**The Future of Campus Experiences** 

# The Art & Science of Looking at the Future





Garry Golden
Forward Elements
April 4, 2019



Thinking Like a Futurist



**Drivers of Change** 



**Discussion** 

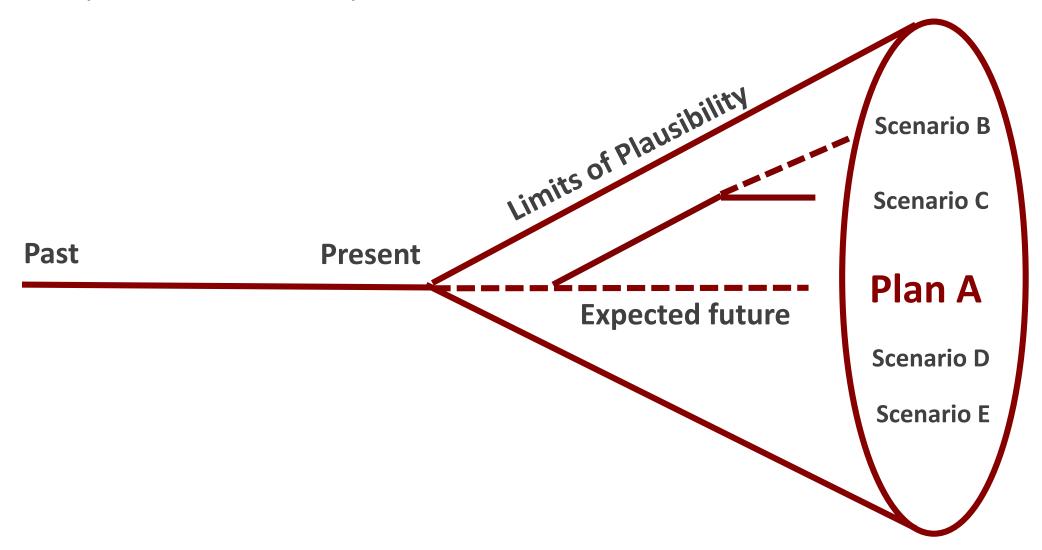
# Thinking Like a Futurist?





#### Foresight 101: Cone of Plausibility

Multiple Outcomes, Multiple Time Horizons



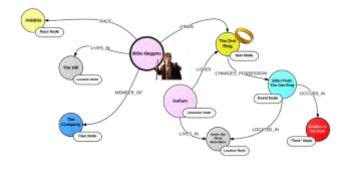
# Slide Sequence Removed

# Every day I make an effort to move toward what I do not understand.

- Cellist, Yo-Yo Ma

## While we are talking about change...

### Cute Kid Pictures Removed







Data-driven Change: Era of Experience Graph

Wellness

Role of Place

2020 - 2030

How might data-driven change reshape the campus experience?

What might be the most valuable type of data in 2030?



#### How might we better understand ourselves and share our stories?



Resume



**Portfolio** 



**Presence** 







## In the News

Experience.ai to capture experience data from learning, project performance and decision processes within case study groups. Harvard's vision is for every student to retain rights to experience data and build a critical personal digital asset for the future.







#### Context of the Creepy Line

# Google

Inevitability of Dealing with the Creepy vs Compelling Line in...

# Data & Al-Driven Innovations

## Dog & Web Slide Sequence Removed

**Outputs Mission:** 

**Access to Collections** 



**Outcomes Mission:** 

Behavior Change & Development of Skills

#### **Outcomes-based Value Creation Depends on...**

# **Competitive Advantage**

#### Prescriptive

What should happen..!

#### **Predictive**

What might happen..

#### Descriptive

What happened..

**Complexity of Data and Relationship Management** 

#### **Emergence of Data & Outcomes-driven World**



Social Data



Health Data



Device + Infrastructure



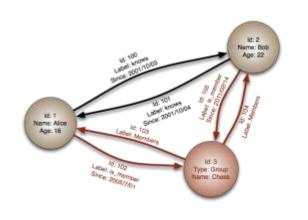
**Learning & Doing Experience Data** 

Data isn't truth, but language.

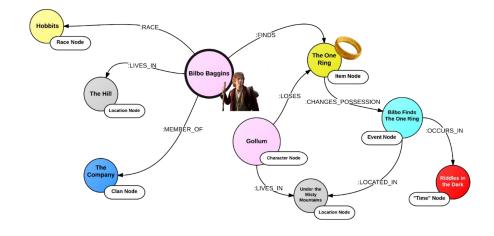
It can help us decide or express the truth, but data never is the truth.

- Deanna Day

#### How much can change in ten years...?





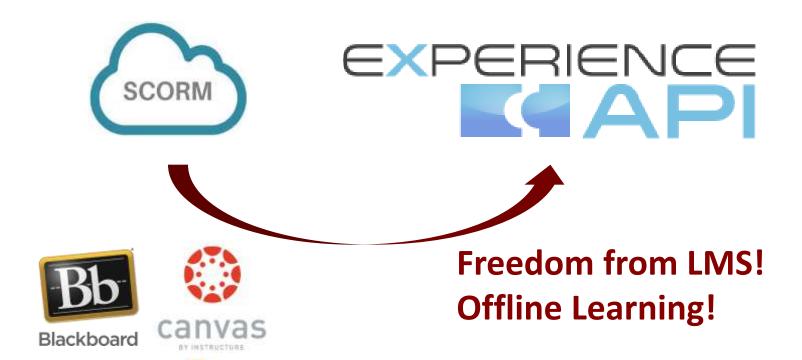


**Connected Data Graph Analytics** 

Era of
Social Graph

Era of **Experience Graph** 

#### Signal of Change from the Learning & Development (L&D) Community



Activity Streams <Actor, Verb, Object> "I did this"





"I did this..."

**Statements** 

Seamless Integration into Manager & Team Tools



#### **Assumption for 2020s:**

Experience Data emerges on Campus, in the Workplace & in personal Lifelong Learning

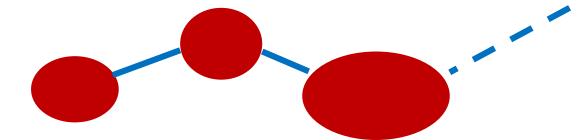
#### **Scenario: Talent Embraces Experience Capture Analytics**

☐ Sarah *read* an article on blockchain for automating compliance ☐ Sarah **opened** an Evernote folder on blockchain solutions ☐ Sarah *watched* a Youtube video introducing the Ethereum blockchain ☐ Sarah *searched* for Ethereum Meetups in NYC "I did this..." ☐ Sarah *attended* the Crypto Compliance conference in NYC **Statements** ☐ Sarah **created** a List of 'Ethereum Developers' (People) on Twitter ☐ Sarah *interviewed* the Head of Blockchain Solutions at JPMorgan ☐ Sarah *mentored* with Joe Lubin co-Founder of Consensys ☐ Sarah *completed* a course on Ethereum's Solidity programming language ☐ Sarah *demonstrated* her pilot Ethereum application at a NYC Meetup ☐ Sarah *taught* a Coursera MOOC on Ethereum for KYC / AML Sarah was hired as Lead Developer of Blockchain Compliance Solutions at Fidelity



# <actor, Verb, Object> "I did this"</a>

☐ Thomas **liked** a **Lucille Clifton** poem he heard on iTunes ☐ Brentwood library **invited** Thomas to a **Creative Aging poetry event** ☐ Thomas **enrolled** in a creative writing class at Community College ☐ Thomas **read Alice Walker** for his creative writing course ☐ Brentwood library **recommended** an obscure Rita Dove poem ☐ Thomas <u>performed</u> his poetry at a local café event ☐ Brentwood library **invited** Thomas to a **program on self-publishing** ☐ Thomas **self-published** his first collection of poems ☐ Brentwood library <u>added</u> his book to their collection



#### **Enterprise L&D: Early Adopters Preparing to Scale**



#### How did we do it?: Where are we now?

#### April 2018:

Over 3 million statements so far

Over 110,000 learners who are sending xAPI statements

We are using 1 LRS system which is segmented by data for each country

Last three months increased our total by 1 million statements

#### Summer 2019:

We will have 250,000+ learners using it and sending xAPI

We will have a global learning analytics community of around 100 people whose role (full/part) is to look at learning data and help transform our learning

Start small and grow...this is a long journey

#### Outcome: Seeing What People Need vs They Tell You They Need

Clicked Create Delete Downloaded Launched Listened Loggedin Opened Paused Read Searched Share Skipped Viewed Watched

#### Searched verbs

#### Running training needs analysis in real-time

Using the searched verb we can analyse what people are looking for example:

- Tax legislation
- Tax processes legislation
- Excel macro creation
- Macro creation
- Coaching
- Coaching skills
- Coaching management skills

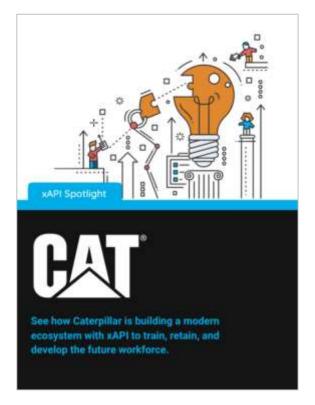
We can use this data to:

- Highlight need see what learners want
- Match available learning to need and tag our content – dynamic curation
- Spotting holes in our learning our gaps
- Global coverage spotting patterns across countries, trending topics

#### **Case Study: Caterpillar**







## Understanding LMS/CMS Activity

**Expanding Video-based Analytics** 

When trying to help someone learn, the team considers these three vital questions:

- 1. Where does the learner want to go?
- 2. What does the learner know?
- 3. How can we develop the individual?

#### Scenario for 2020s:

#### First Year Students Bring Experience Data to Campus







#### **Assumption to Explore**

By 2025, Experience Data Will Become Our Most Valuable Digital Asset

and Controversial

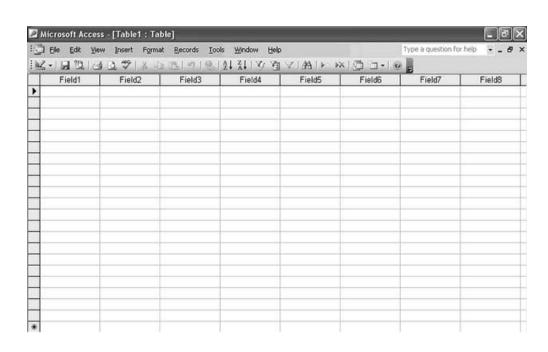
If we capture experience data...



"I did this..."
Statements

How do we approach regulations?
How do we avoid the creepy line?
How do we make sense of it?

#### **Building a Connected Data Foundation for Innovation**



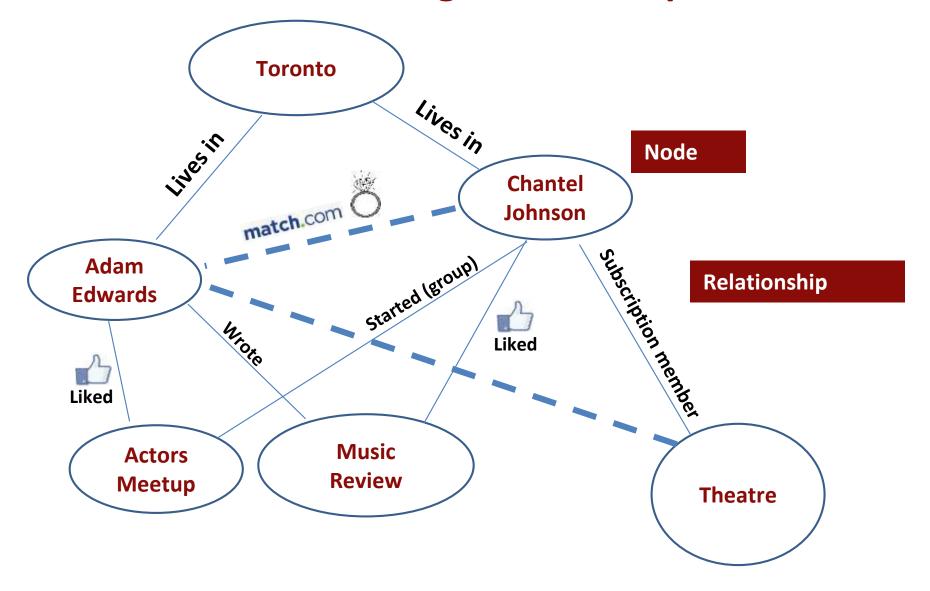
**Tables = Past** 



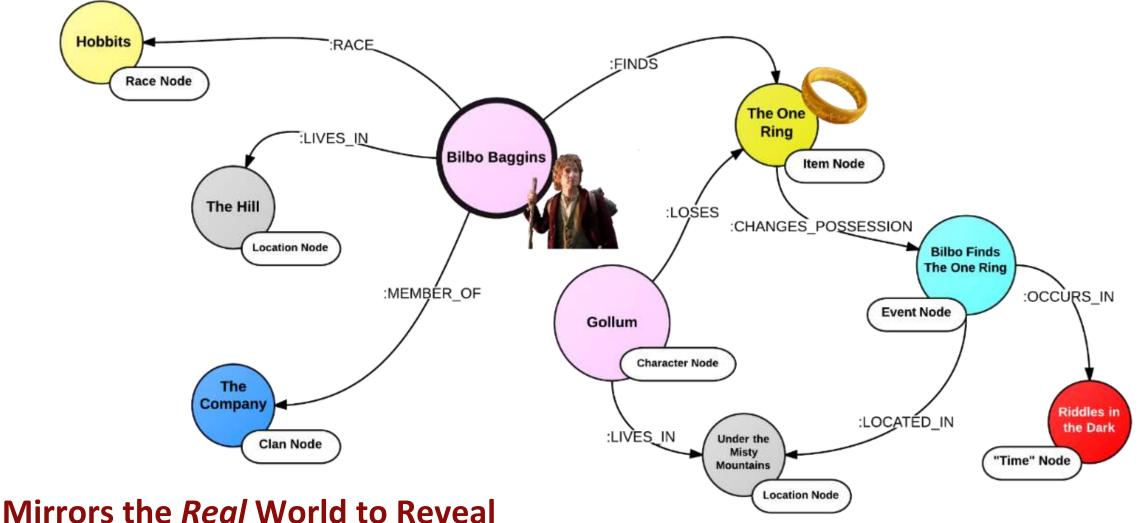


**Graph Thinking = Future** 

#### **Graph Database = Understanding Relationships + Connections**

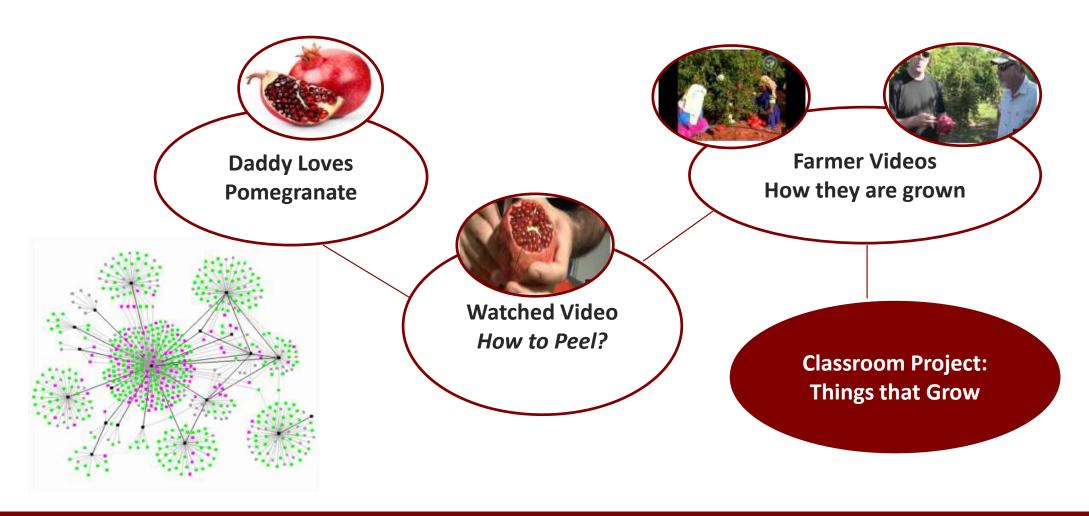


#### **Graph Solutions for Understanding the Campus Journey vs Outcomes**



Influencer Profiles, Decision Pathways and Recommendations

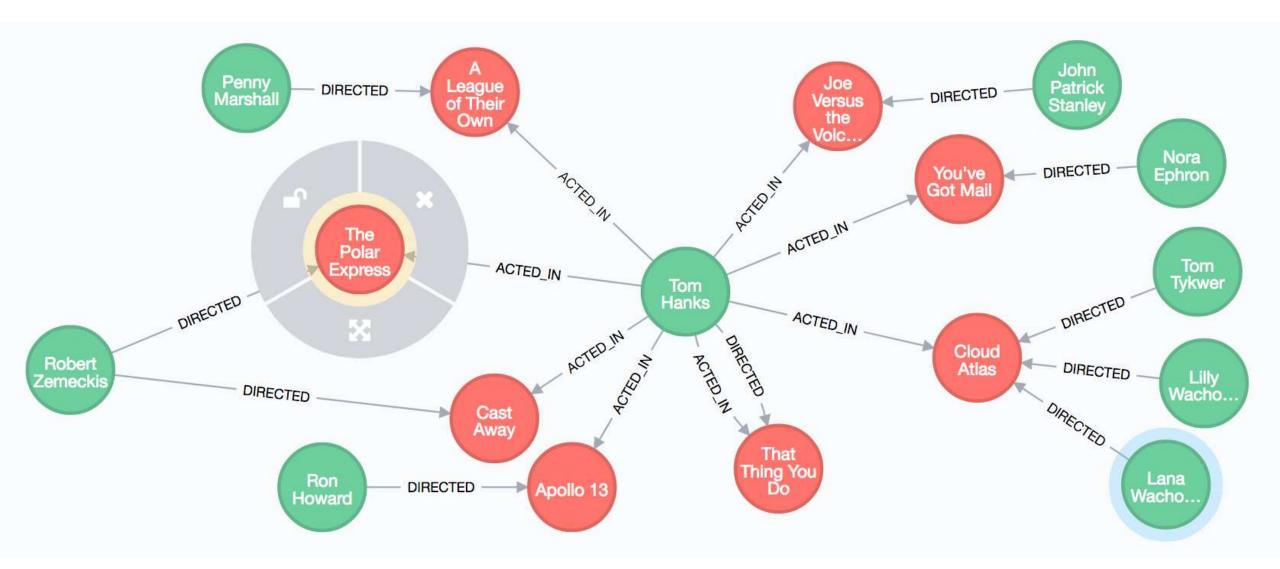
#### Noah is Connecting Things on his Experience Graph



Who might have permission to see connections of experiences? Learner, Teachers, Parents, Libraries, Museums, Park Staff...

#### How might we structure data?

#### Connected Data of People, Departments, Materials & Outcomes (in theory!)

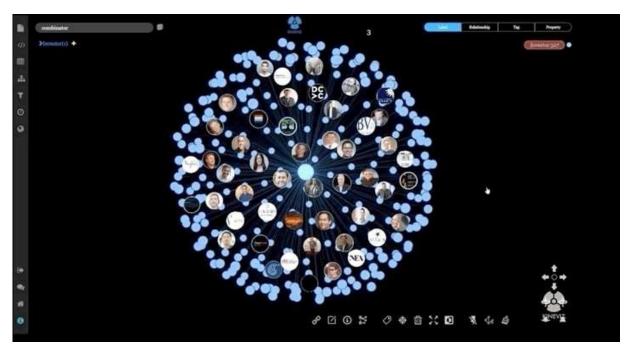




#### **Early Signals of Efforts to Connect Dots on Experience Data...**

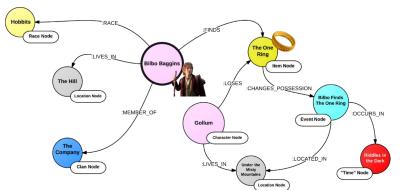
Evaluating Investor Performance Using Neo4j, GraphXR and ML





#### Scenarios 2020s: Students Arrive on Campus with Experience Data





2020-2030

**Experience Graph** 

- ☐ Libraries
- Connections to Collections
- □ Course Materials
- Out of ClassroomExperiences
- □ Work / Internships

2010-2019

**Social Graph** 

#### Critiques of Experience Graph Scenario

# **Audrey Watters**

I am an education writer, an independent scholar, a serial dropout, a rabble-rouser, and ed-tech's Cassandra.



**Techno-solutionism in Education Always Fails** 



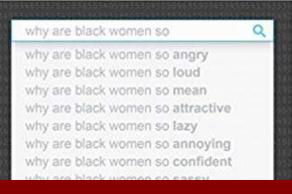
**Hack Education** 

The History of the Future of Education Technology

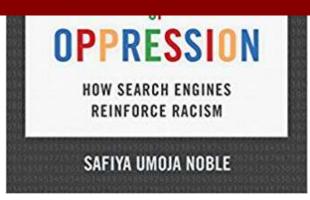


Obsession with Performance Metrics





Reinforces Societal
Bias and Divides



#### Synchronous Massive Online Classes (SMOCs)



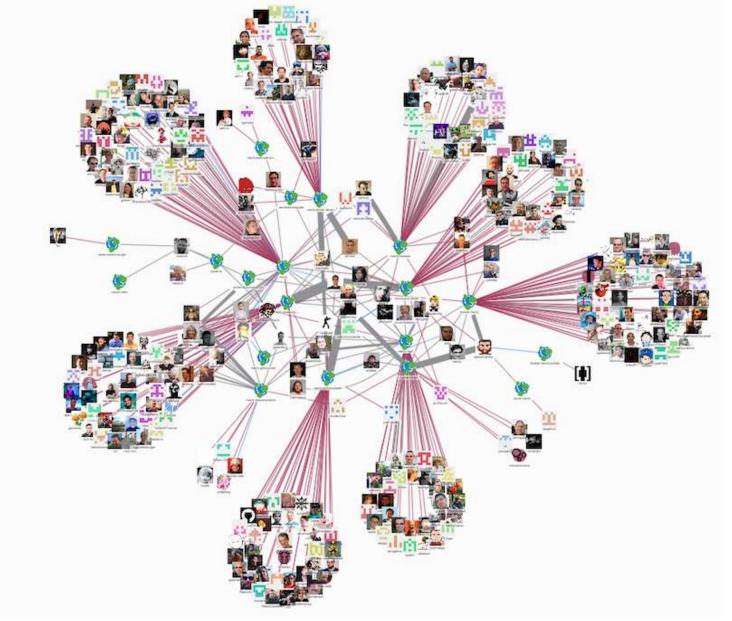
"I didn't know anything about how the university functioned."

James Pennebaker

Project 2021

What if...
First Year students arrive on campus with lifelong experience data...

What if..
We could see more
connections across learning,
teaching and real world
experiences to and outcomes





# Should we create Campus Community... ☐ Learning Graphs? ☐ Experience Graphs? ☐ Knowledge Graphs?

### Expanding the questions we can ask...



Members – Companies – Jobs – Skills – Schools – Knowledge

#### **Follow Along Parallel Efforts**

### **Blockchain for Privacy, Control & Authentication**

#### THE LEARNING IS EARNING 2026 GAME

BEGINS IN THE YEAR 2026 WITH "THE LEDGER,"
A NEW SYSTEM TO TRACK EVERYTHING YOU'VE LEARNED.



#### The year is 2026

Our familiar institutions are about to be disrupted by blockchain technology, which allows you to create your personalized Ledger Account:



You can also use the Ledger to find investors in your education. Since the Ledger is already tracking income earned from each Edublock, you can offer investors a percentage of your future income in exchange for free learning hours. Our smart contracts make these agreements easy to manage and administer.





FEB 21, 2019

# Malta to Store Education Certificates On a Blockchain

Could Micro Credentials on Blockchain be a Tipping Point for Privacy & Control?

### Issue verifiable digital records.

Learning Machine provides a complete system to issue official records using a blockchain-anchored format that is instantly verifiable anywhere in the world.

# Breaking Newsus

News from 2025

# Supreme Court Upholds Students' Rights to Own Experience Data

College students earn the right to learning and performance analytics in the classroom. The ruling will now be tested beyond campus for workplace analytics as society tries to understand implications of this data-driven age.



"The resume is dead.

Long live the Experience Graph"

# DAILY ALTERNATIVE FACTS

#### Class of 2028

### **Donates Experience Data**

More than 70% of the Class of 2028 have open-sourced access to their Learning Pathways. Anyone in the world eager to learn similar subjects and skills now have learning pathways to explore.

# **BREAKING FAKE NEWS**

News from 2032

FBI Investigating Massive Hack of U.S. Workforce Experience Graph

Nearly 125 million Experience Graphs hacked from America's leading corporations.



Older Millennials point fingers at younger Gen Z co-workers: "You should have stopped at the Social Graph".

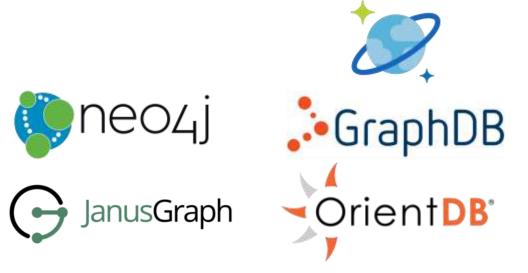
### **Learning Curve**







**Experience Analytics Learning Record Stores** 



**Graph Analytics** 

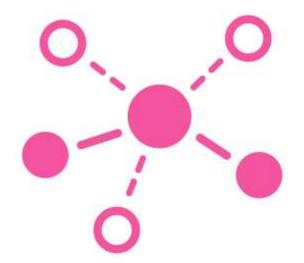
#### Scenario: Campus Life Meet Connected Experience Data

#### Short-term - 2019 -2023

- ☐ Map out opportunities & challenges
- What experience data could we create, capture and connect?(e.g. appropriate/ethical; actionable)
- ☐ Engage with existing efforts

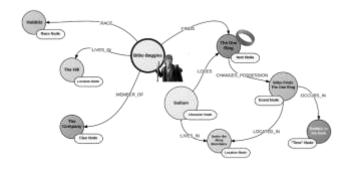
#### Long-Term – Beyond 2023

- Overcome Challenges(e.g. blockchain used for privacy)
- ☐ Align institutions, policies, social norms & technology capability



# Questions... Reactions... Builds?





Age of Experience Graph



Health & Wellness



Role of Place

2010 - 2019
Positive changes in health + wellness?

2020 - 2030
What challenges and opportunities do we anticipate will change around campus life?



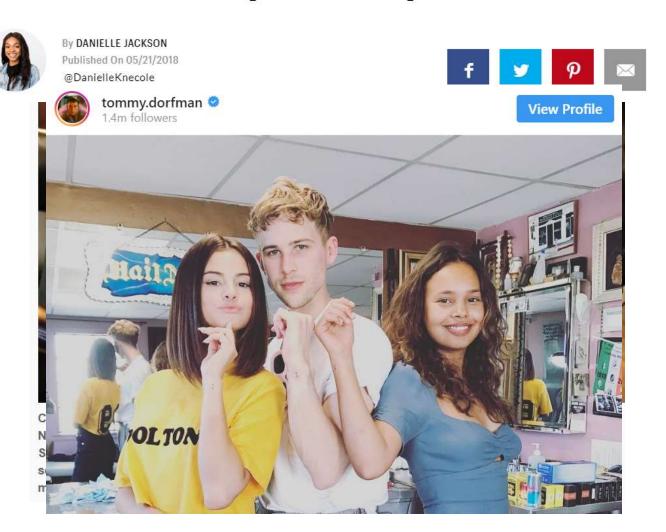
### Rise of Campaigns, Memes and Movements

# Here's What Clay's Semicolon Tattoo on '13 Reasons Why' Actually Means





**Amy Bleuel** 



## **Institutional Capacity & Culture**



Programs: Repost, Mindful Mountaineers, Take 10, Semicolon Week

















### **Evolution in Dealing with Disciplinary Challenges**

# **Training Staff in Restorative Practices**

An emerging social science that studies how to strengthen relationships between individuals as well as social connections within communities.



#### PIMA COUNTY PUBLIC LIBRARY



#### Five Universal Truths of Human Interaction

- 1. People want to be treated with dignity and respect.
- People want to be asked rather than being told to do something.
- People want to be told why they are being asked to do something.
- 4. People want to be given options rather than threats.
- People want a second chance when they make a mistake.



George J. Thompson III, PH.D., Verbal Judo





### **Student-led & Peer Driven Change**



HEALTH

# A New Sign That Teens Know They Aren't Struggling Alone

Their worries about mental health might have a bright side.

AMANDA MULL FEB 25, 2019



# NCAA Awards Grant for UK College of Education Mental Health Research

By Amanda Nelson Feb. 28, 2019

#### **Student Athlete Voices on Mental Health**

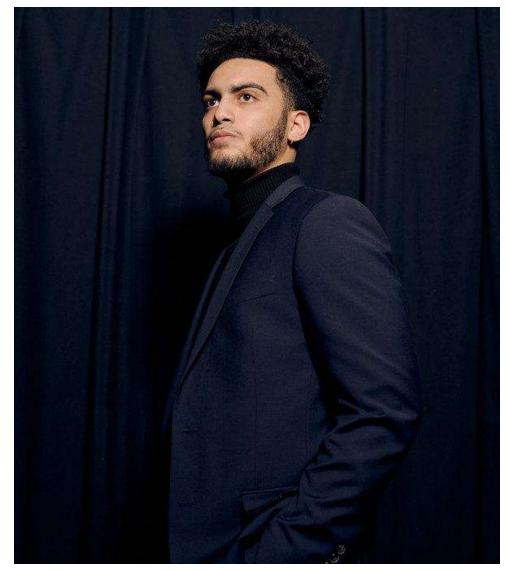
March 14, 2019

The New Hork Times By Pat Borzi

# A Top Scorer Changes the Definition of the Complete Player

"A lot of people in my position wouldn't want to say anything," Marquette guard Markus Howard, the Big East player of the year, said of going public about seeking mental health counseling.

...Olympians <u>Michael Phelps</u> and <u>Gracie Gold</u> to the N.B.A. star <u>Kevin Love</u>



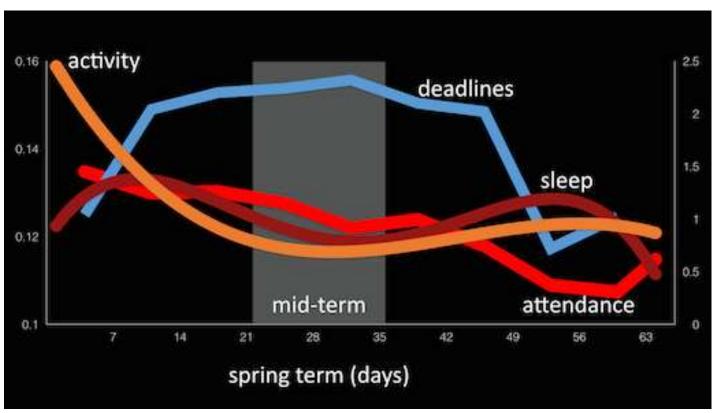
Vincent Tullo for The New York Times

### **Projects to Understand (Campus) Population Health**



#### **Student Life (2014 – 2015)**

- ☐ Passive and automatic sensing phone data
- □ 48 Dartmouth students; 10 week term
- Mental health
- □ Academic performance
- Behavioral trends

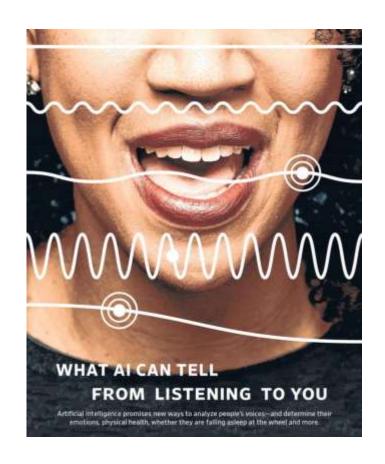


### The Next Element = Interventions

# Wellness has its own set of creepy vs compelling issues



#### The Debate will be 'should we'...

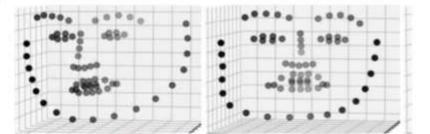


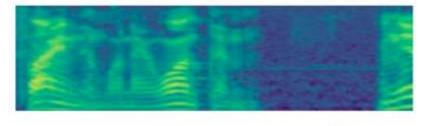
Intelligent Machines

# Your smartphone's Al algorithms could tell if you are depressed

Smartphones that are used to track our faces and voices could also help lower the barrier to mental-health diagnosis and treatment.

MIT Technology Review





um . . . yeah . . . i mean

by Will Knight December 3, 2018

#### 2020 -2030:

#### How much wellness data will students have vs understand?

# Million Data Points Per Person

Dr Lee Hood

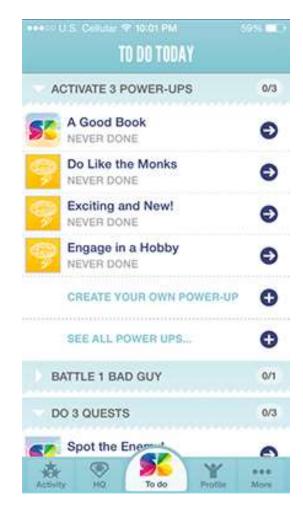




#### 2020 - 2030:

### What services/expectations will they bring to campus?





# Amazon develops 'health and wellness team within Alexa division'





PRODUCTS May 16, 2018

MetLife and Ernst & Young Create Multi-Channel Wellness Program

The solution will focus on behavioral change by providing personalized wellness plans, according to MetLife.

#### 2020 - 2030:

Will health factors for indoor environments be seen differently?

# SoFi and Delos Partner to Bring Delos' Home Wellness Solutions to Homeowners

Mar 22, 2019 💂 0

Wellness real estate and technology company, Delos™, is collaborating with online personal finance company, SoFi, to ensure homeowners will have an accessible financing path to implement Delos' DARWIN Home Wellness Intelligence Network, a fully-integrated residential solution designed to enhance the health and well-being of residents.

### End



**Discussion** 

What is the biggest risk we should take over the next five years to align our campus experience to this emerging world?





# **Garry Golden**

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Two Rs

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