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Link to the original blog post on Cultural Bytes
Link to Ethnography Matter’s special feature on talks from EPIC

The Conceit of Oracles: How we ended of up in a world where quantitative data is more valued than qualitative data

Overview of the talk:

Technology is playing an increasingly large role in decision-making processes. But are we really making more informed decisions? How do we even know we are asking the right questions? And what are we missing in our measurement-driven world?

This talk seeks to answer these questions by looking at methods of prediction from the Oracle of Delphi in Ancient Greece to the use of electricity during the Scientific Revolution and the invention of computers in the Age of Information. These historical events provide a lens for understanding how we ended up in a "data-driven" society: a world where computers are mostly valued as predictive machines; quantitative output is seen as "truth"; and the qualitative cultural context is seen as inferior to quantitative data. The danger in predictions, forecasting, and measurements that over-rely on quantitative data is that a misleading representation of actual human experiences can result. This is a terrible mistake and one that is committed frequently within organizations.

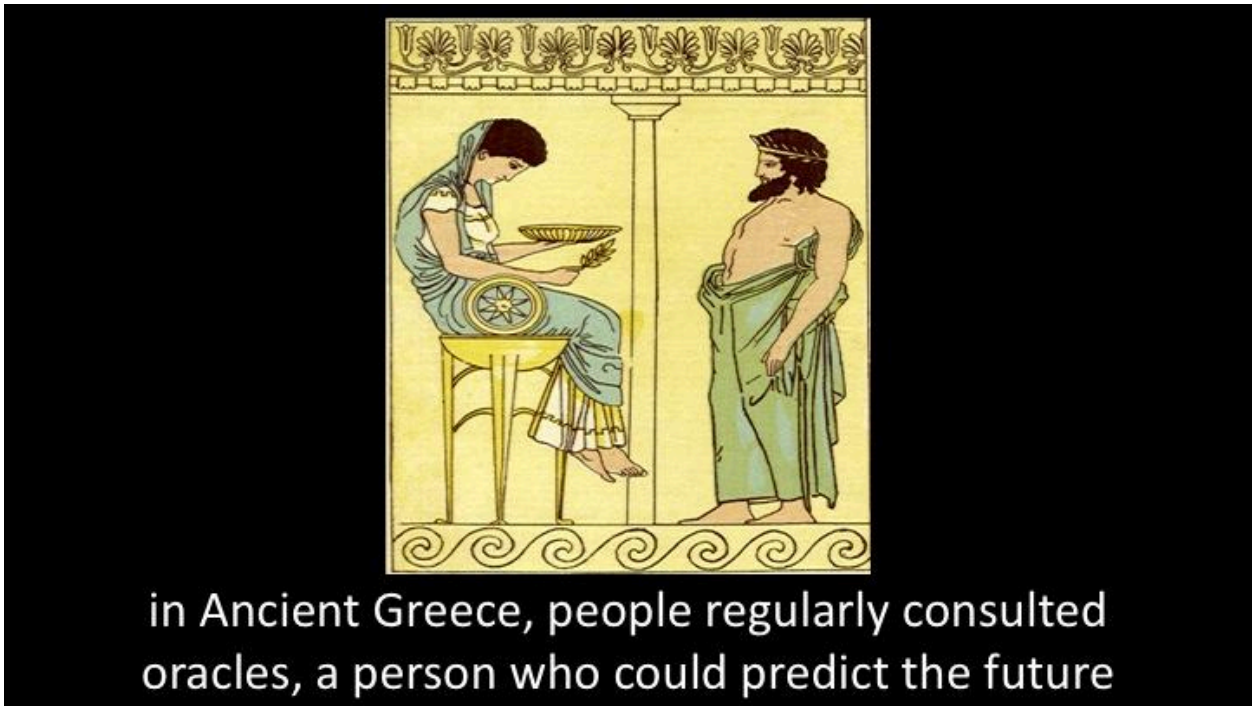
We are facing one of the biggest struggles of our times: the challenge for institutions is to treat their stakeholders (e.g users, employees, consumers, audience) as humans, not as data points. Connected to this challenge is the dominant belief that numerical measurements such as Big Data, will lead to more knowledge, justifying investment in quantitative research at the expense of qualitative research.

This struggle speaks to the important role of ethnography in ensuring that businesses, governments, and organizations are people-centered in the face of bureaucracy and numbers-driven thinking. But before ethnography can play a more strategic role inside institutions, the field needs to evolve. Ethnographers need to focus on making their work more visible, more integrated with Big Data, and more accessible. Our job is to teach organizations to design for experience, not usability; to create for people, not users.

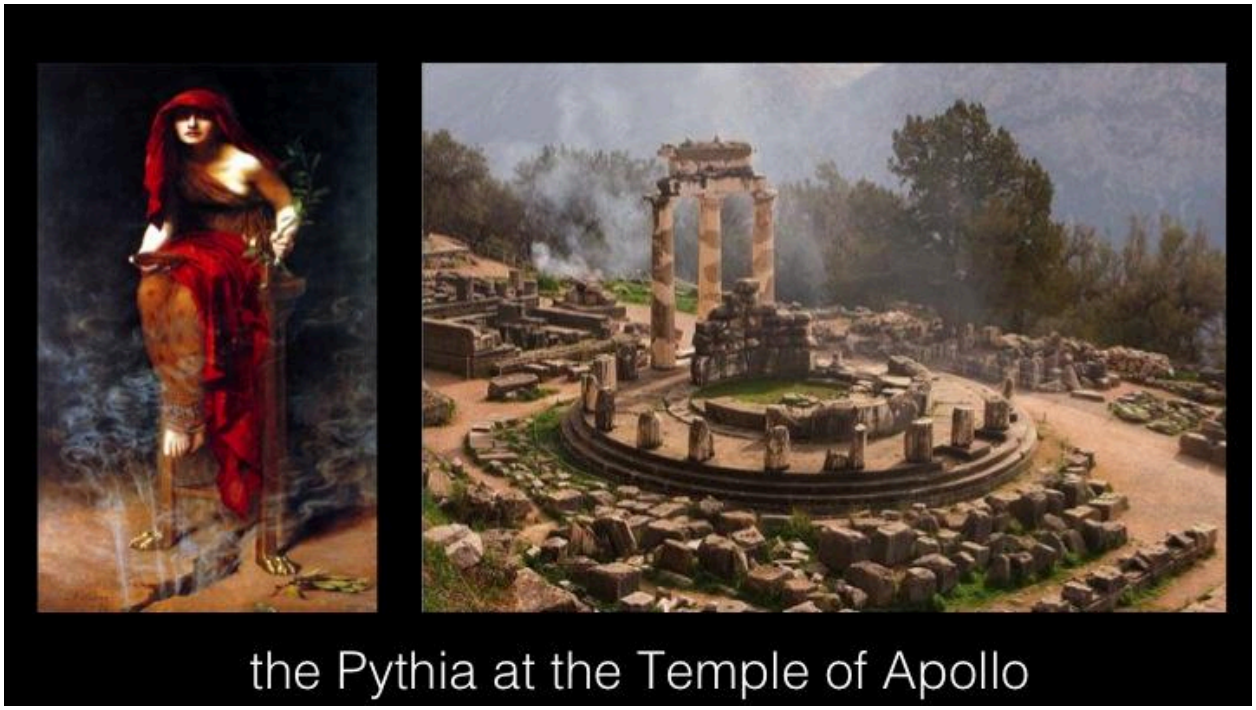
When companies prioritize experience, they will see a greater business value in bringing in experts to provide explanatory knowledge that is connected to real social experiences

These are the unedited notes for the 5 parts of my 45 minute talk. I also have created a research blog on tumblr for this talk that tracked all my sources and thought processes.

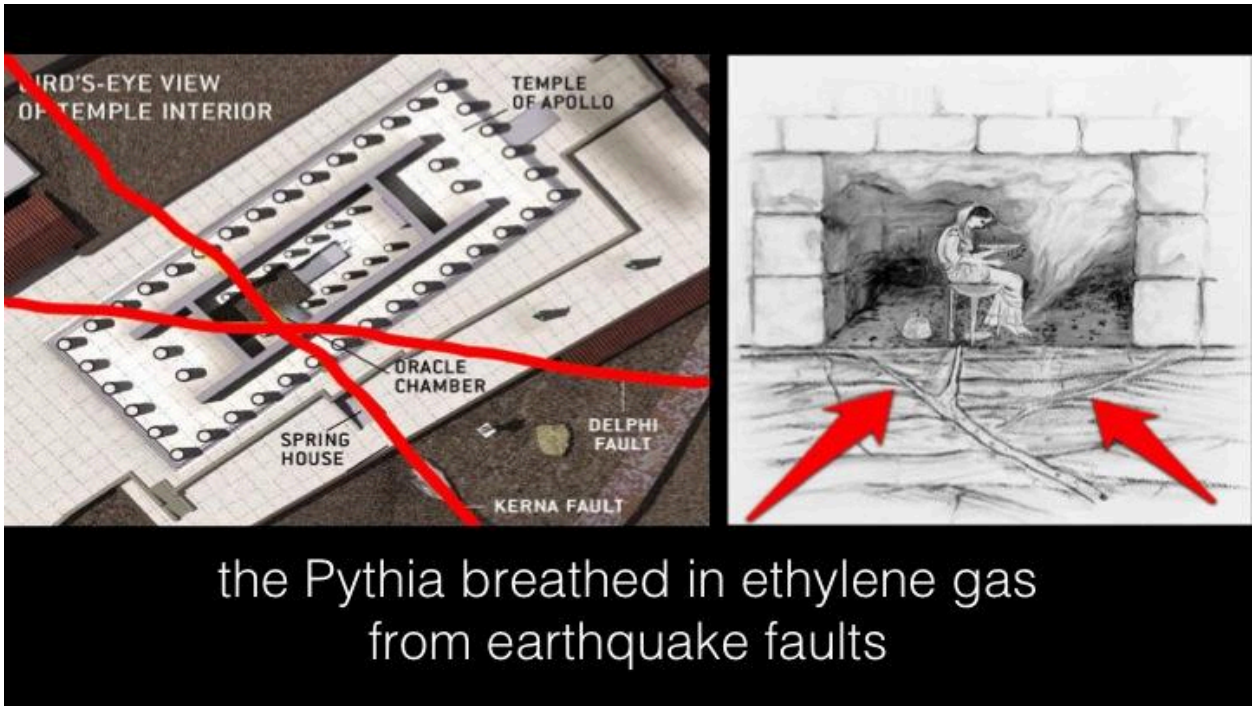
PART 1: An abbreviated evolution of oracles from priestesses in Ancient Greece to computers



For over 12 centuries in Ancient Greece, consulting oracles - "a person who could predict the future" - was a part of everyday Hellenistic life. People, poor and wealthy, slaves and the free, asked for oracles to help them answer important life questions such as should I get married? Will I come back from war alive? Or questions related to business matters - should I invest in this voyage? Or questions related to political affairs - should we advance into this territory?

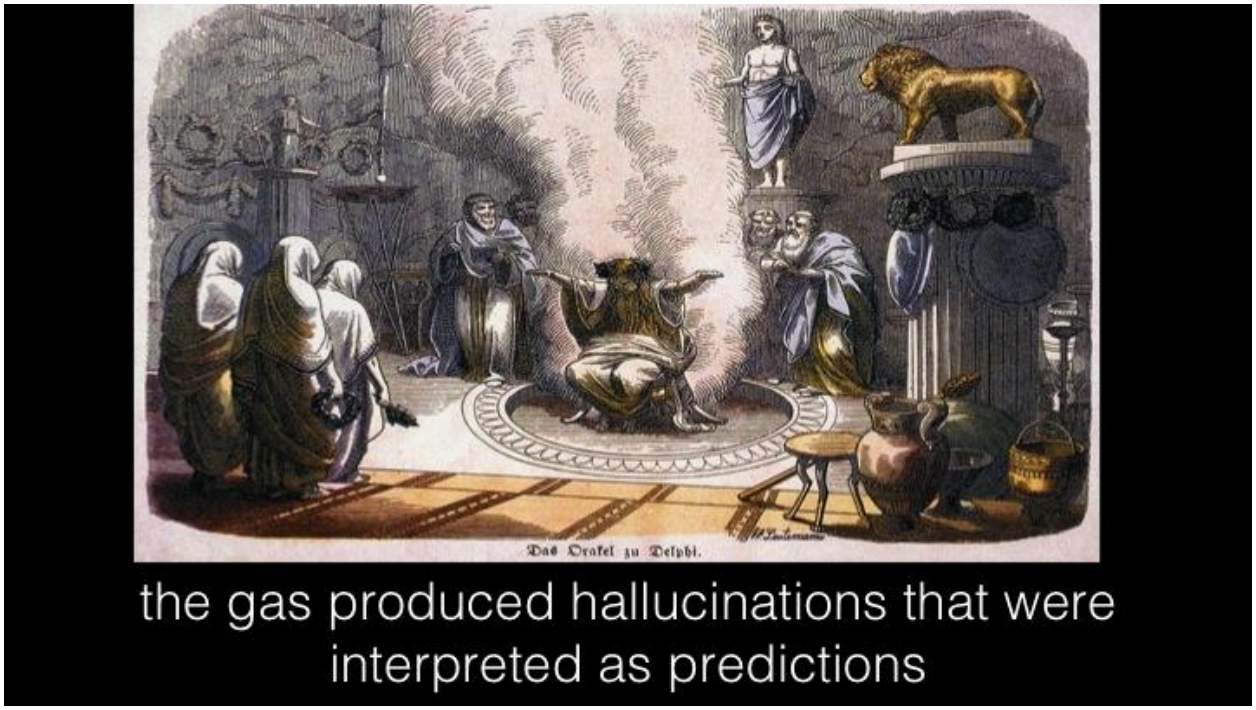


The most famous and powerful oracle was the Pythia, priestess of the Oracle of Delphi at the Temple of Apollo - Apollo being the god of prophecy.
Recent research from geologists and other experts has revealed that when giving prophecies, the Pythia inhaled enormous amounts of ethylene gas.



It just so happens that The Temple of Apollo was built over two massive earthquake faults, which created fissures that allowed for the release of petrochemical fumes from the deep Earth.

So essentially, when the Pythia went into prediction mode, she was essentially tripping out.



And the Pythia passed down oracular predictions, derived from the hallucinations, to priests who then interpreted her chemically-induced babble as official words for kings, dignitaries, and philosophers.

It's pretty crazy that for several centuries this was how small and big decisions were made. But there was a methodology to this entire process! There wasn't just the Pythia, there were many priests at the temple who would listen and interpret her predictions. The priests consulted with the person soliciting the prediction and learned the details of their situation, which helped them to present the Pythia's predictions in a relevant context.
And this process was tedious because the Pythia's words were often indecipherable. Often times, people had to wait for days before a prediction was ready.
This was their form of research.

None of this sounds crazy. In terms of basic data gathering, it sounds completely logical. But then you go back and realize the Pythia was high!

Reliance on prophecy is not just a Grecian phenomenon. From the oracle bones of Ancient China to the Mayan calendars - oracles have helped people answer the big question - **what happens next?**

Why has humanity been **so determined** to get a certain answer to this timeless and difficult question? Because **the future is scary.** Making decisions without any assurances of the outcome can be frightening. And this is just as true today as just as it was for the ancient

Greeks. While today we might dismiss the predictions of someone tripping on fumes being released from cracks in the earth, **we still believe that prophecy is possible.**

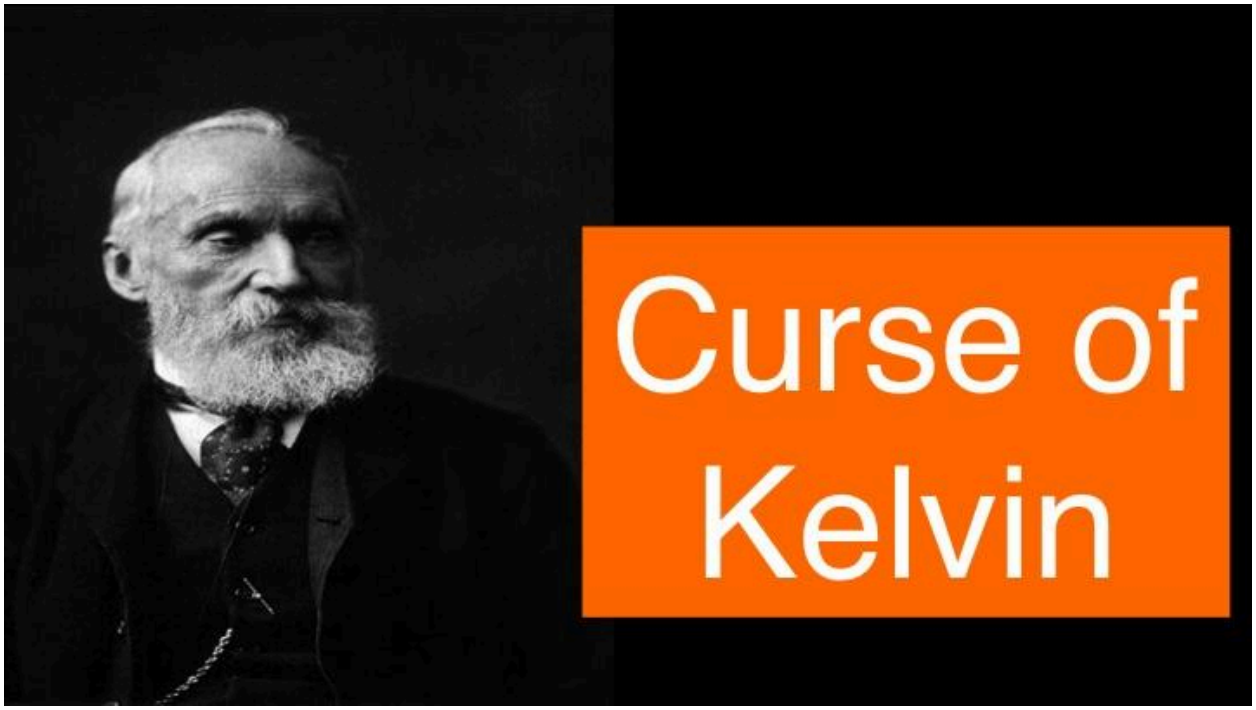
The Oracle of Delphi is still here. We **still have** the same question - "what comes next?"
We may feel that our modern capability to predict the future is superior to the abilities of the Ancient Greek oracles because we have **the advantage of the breakthroughs from the Scientific Revolution** that created the scientific method, a rationalistic set of approaches to investigate the world.

One of the most fascinating notions to emerge out of the scientific method is the idea that processes of investigation have to be based on empirical and measurable evidence. Measurability was important because it allowed for other scientists to iterate upon the experiment.

The idea that the world could be operationalized into a set of precise quantifiable measurements - that light, the stars, or the body could be mediated as a set of numbers - was a new and powerful idea. But when you look at the history of the methodology, of how it's derived, it wasn't necessarily so clear cut because it wasn't just based on merit. It was based on the politics of the time.

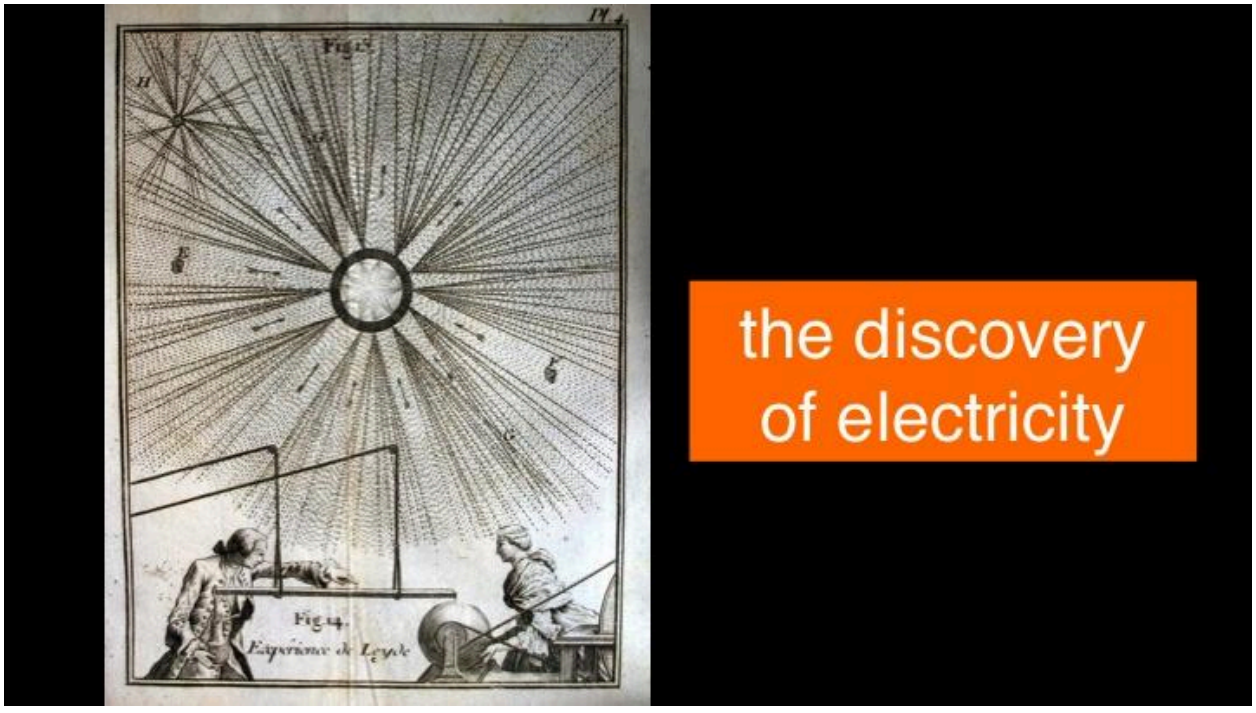
The history of modern measurements starts with this guy here: Irish-born English mathematical engineer, William Thomson 1st Baron Kelvin, aka Lord Kelvin, who during the Age of Measurement and the Scientific Revolution, said that if you can't measure something, then it doesn't qualify as knowledge. His exact words were:

> *"When you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind."*

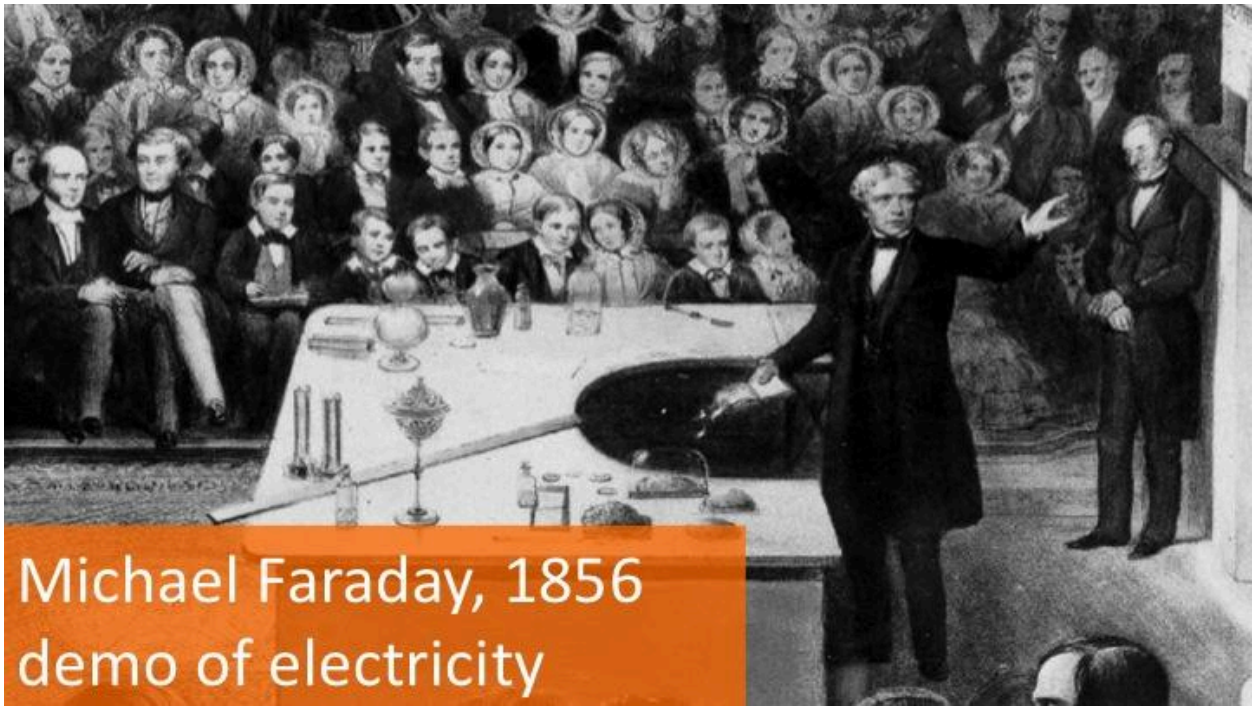


His idea, that anything worthy of knowledge is measurable, is commonly referred to as the Curse of Kelvin.

His pronouncement may seem a bit harsh, but he was living in the Age of Measurement - a time when a series of discoveries from non-Euclidean geometry to the Doppler effect, made new forms of measurement possible.



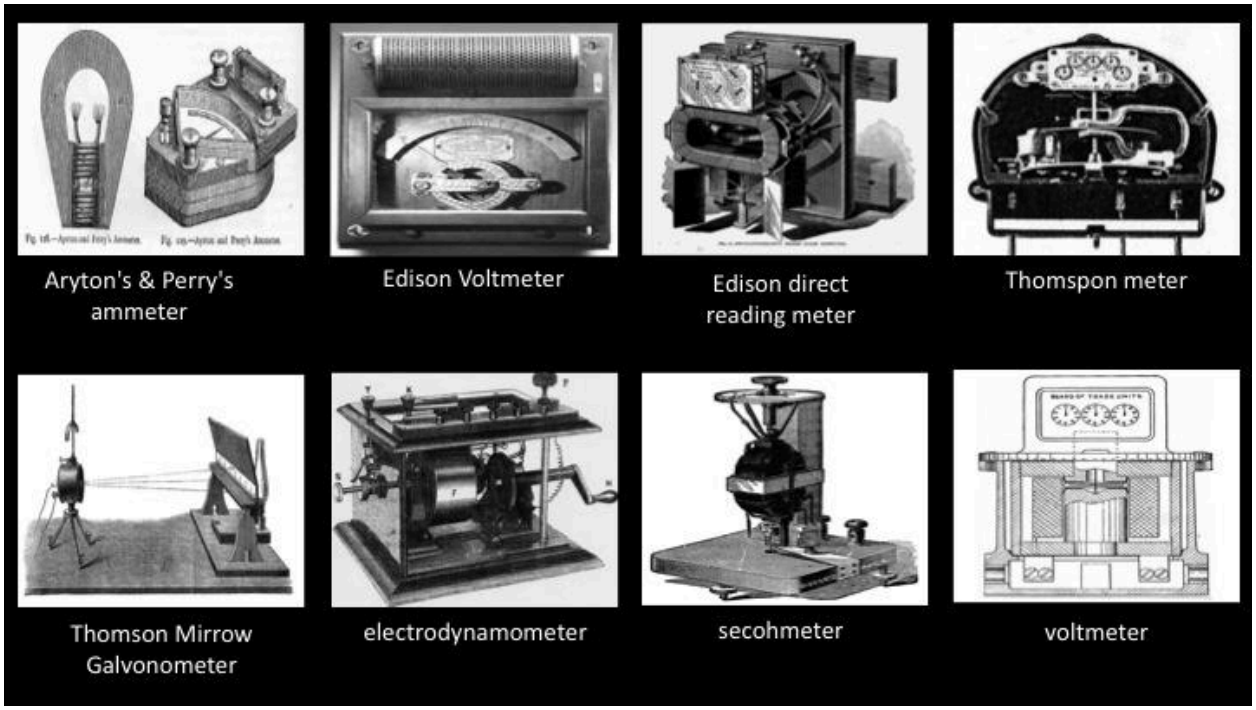
One of the key discoveries of his day, electricity, made it possible to measure things through their electrical fields and provided a whole new field of things to measure – electricity itself. Scientists felt compelled - in a sense, they saw it as their calling to quantify the world. How do we measure the quantity of a message sent through the telegraph? How do we measure speed in a motor? How do we measure the length of a telephone call? But just as scientists had to measure the things that electricity made possible, they also had to measure electricity itself.



It's worth noting that in this very room, now known as the Faraday Theatre, 157 years ago in 1856, Michael Faraday, gave a public lecture, demonstrating electromagnetic induction as part of the Royal institution's Christmas Lectures. He recreated electricity outside of a lab setting.

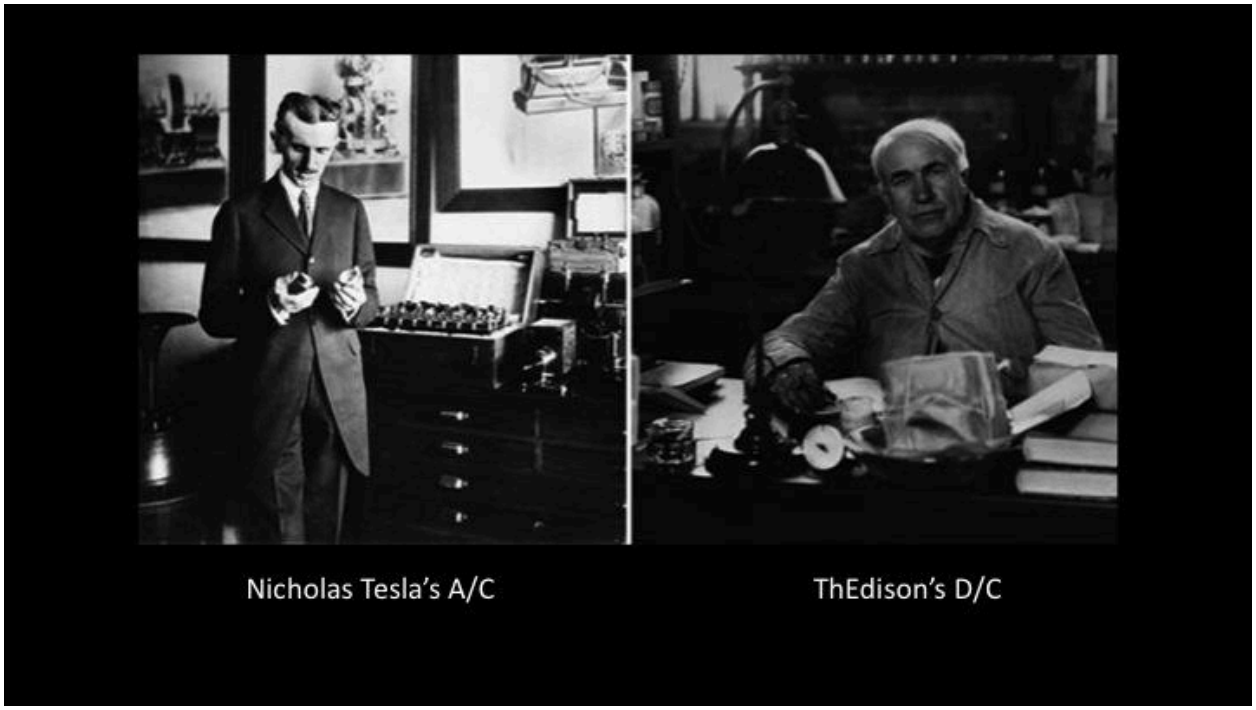
That's pretty cool! I'm standing in the same place that he did. You guys are sitting in the same place as the audience in this picture. So anyways, so at the time Faraday was able to demonstrate electricity, but still no one had yet figured out how to harness it for commercial use. Part of the problem was that no one had figured out how to measure it yet.

So 30 years after Faraday's demonstration, Lord Kelvin, the science philosopher of his time, changed things with his mandate of measurement.

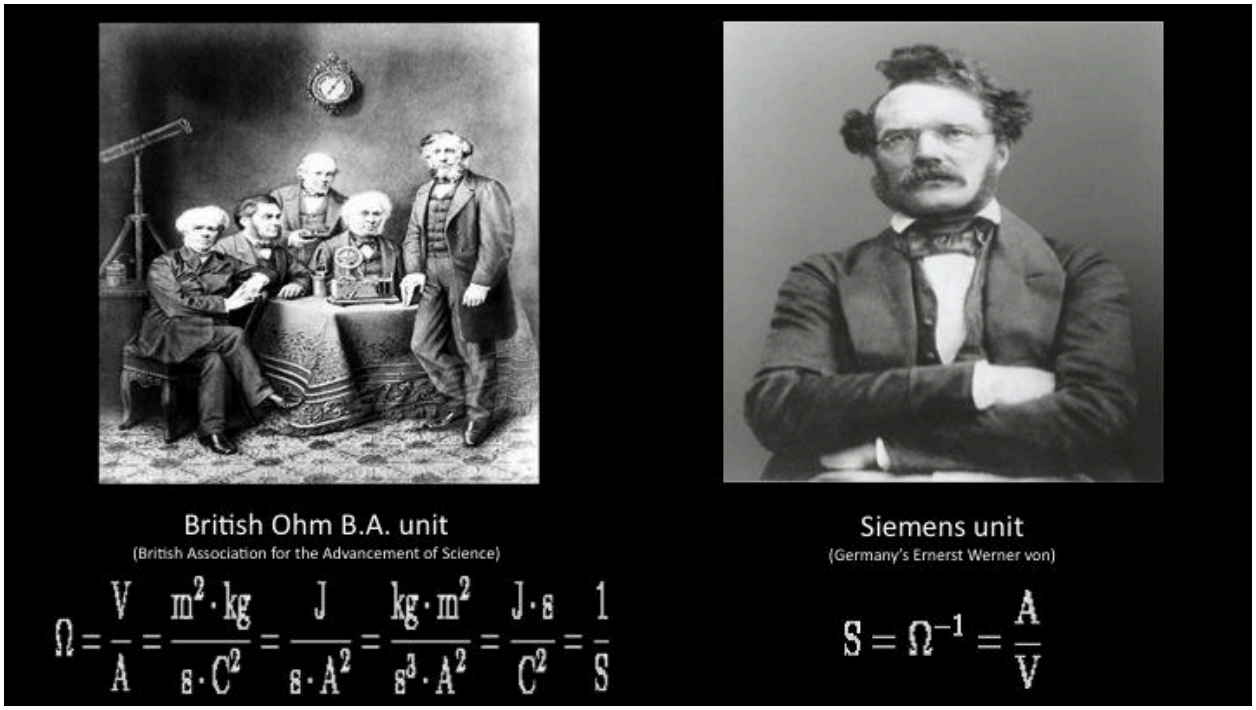


As electricity spread around the world, people developed all these electric measuring devices: Aryton's and Perry's ammeter, Edison voltmeter, Edison direct reading meter, wattmeter, Thomson Mirrow Galvonometer, Electrodynamometer, secohmmeter, ferranti meter.

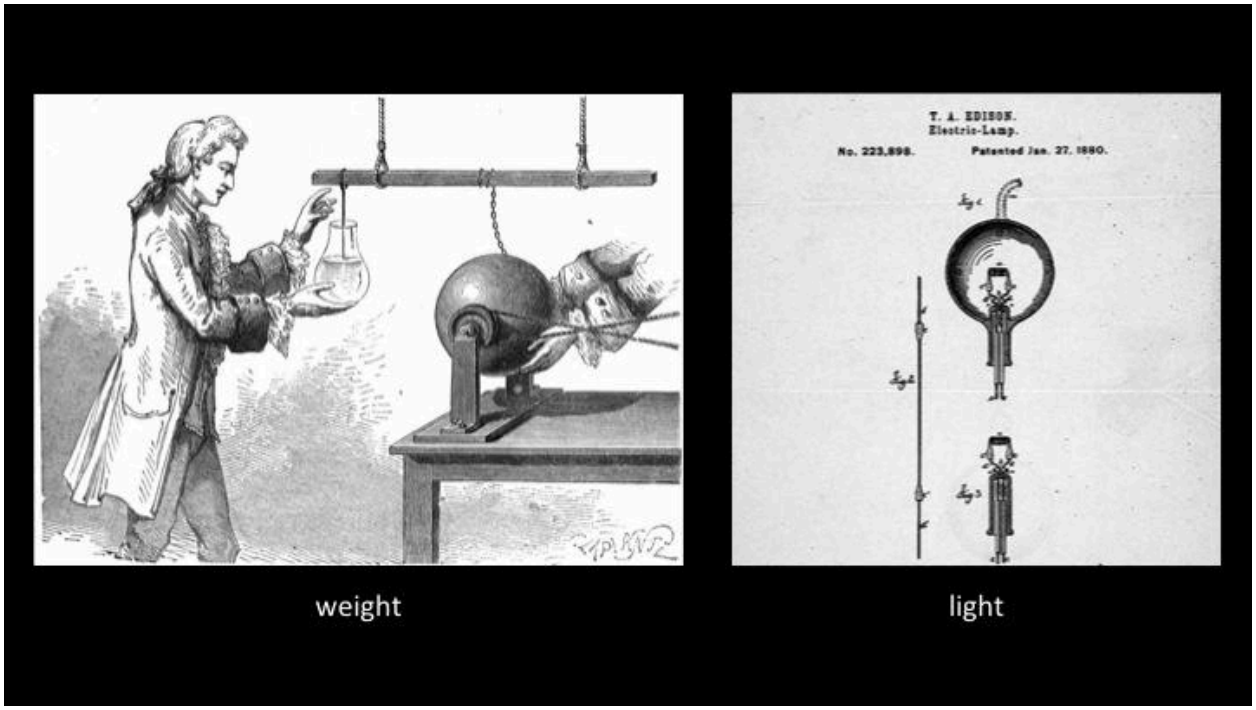
And the reason why there were **so many devices is partly** because this was all **new** and **partly** because **no one could agree** for decades on how to measure electricity.
And the fights about standards ripped apart friendships and played on nationalism.



Is Nicolai Tesla's alternating current or Thomas Edison's direct current better?



Do we use Britain's ohm unit or Germany's Siemens unit?

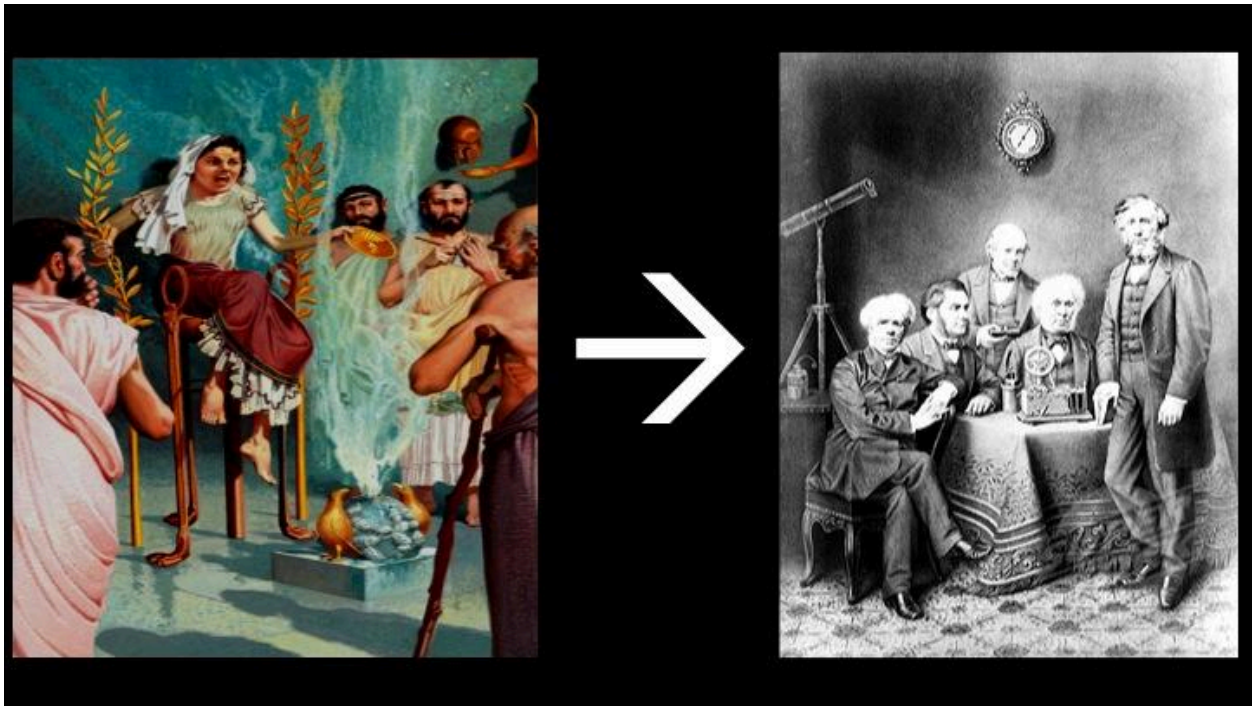


Do you measure the weight of electricity or the light coming out of the bulbs? These were the questions that they were asking back then. This one thing that seems so standard that we all rely on, this known known - was very unknown and mysterious. **When I was going through the correspondences and patents of that time**, you can really feel that people not only had different ideas about how to measure, but what the measurement meant to them.

The debates about electricity were just as heated as open or closed source, web browser apps or native apps, single purchase or subscription software, mac or pc, android or apple, html 5 or flash. And the interpretation of a measurement was just as unclear as the interpretation of a facebook like, a twitter mention, or google search. **Measurement was not always absolute and it was not a given. It had to be worked out over time.**

With that said, we now take measurement as being the truth. The contemporary myth that we are living in – where measurement is absolute - **has become just as unquestioned and sacred in modern times as the oracles were in ancient Greece.**

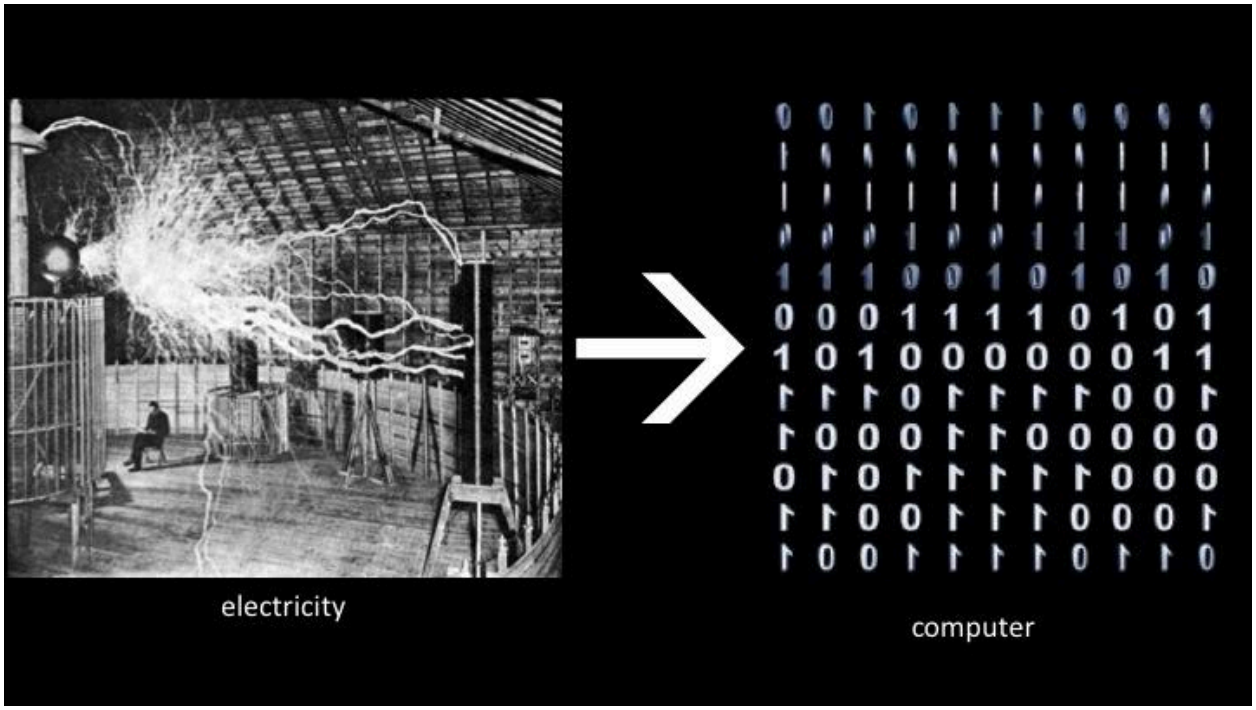
It's just that now, our myths look different and our methods for answering them have changed. These late 19th and early 20th century debates reflect a period in Western history where science challenges religion as the authoritative source to answer the age old question**, what comes next?**



Chanting priestesses were out. Scientists were in! They held the power to produce a convincing image of what happens next. And their predictions were based on measurement.

PART 2: The beginning of the error in conflating measurement with knowledge started with electricity and continues through computers

And this - the Scientific Revolution - is the beginning of the error in conflating measurement with knowledge.



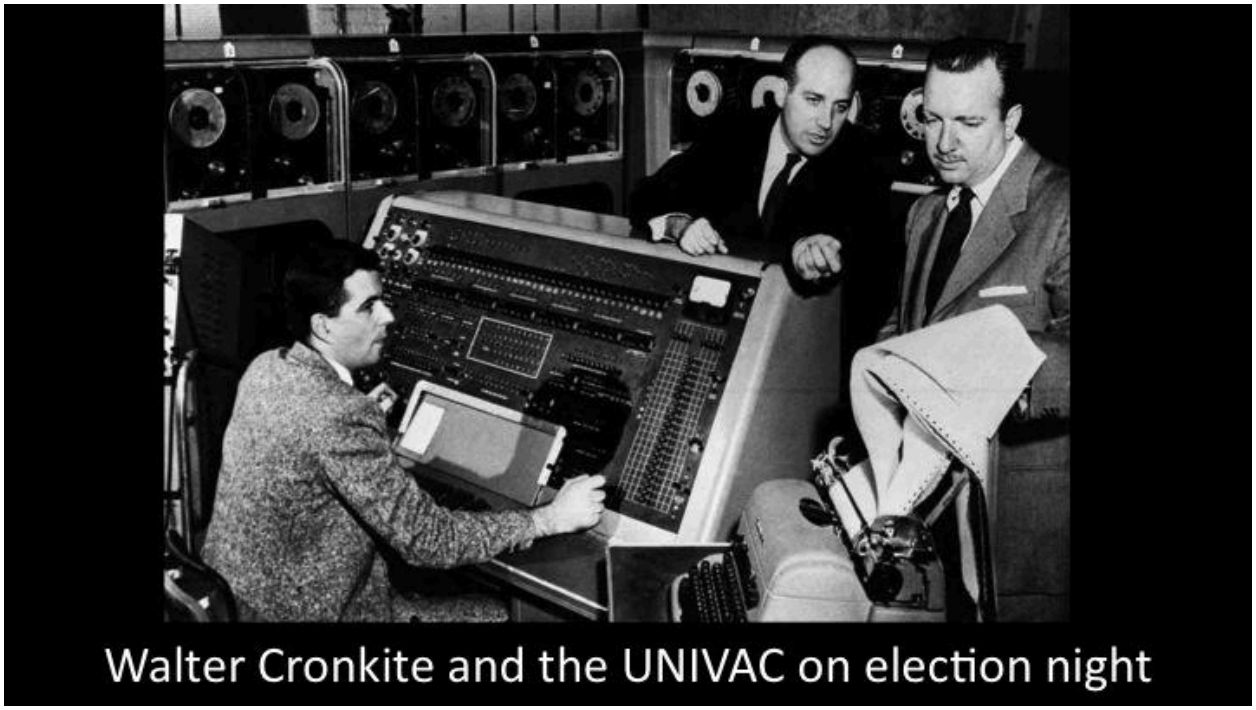
The measurement frenzy that electricity started has not ended, for it continues with the computer - which is just electricity in a constrained form of 1s and 0s.
It's no coincidence that in 1951, the world's "first commercially available general-purpose electronic computer,"

The Ferranti Mark 1, came from one of **the largest electricity companies in the UK**, Ferranti Limited which made electricity meters in the late 19th century.

The Mark 1, developed at Manchester University, was a big deal. This *"high speed electric computer"* could add columns of numbers together and store them in a memory!
It is interesting to note that ASCII text originated from the development of the Mark 1 and Alan Turing wrote Mark 1's first operation manual.

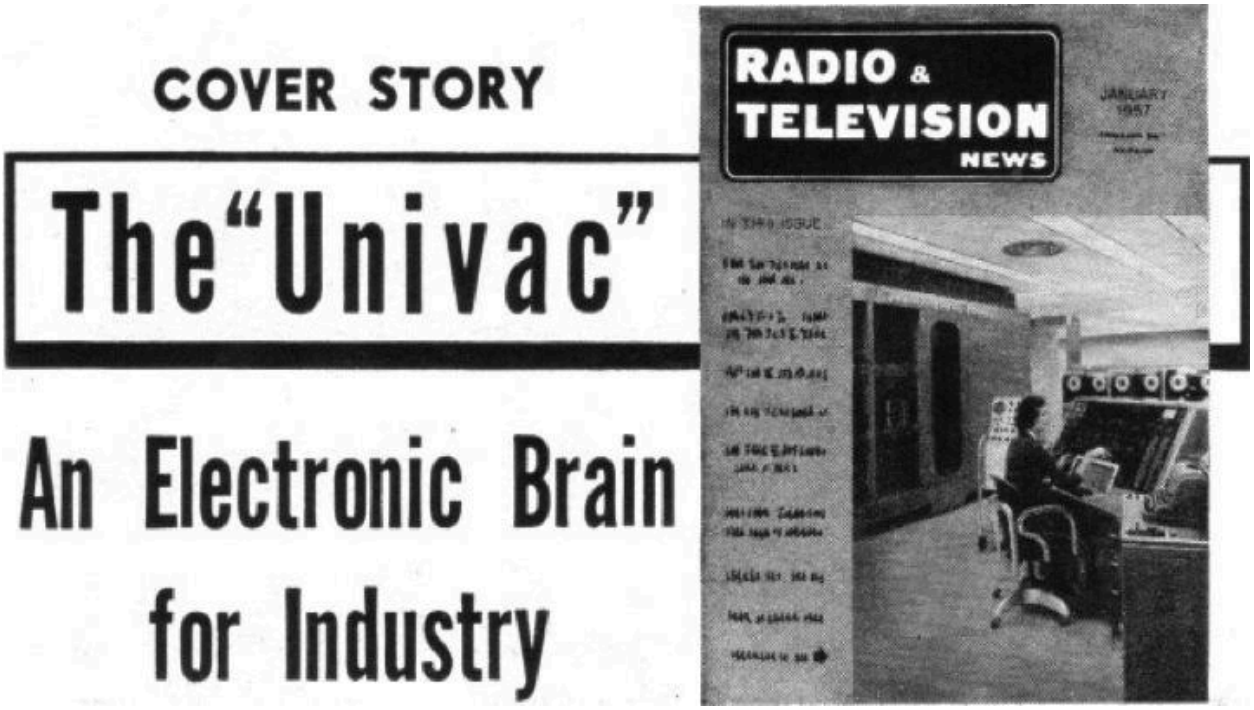
The invention of computers like the Mark 1 and others that came soon **after introduced a new language dealing** with information, speed, and most importantly, predictability.
Even though computers were incredibly expensive and only a few institutions in the world could afford them, **broadcast television played a pivotal role in introducing** the computer into the public arena as a prediction machine.

It all started the night of the 1952 US presidential election race between Adlai Stevenson and Dwight Eisenhower, also known as Ike. For the first time, a television studio used a computer to do a live demo of its predictive powers.



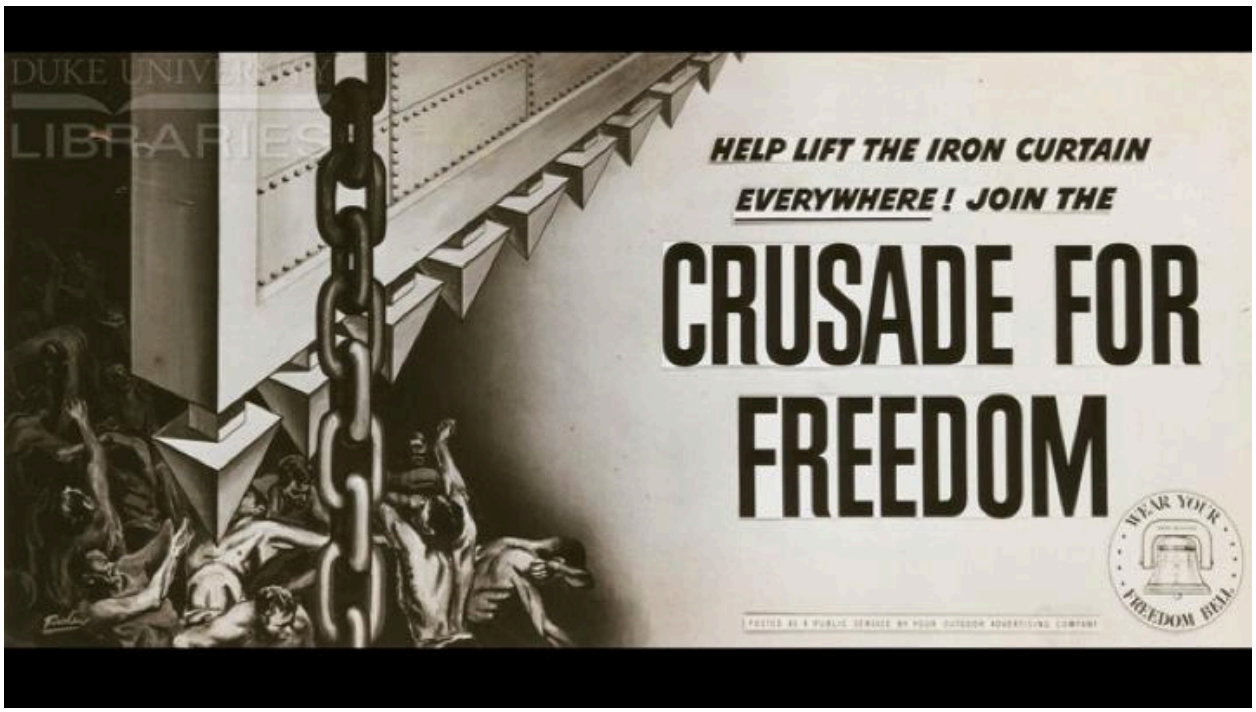
On the election night show anchored by Walter Cronkite, CBS asked the 16,000 pound Remington Rand UNIVAC for calculations. As the story goes, UNIVAC predicted a landslide victory for Eisenhower.

But initially people thought UNIVAC's prediction seemed absurd because public poles predicted a tight race, not a landslide.



However, UNIVAC was right. Ike won the election. With only a 1% sample of the voting population, UNIVAC's prediction was correct within 1%. From that point on, the "electronic brain," as it was commonly referred to in the media, garnered superhero status. UNIVAC ushered in computers into public discourse.

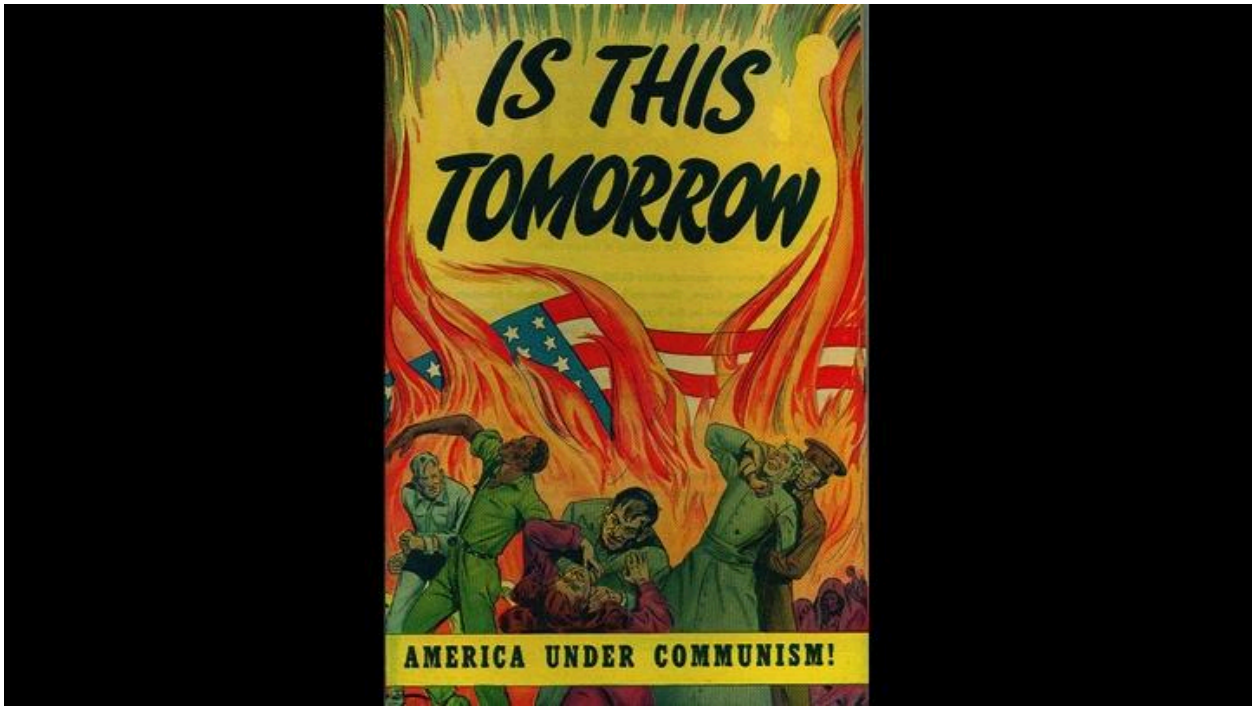
In post-war America, a computer that could predict the future was very **appealing to a country coming out of a world war** that was **in the midst of the McCarthyist Red Scare** and **worried that Communism** might destroy democracy. The country was fighting the Korean War and several countries were already experimenting with nuclear bombs.



The Crusade for Freedom - a US government propaganda campaign against Communism was

already underway.

The US government urged people to send freedom-grams, organize rallies, and donate "truth dollars" to fund the crusade, which was really a CIA-backed fight against Communism around the world.



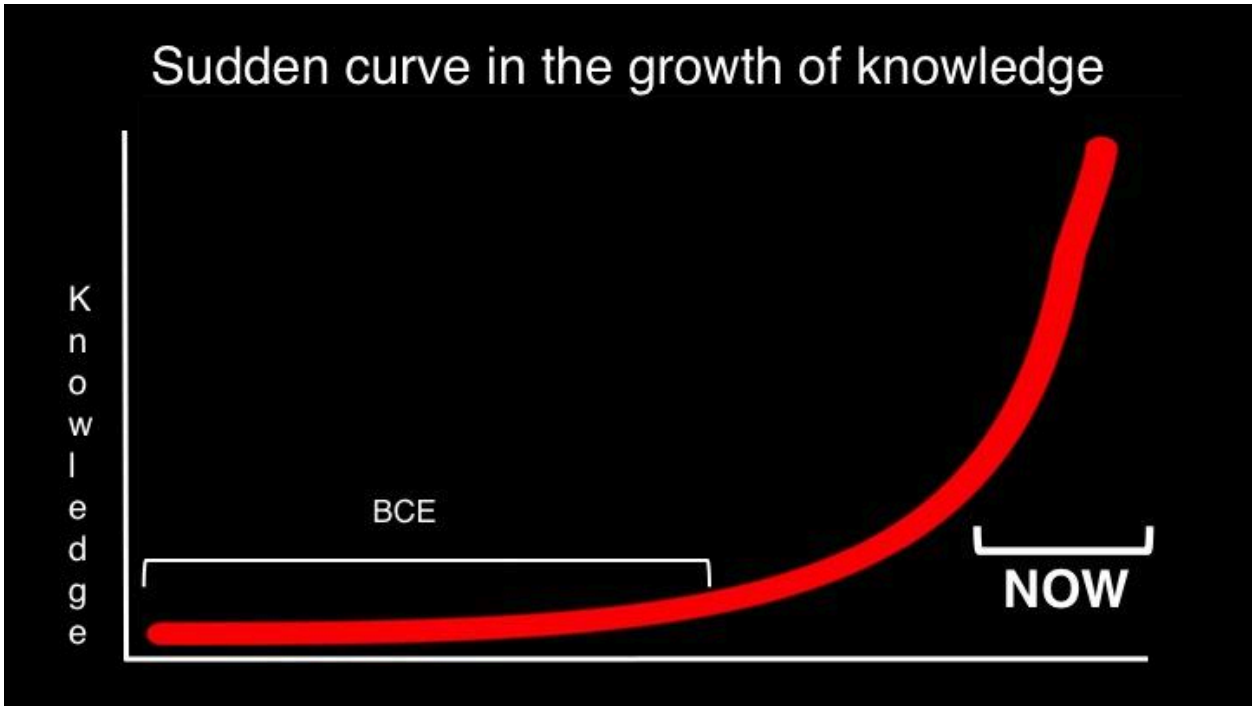
For many people, 1952 was a very scary place. UNVIAC's very existence was born out of that fear.

UNIVAC's original purpose was to predict nuclear fallout, but then engineers quickly saw that it could be useful to see other futures as well such as the weather: [PLAY VIDEO UNIVAC 1]
So from weather to presidential elections, the electronic brain seemed to offer something that no one or nothing could compete with: correct predictions of the future. And UNIVAC told institutions from businesses to government that this was good for them: [PLAY VIDEO UNIVAC 2] These commercials help popularize the computer as a hero.

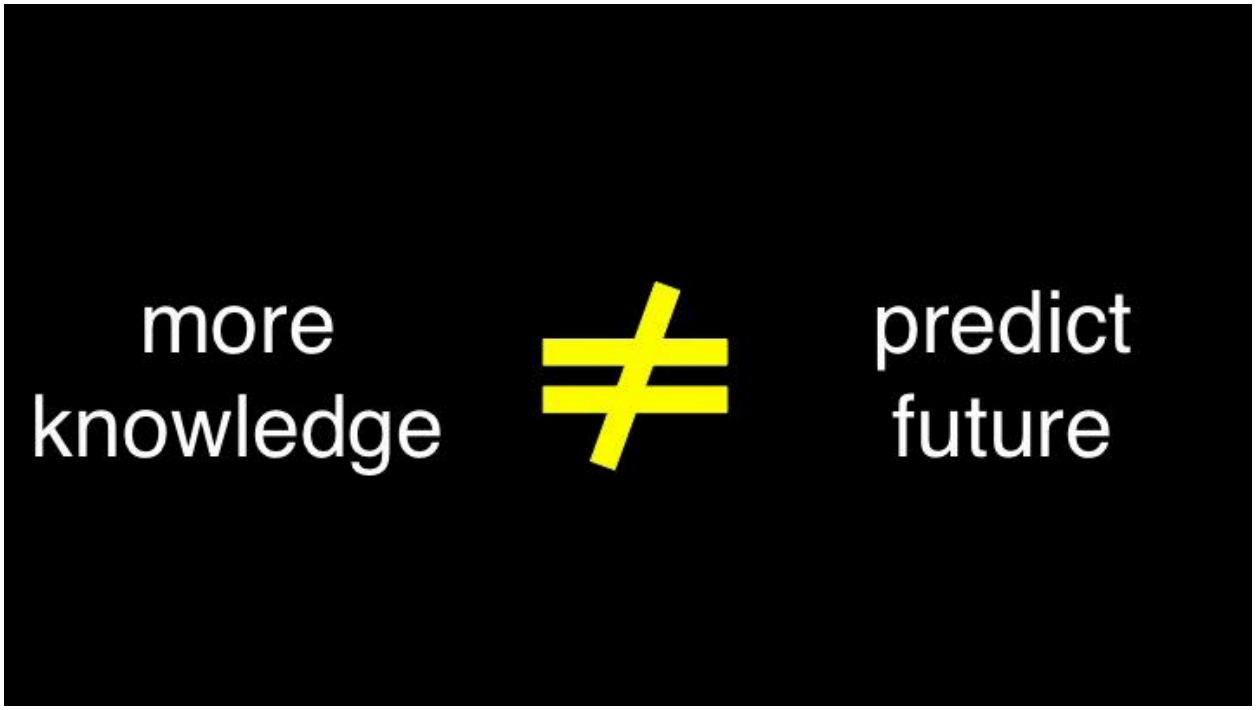
And then pop cultural solidified its hero status. The UNIVAC had a starring role in a 1956 Bugs Bunny cartoon where Wile E. Coyote builds a UNIVAC electronic brain to come up with answer on how to capture Bugs Bunny. [PLAY VIDEO OF BUGS BUNNY]

UNIVAC even showed up on the front cover of a 1961 issue of Superman where Lois Lane is presented with the perfect husband - chosen by the matchmaker, UNIVAC.
The fact that UNIVAC had made its way into pop culture reflects a profound public awareness of its abilities.

Before any personal computers were even on the market, popular ideas and images of the computer as a prediction and measurement machine were already well-formed.
In the same way that electricity made new forms of measurement possible and produced new things to measure, the computer did the same thing. All of sudden people started to think we can measure everything with computer networks.

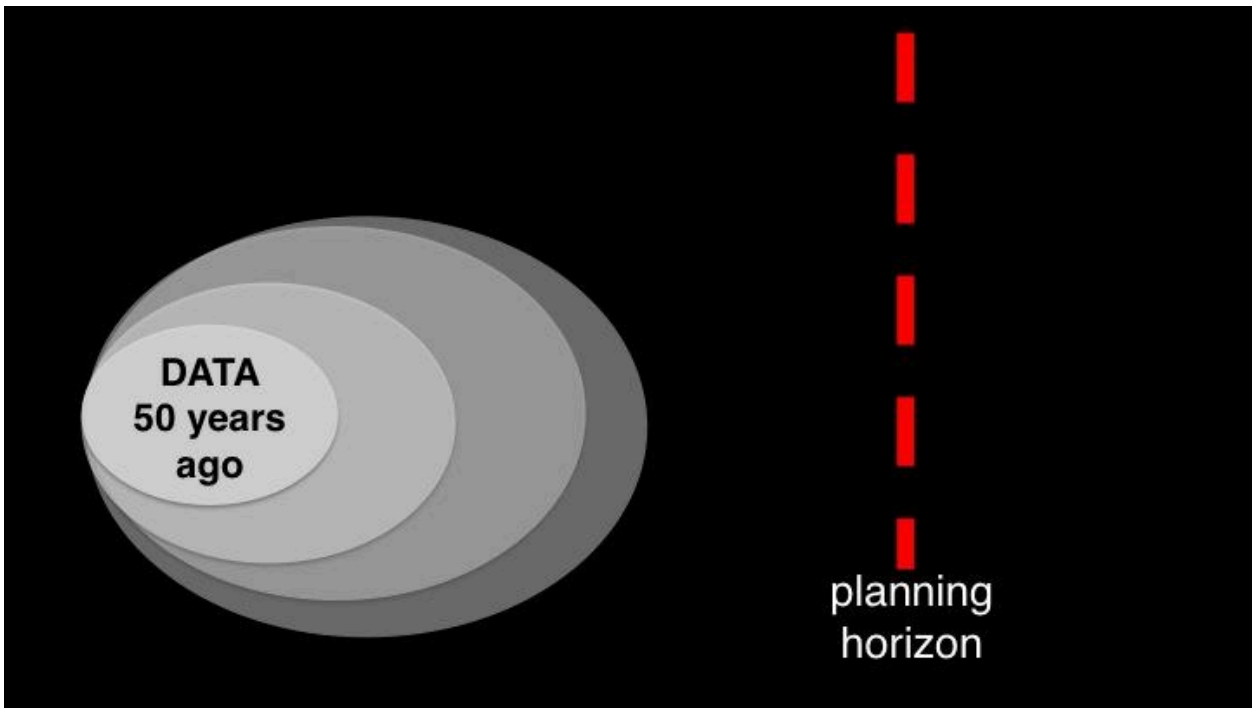


What we are talking about is a sudden curve in measurability. We went from not being able to measure anything and within a couple hundred of years we could measure sound, light, energy, weather, and information. This is the beginning of the Age of Data. Data, the rogue offspring of Electricity, is Kelvin's dream, but it is also Kelvin's curse.

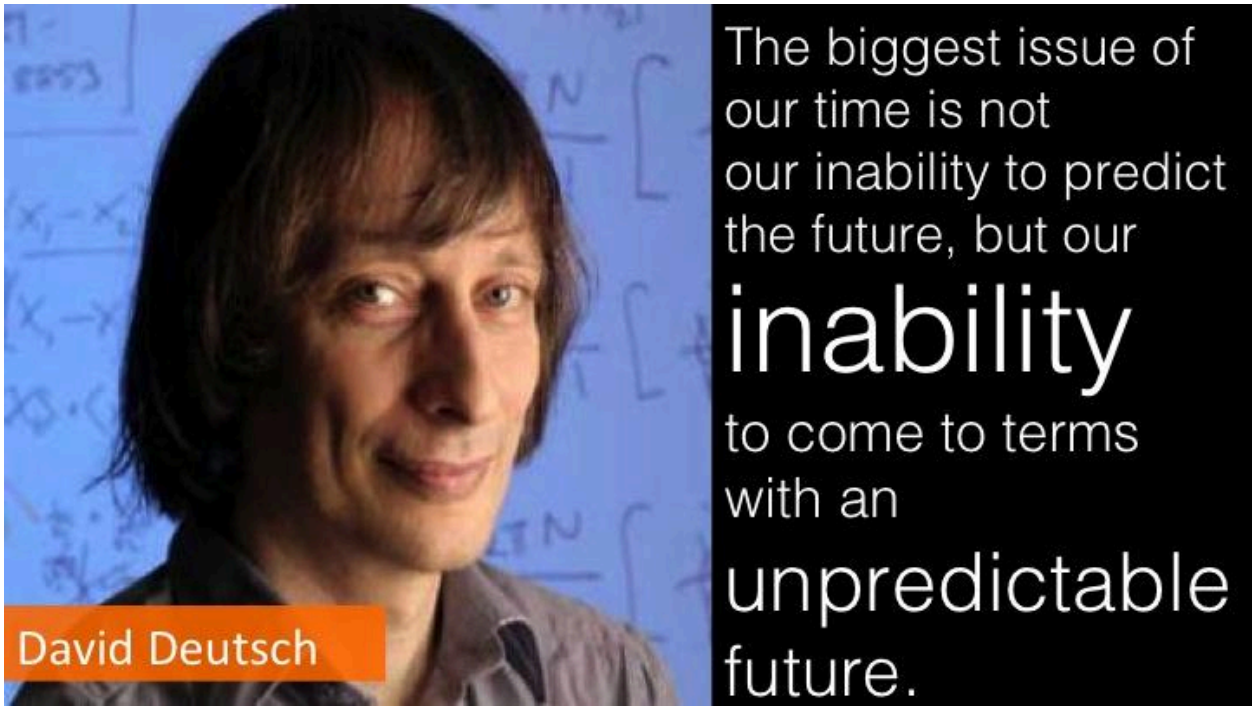


We can agree that we know more about our world than before, but here's the thing: more knowledge does not enable us to predict the future any better than the Ancient Greeks!

How could this be?
We are in this situation because knowledge is relative.



The more knowledge we gather, the more we force the planning horizon closer, making it even more difficult to predict the future.

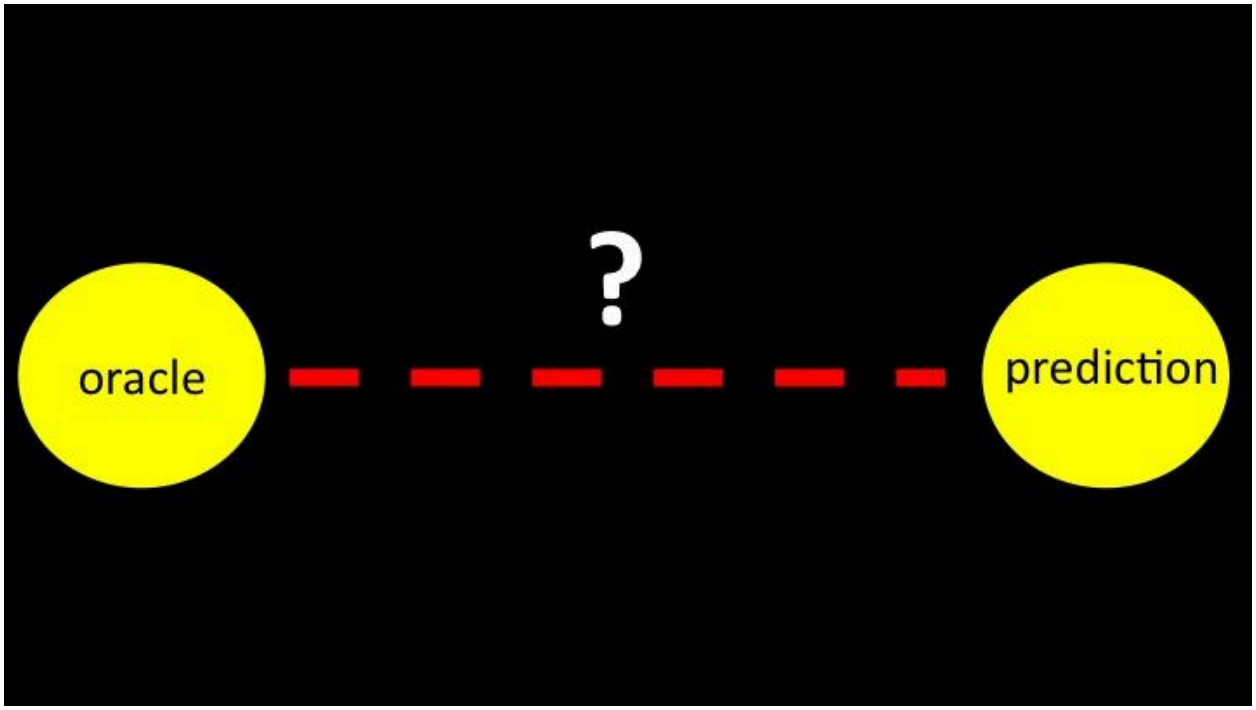


Deutch argues that **the biggest issue of our** time is not **our inability** to **predict the future.**

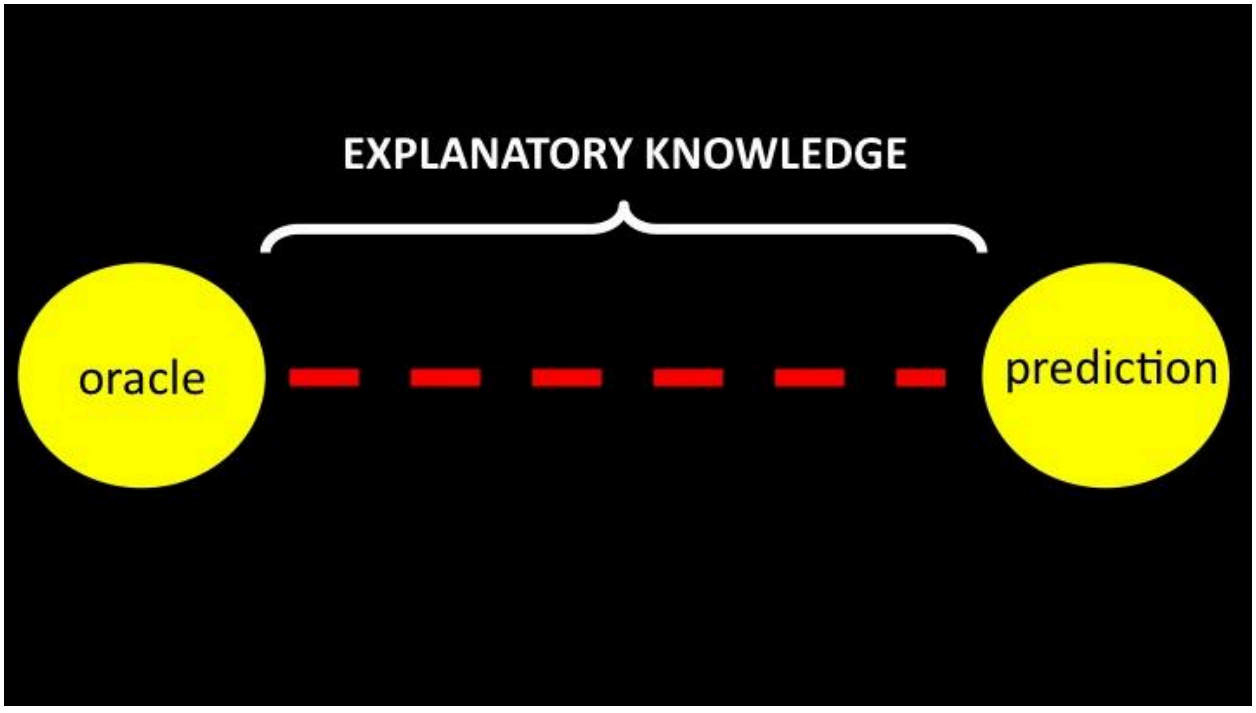
According to quantum computing physicist David Deutch, this approaching planning horizon is the precise conundrum we are living in. Rather, it is our inability to come to terms with an **unpredictable future.** The problem is not whether we know how much unearthed oil is left or how long a currency will be stable. The problem is that we believe that we know because the computers have given us the answers.

Algorithms forecast predictions with a confidence level that enables us to make decisions and enact policies that shape entire markets and lives. We not only believe that computers can predict the future, even more so we believe that their predictions suffice as explanatory knowledge, and the most authoritative kind. Deutsch, coming from the hard sciences, thinks that our belief in data derived from computers to tell us about our future devalues explanatory knowledge and theories - the stuff that scientists produce! The computer is only useful to the extent that we know what questions to ask it.

And as Deustch says, "Prediction —even perfect, universal prediction— is simply no substitute for explanation."

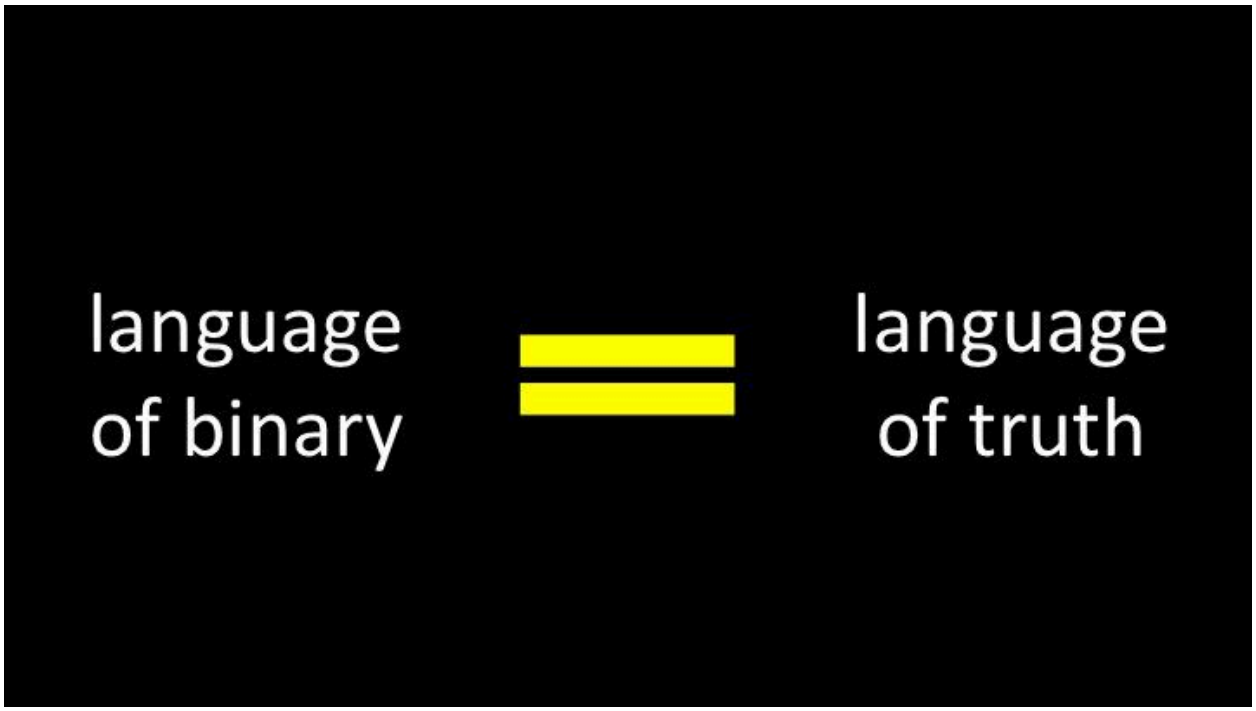


Let's say we had a perfect oracle that told us in 50 years, gas powered cars would no longer be on the market. We would still need to know the answers to a number of questions:
How we will travel without cars? Will cities still be around? What happened to all that shale gas? Are we using biofuels - or are we using an entirely new technology? Will our civilization still be around? Who is supposed to do what? and what will we do when it happens? and what does it all mean? So a prediction of a carless future is just data.

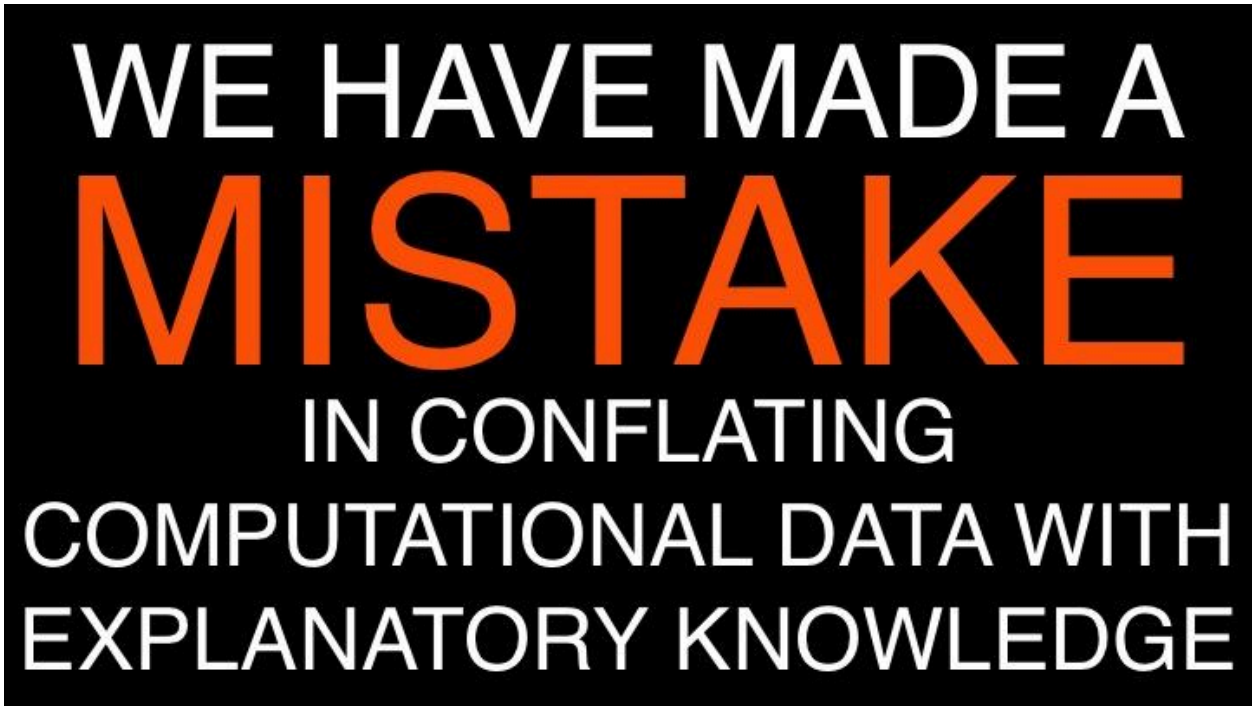


We would still need explanations to figure out what to do.

PART 3: How computers became the “truth” and acting upon data without context became acceptable among corporations and organizations



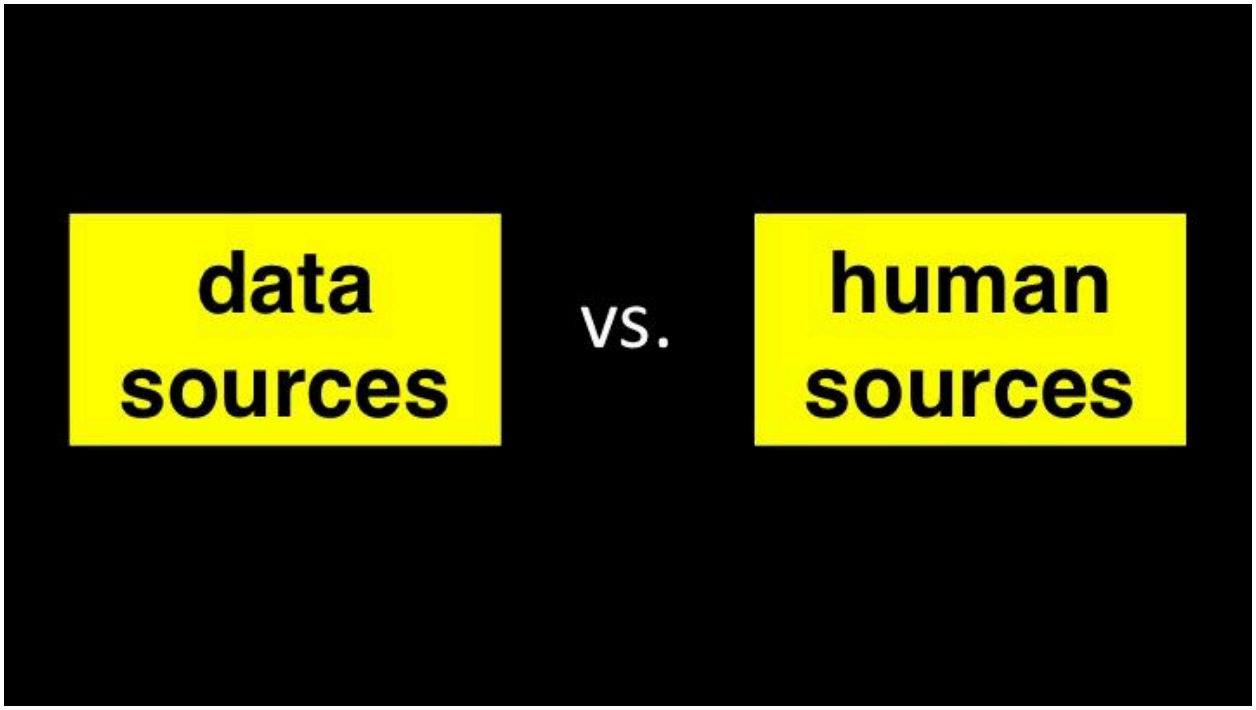
An oracle means "to speak" - and right now, those who speak the language of computers - binary - speak the language of Truth, which in one way or another is the language used to predict the future. So the myth that we are living in is one that tells us that computers are oracles.



And along the way, from the Ferrati Mark 1 to the UNIVAC and to deep gathering data systems we have made a mistake in conflating computational data with explanatory knowledge. The metaphor of the computer as a machine that can measure and help us understand the world is wrong. It's good at computing things, but it's pretty bad at explaining things. But many organizations are dealing with closer planning horizons by investing in more data, not necessarily more knowledge.

Companies like Verint, NARUS, NICE, Palantir, and more offer gathering and surveillance software to government agencies promising them that more Big Data leads to more informed actions.

But it was this kind of Big Data software that led to members of the "joint terrorism task force" showing up at Michelle Catalano's home after she and her husband separately had googled the terms "pressure cooker," "bombs," and "backpack" around the same time of the Boston bombing. The NSA didn't have the context to understand the search terms. Michele wanted to buy a pressure cooker to make food, not bombs. Her husband was looking for a backpack for their son, not for a terrorist plot. The problem wasn't just in misinterpreting the words they googled, like backpack and pressure cooker.



The problem was in **treating the terms as data sources,** rather than considering the human context of the search inquiries. From the perspective of the government's Big Data machine, searches are **no longer human questions**, they are merely lists of keywords.

We can see this story as an example of a government misinterpreting human data, but this story also reflects a larger trend within institutions, private and public, **that are acting upon data without context**, leading to results that impact real human life.
The mistake of treating computational data as knowledge has led to several errors within institutions in the public and private sector.

First, organizations are acting on numbers, instead of acting on understanding. Organizations that rely on numbers alone can lose their vision.

After 131 years of being the dominant player in the photography market, Kodak filed for Chapter 11 bankruptcy because they failed to make the transition from analog to digital photography.

Their data wasn't necessarily incorrect. It told them that digital was going to be a thing.

They invested billions into developing new digital services and products. They actually had some of the first digital cameras to market. But, in their version of the future of photography, everything would be more or less the same except the camera would be digital. People would still need photo paper and they would share by printing things out. But they didn't think that people might not always want to print out a photograph and that if the internet enables you to share photos over long distances, you might not want to print out a photograph at all!

These are things that seem obvious to us now, but back these are things you could only glimpse if you took the time to understand everything else that was going on in people's lives as opposed to just seeing the camera as an isolated piece of equipment within existing production chains. **And that is the work of ethnography** – to give the data context and to correct a vision that over-relies on numbers.

Some organizations believe that numbers are a far more superior form of knowledge than stories. This is short sighted. All numbers still need interpretation and analysis. And if they want to be understood and actionable, they need stories.

Even scientists need stories! [Primatologist Frans de Waal a](#)rgues that a sense of fairness - the groundwork for morality--can be seen in our ancestors - monkeys.

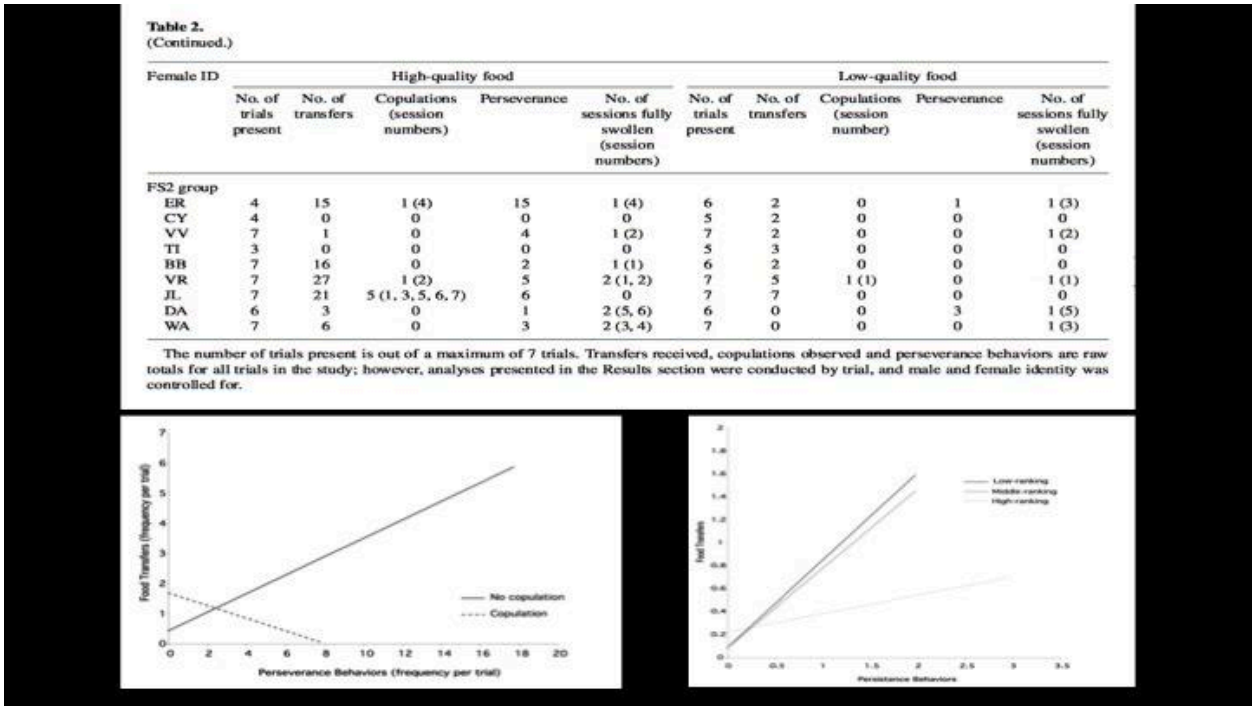


Table 2.
(Continued.)

Female ID	High-quality food					Low-quality food				
	No. of trials present	No. of transfers	Copulations (session numbers)	Perseverance	No. of sessions fully swollen (session numbers)	No. of trials present	No. of transfers	Copulations (session number)	Perseverance	No. of sessions fully swollen (session numbers)
FS2 group										
ER	4	15	1 (4)	15	1 (4)	6	2	0	1	1 (3)
CY	4	0	0	0	0	5	2	0	0	0
VV	7	1	0	4	1 (2)	7	2	0	0	1 (2)
TI	3	0	0	0	0	5	3	0	0	0
BB	7	16	0	2	1 (1)	6	2	0	0	0
VR	7	27	1 (2)	5	2 (1, 2)	7	5	1 (1)	0	1 (1)
JL	7	21	5 (1, 3, 5, 6, 7)	6	0	7	7	0	0	0
DA	6	3	0	1	2 (5, 6)	6	0	0	3	1 (5)
WA	7	6	0	3	2 (3, 4)	7	0	0	0	1 (3)

The number of trials present is out of a maximum of 7 trials. Transfers received, copulations observed and perseverance behaviors are raw totals for all trials in the study; however, analyses presented in the Results section were conducted by trial, and male and female identity was controlled for.

He says that he shows these graphs to scientists all the time, but they don't really understand what these graphs means until they see the video –
Watch what happens when the monkey on the left gets a grape as a reward instead of a cucumber: [PLAY VIDEO OF MONKEYS]

De Waal’s fellow primatologists aren’t stupid. They looked at the graphs before, and they could see the patterns in the data but they didn’t necessarily understand what the patterns meant until they saw this video.This story of de Waal and the monkeys shows that if you don’t experience something directly, you may not find the real meaning in the data.

Although, there are many organizations that believe that they can understand the world of their users and markets without living in it. This is hasn’t been true in any place or time, so why would this be truer now? It's amazing how many decisions are made in organizations based on data without any context or understanding of what it actually means for stakeholders.

A similar thing is happening with financial data, which is increasingly being relied upon to provide direction for consumer research. As a result, even qualitative research has started to look a lot more quantitative, relying on focus groups and surveys, two methods that do not produce the deep data that can lead to great stories with valuable insights. This means that qualitative research in some organizations is compounding the kind of thinking that is creating the problem in the first place.

The perceived inferior status of stories is reinforced through bad qualitative research. Now there are many firms and individuals out there that are doing great work. Many of them are here in this room. But they are in the trenches. Because they have to do the hard work of convincing institutions to invest in their services over qualitative firms that can promise quick results and quick data at a very low cost.

Just like any other industry, there's a wide range of quality in qualitative research.
Well, some clients are starting to question the inconsistency of the research they are getting.

One prominent case that a lot of us are following is Unilever, a consumer goods company that makes everything from toothpaste to perfume.
They have openly declared that they are not getting consistent qualitative research.

So they have created "The Qualitative Researchers Accreditation Programme" to accredit researchers as either a "research lead" or "moderator."

Unilever has identified 80 characteristics of what they are looking for in a quality candidate, including how the potential candidate writes up a mock brief and runs a focus group.
Unilever has stated that they will only work with accredited research leads or moderators.
But Unilever's approach is certainly flawed in that they are using measurement to solve a problem that's been created through measurement.

They can't even see that their taxonomy of "moderator" versus "research lead" already reflects just how deeply they've been affected by The Curse of Kelvin. Unilever is not alone.
Their frustrations with inconsistent and surface insight work is shared throughout the industry.

But creating an accreditation system for researchers would be similar to Metropolitan Art Museum or the Tate creating a likert scale to select their artists or Apple saying that they're going to only hire accredited designers that pass their design test.
Unilever's positivistic notion of "qualitative work" has veered so far away from people that they have forgotten that gathering stories - the work of understanding humans is a creative process, one that cannot be easily measured by watching how a potential candidate conducts a focus group or writes a mock brief.

The work that ethnographers do, understanding meaning, is creative work and creative work is difficult to standardize and scale.

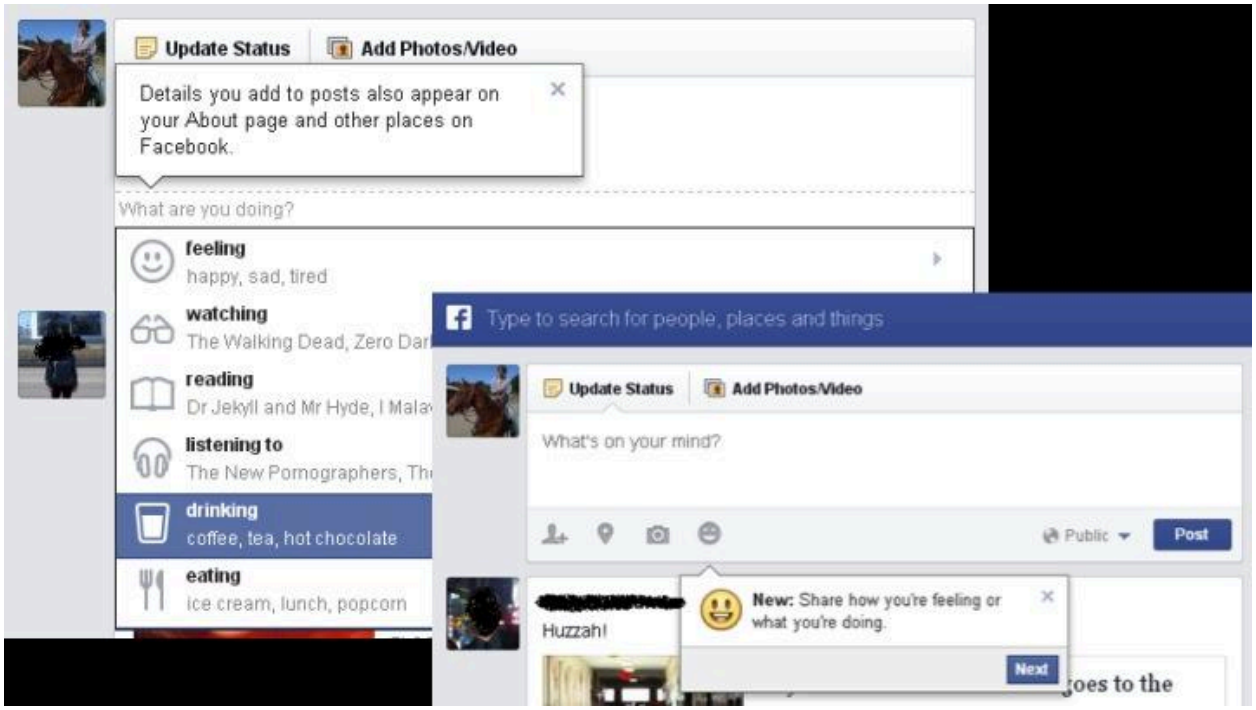
Across the board, we have mistaken data for knowledge. And related to this, what we've done is mistaken the ways that computers work with the ways the world works.

PART 4: What we see when we treat see users as humans, not data points and

Conflating computers with the way the world actually works - well this is a terrible mistake.

But in a way...the world really *does* work the way computers function, but not in the 'computing' part but rather the 'communicating' part.: the network - that network has of course changed how we derive knowledge, how we communicate, and who we are.

They've added something new.
Social media and digital devices are reshaping the way we interact, but not in the way the data predicts.



Knowing how many facebook smileys people use in reference to your brand page tells you nothing about what your brand means to them –

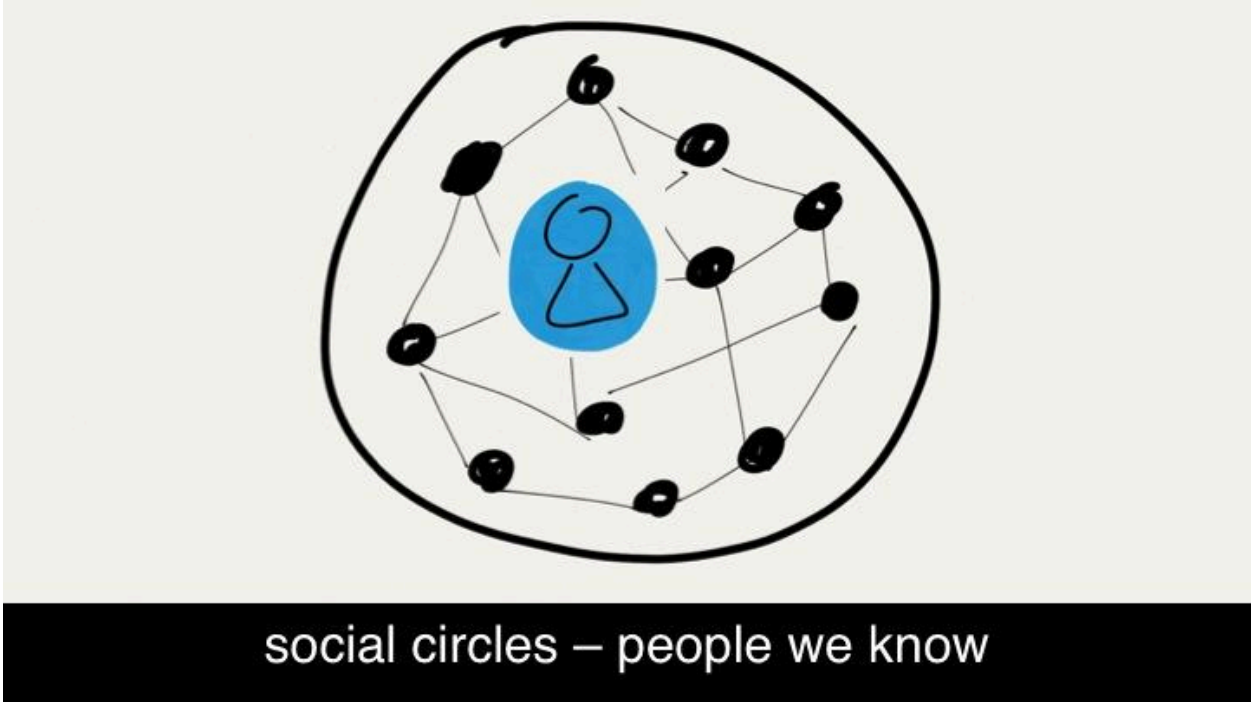
Knowing people's fitbit Flex, Nike fuel band or jawbone up stats doesn't tell you how to build the next health app –

Knowing that X number of stakeholders listen to music on Spotify tells you nothing about the material context of that interaction - where they are sitting, who they are sitting with, how they are holding the device, what are they listening with, what else they are doing at the same time, and what it all means for them –

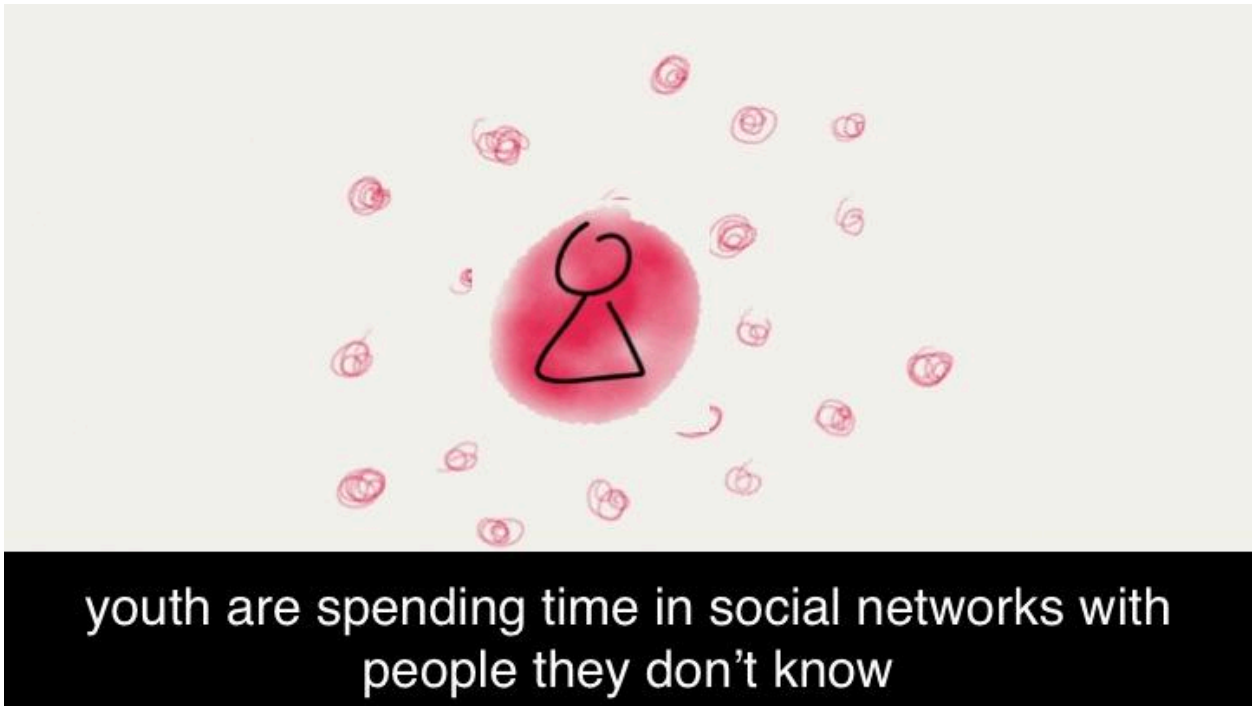
Even if you're not working in the tech industry, let's say you're in health, design, policy, or consumer goods, it is increasingly becoming the case that knowing how your stakeholders use social media platforms is just as important, if not more than understanding which country or neighborhood your users live in.

A large part of my work is advising companies that do not come from the tech industry to understand opportunities in the digital space. I want to **share with you one way I frame the importance** of deep contextual knowledge for organizations that are trying to build relationships with younger and/or more tech savvy stakeholders.

One of the things I'm seeing is the fundamental shift in how people engage in identity and community making with social media. Prior to social media, most youth experienced their coming of age period with personal social circles.



There was strong boundary between strangers and known people. It was clear who was inside or outside of your circle. One of the things I'm seeing is the fundamental shift in how people engage in identity and community making with social media. Prior to social media, most youth experienced their coming of age period with personal social circles. There was strong boundary between strangers and known people. It was clear who was inside or outside of your circle.



What I'm consistently seeing in my research around the world is that youth who have come of age on the internet are using anonymous identities to express their emotions with massive social networks of unknown people - essentially strangers. They have whole entire secret lives that they keep separate from people they know.

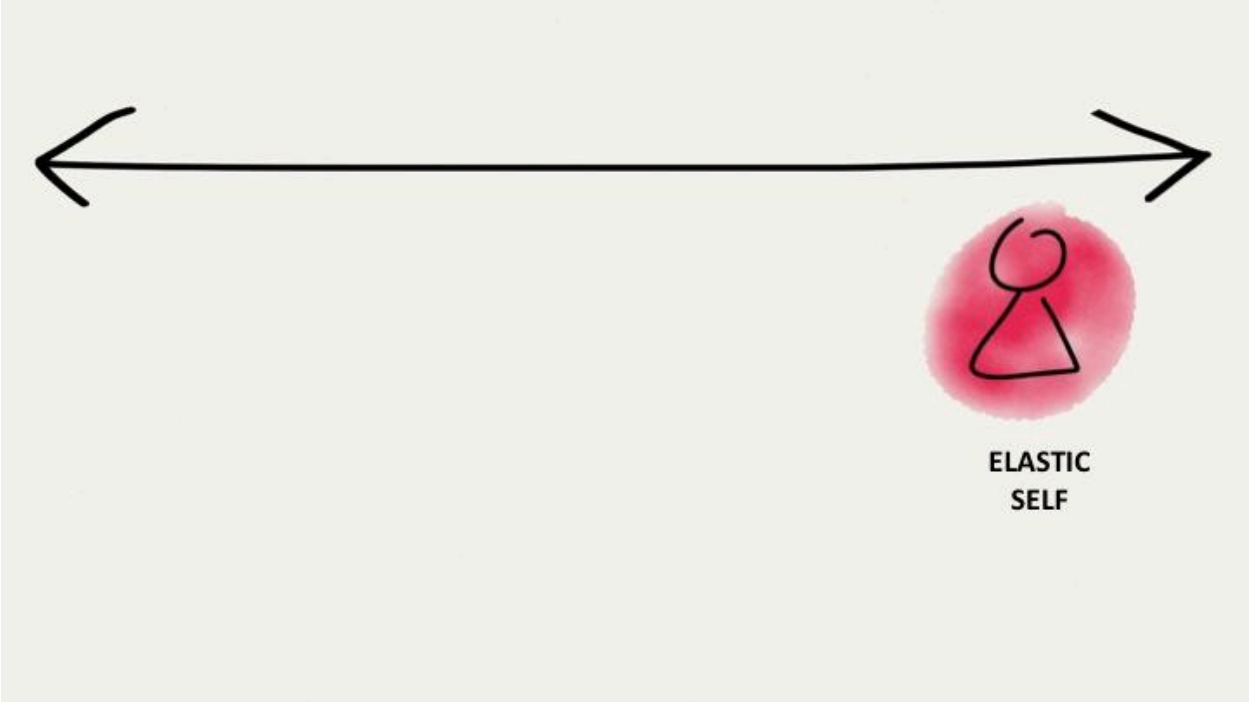
When I speak to youth like Amanda, she tells me that she spends most of her time on tumblr because that's where she doesn't feel weird for being a nerd who likes manga.

Youth like Liu Liu tell me that he prefers to spend his time around people he doesn't know on Feizan, a gay Chinese social network, because this is where he feels accepted in a society where being gay is stigmatized.

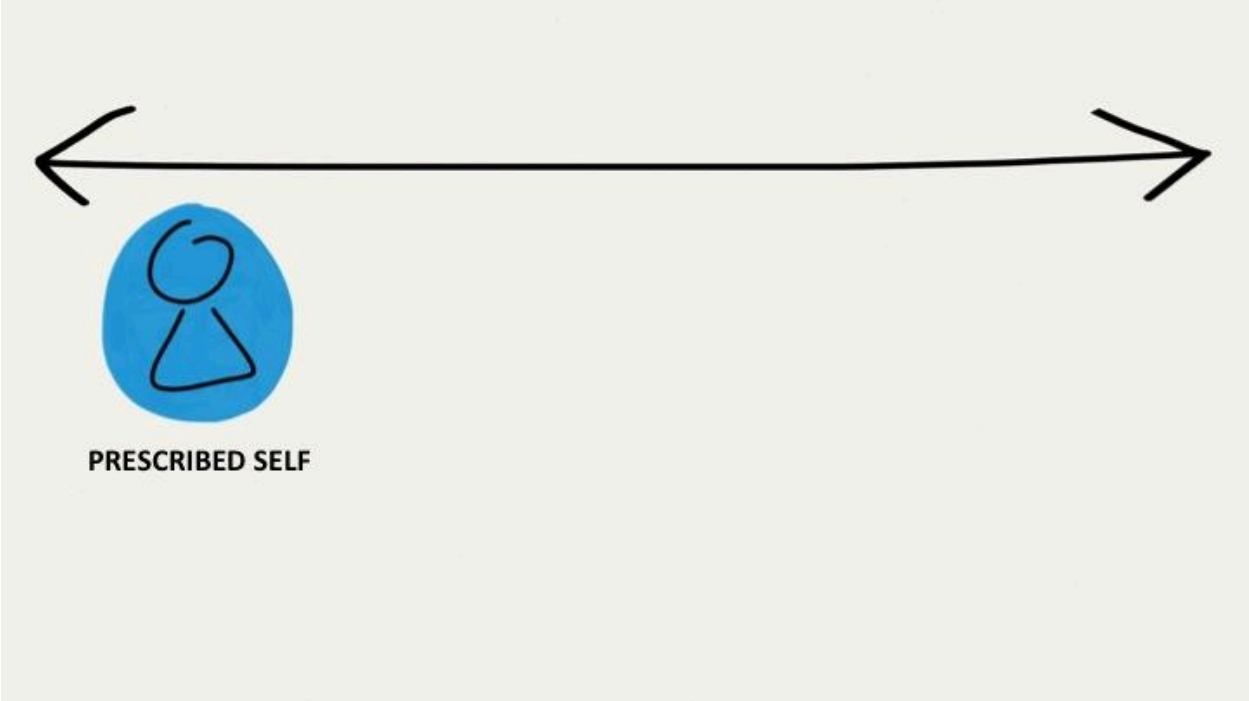
Teens like Ernesto tell me that World of Warcraft is a great game, but he also really enjoys the friendships that have emerged from his guild.

I've met hundred of youth like Amanda, Liu Liu, and Ernesto who spend their time online with

strangers under anonymous conditions.

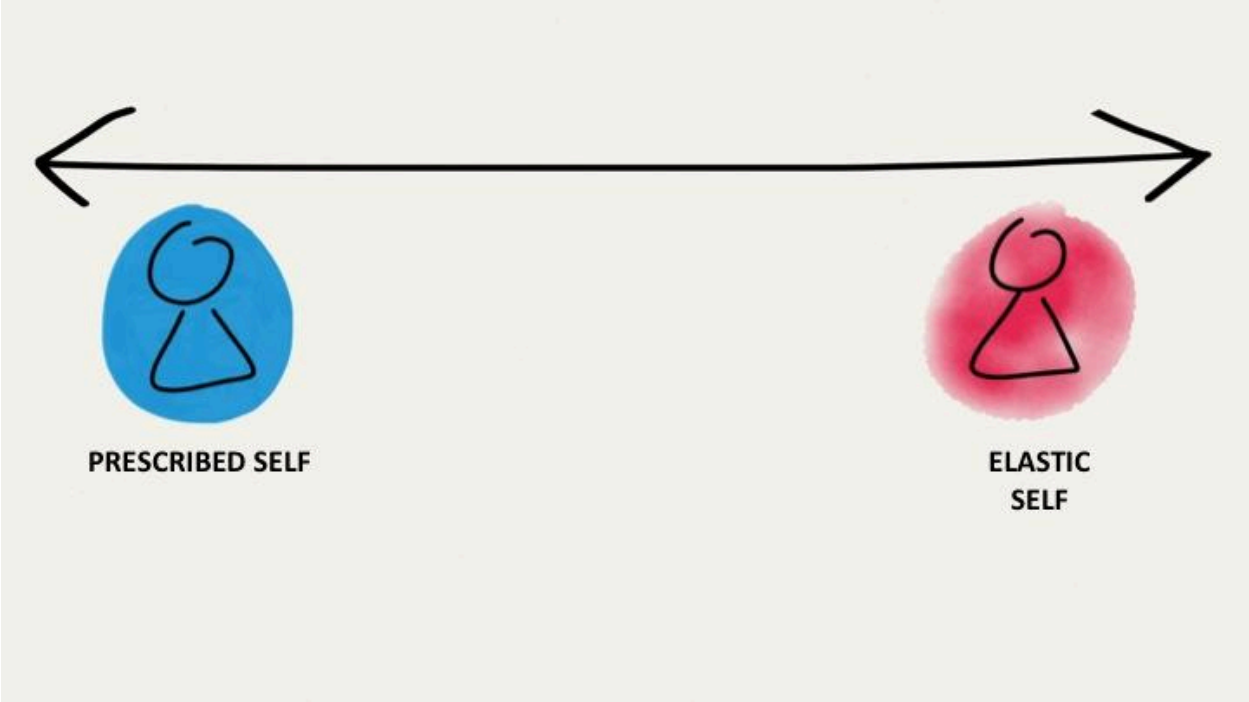


This everyday form of interaction with strangers is what I call the Elastic Self: the feeling that one's identity is malleable and the action of trying on different identities that are beyond the realm of a prescribed self.



A prescribed self is composed of identities that are dictated by one's existing social structural

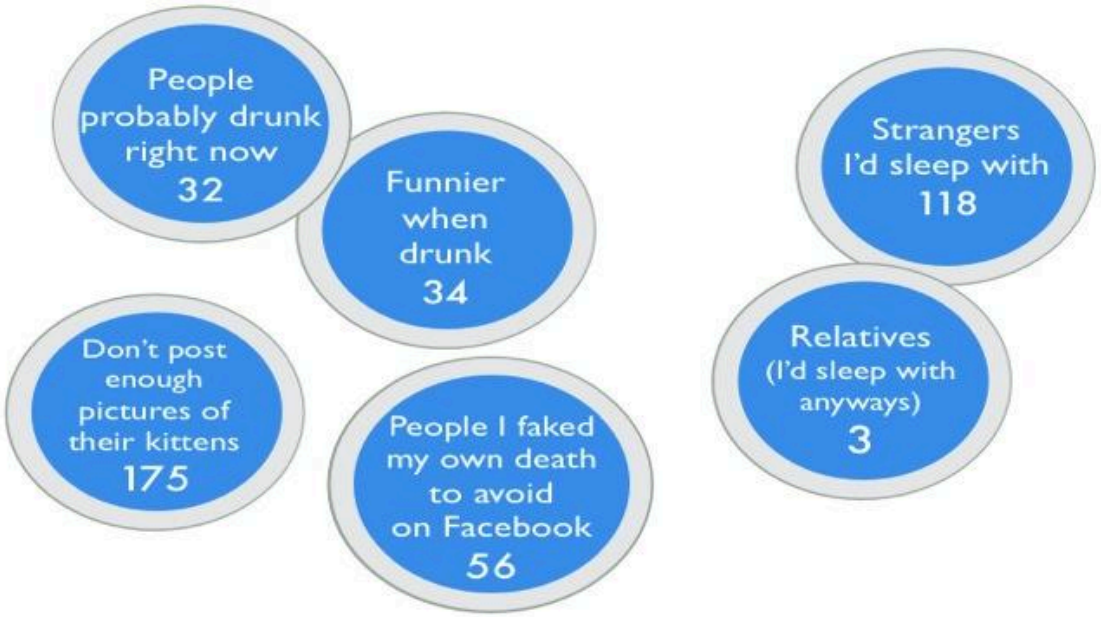
categories, such as ethnicity, gender, nationality, or family. It's all the stuff you don't have a choice over. It's the identities you are born into.



The Elastic Self framework helps us understand all that fascinating and yet foreign behavior on the internet.
Like why Amanda, Liu Liu, and Ernesto have so many anonymous accounts - accounts that you may never find out about because to tell you or anyone they know would reveal an aspect of their selves that they wish to keep secret.

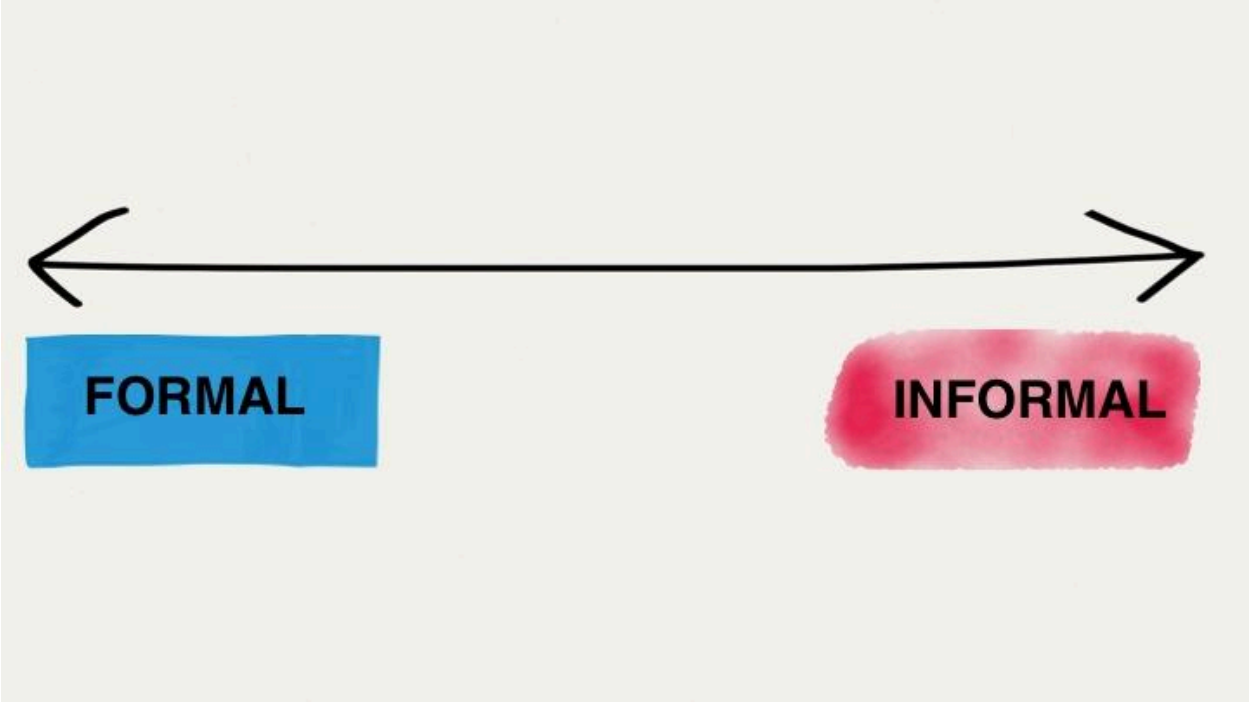
It helps to explain why teens have adopted short loops of commonly experienced pop culture as a form of communication.
So when they need to express feeling overwhelmed, sad, angry, excited, very excited, or just feel like they want to give up – it is easier for them to post animated GIFs.

It explains why teens like Amanda love the anonymity and the flexibility of identity inherent in the social blogging service like tumblr.
By being able to express herself without the pressures in her proximate communities, she feels closer to people on tumblr than to people she knows.

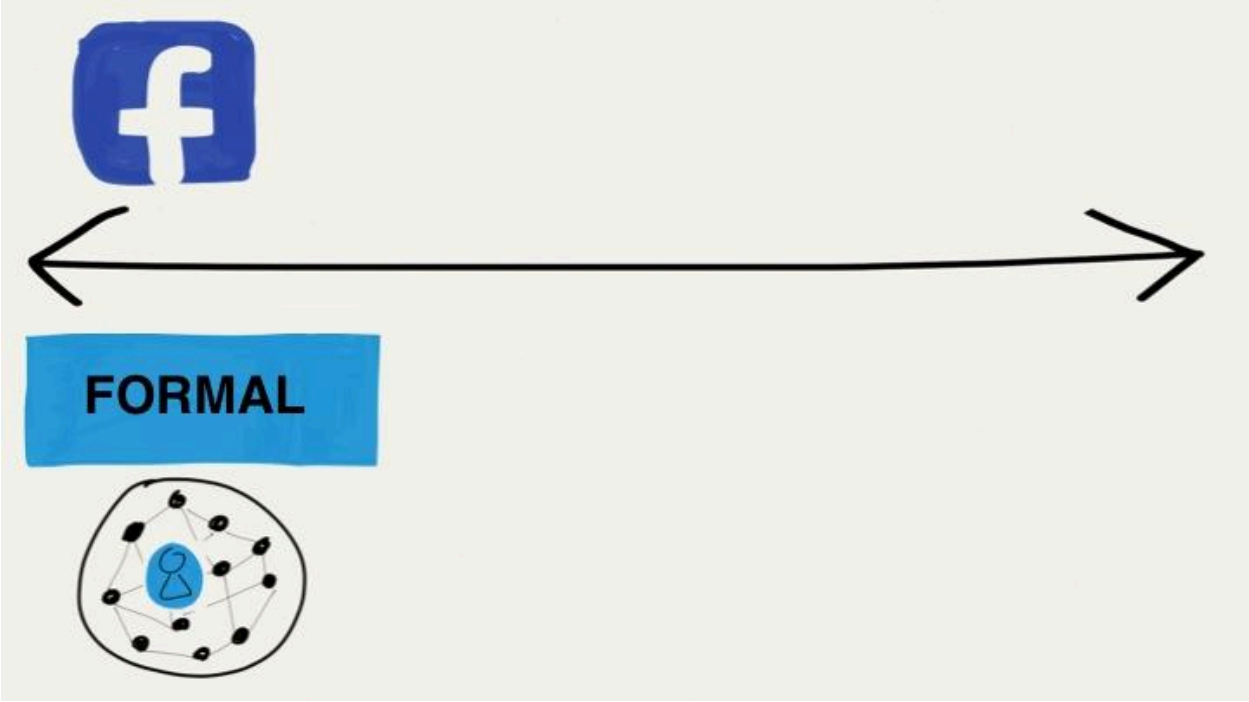


It explains why people poke fun of the concept of circles on the google+ platform.
Because it doesn't work for how users actually interact with people they know.

Understanding these different but related behaviors means that we can no longer lump all social media platforms together as if they are one homogenous set of apps.

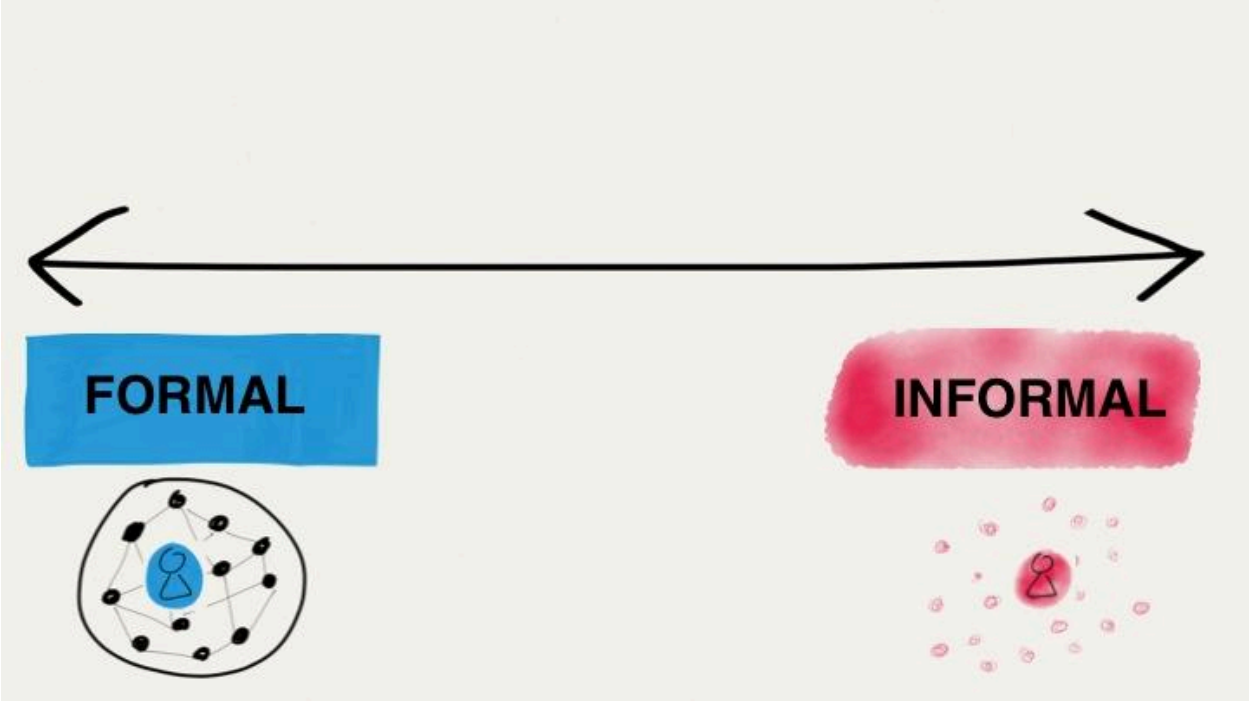


It's much more accurate to talk about social media as platforms that are dominant in either formal or informal modes of interaction.

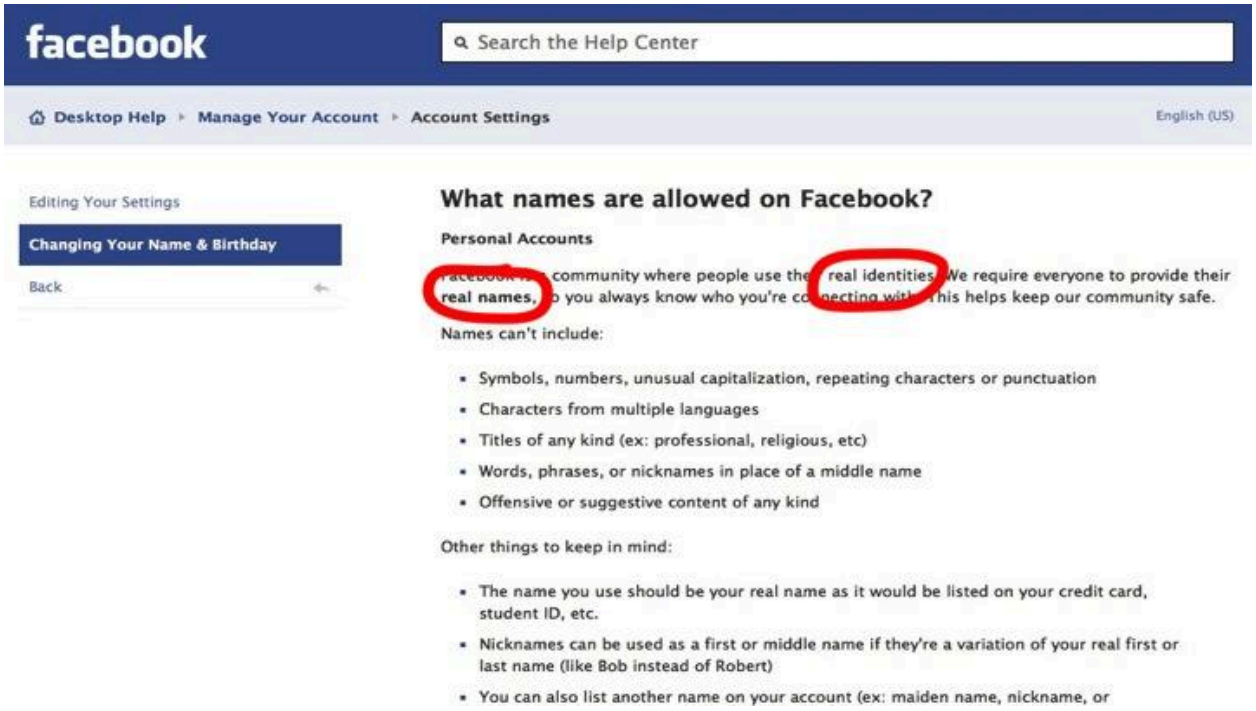


Formal modes of interaction are when we engage with people we already know like on facebook,

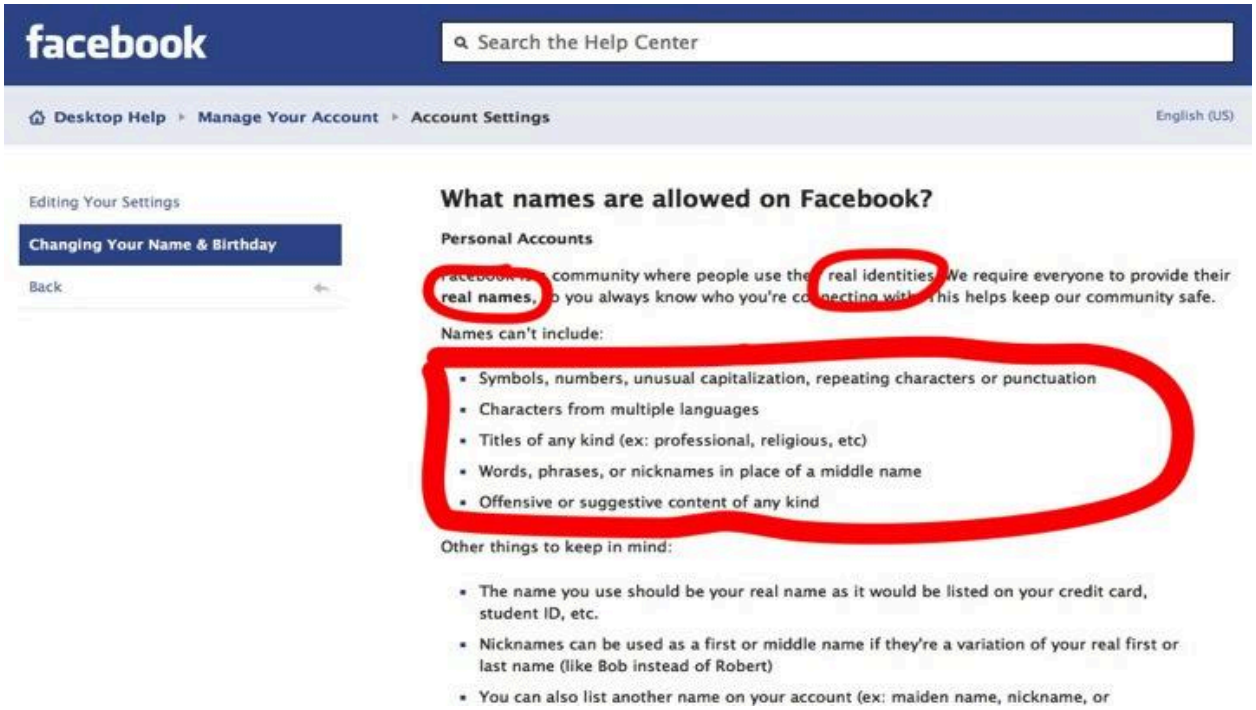
and informal modes of interaction are when we engage with people we don't personally know, like on twitter.



I'm not talking abstract theory. I'm talking about real features that can be designed into a social platform to encourage either an informal or formal mode of interaction.
I usually discuss a set of design principles that can tilt a platform to be dominant in the formal or informal mode. But today I'm just going share a quick example with something that we are all familiar with - usernames - the names we use to sign up for social media accounts.

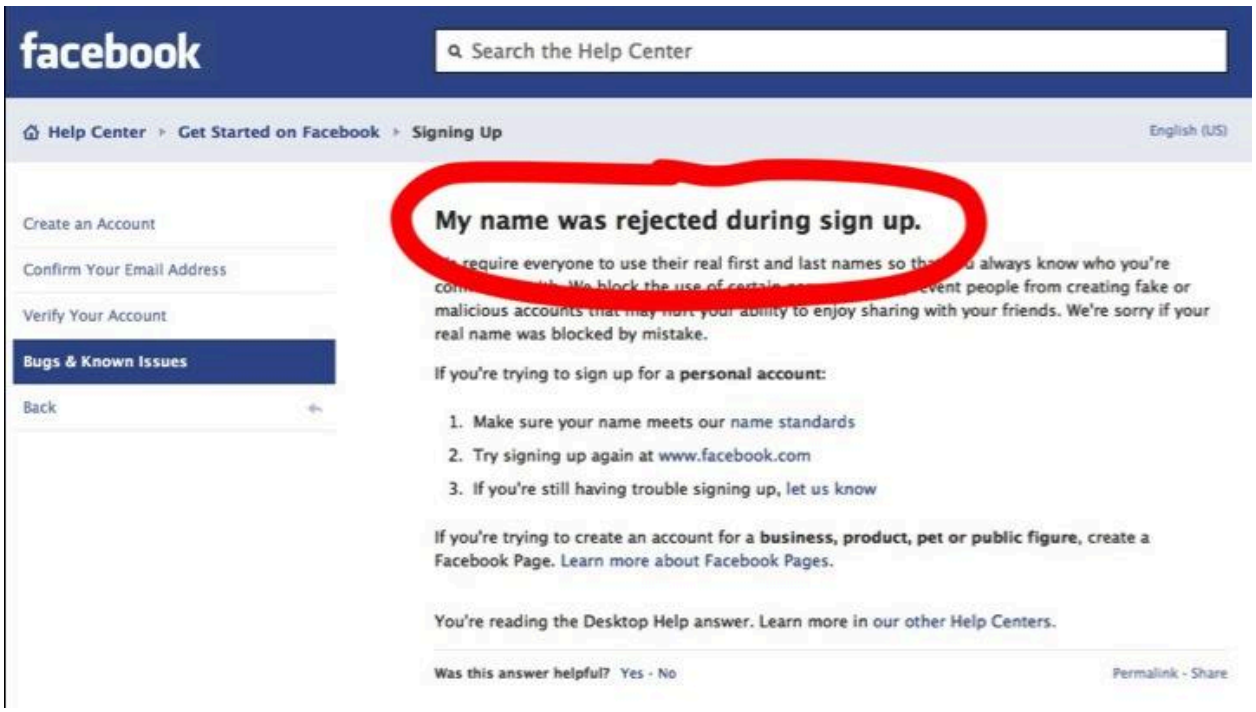


On Facebook, we are expected to create one account using our "real names" and "real identities," and real information.



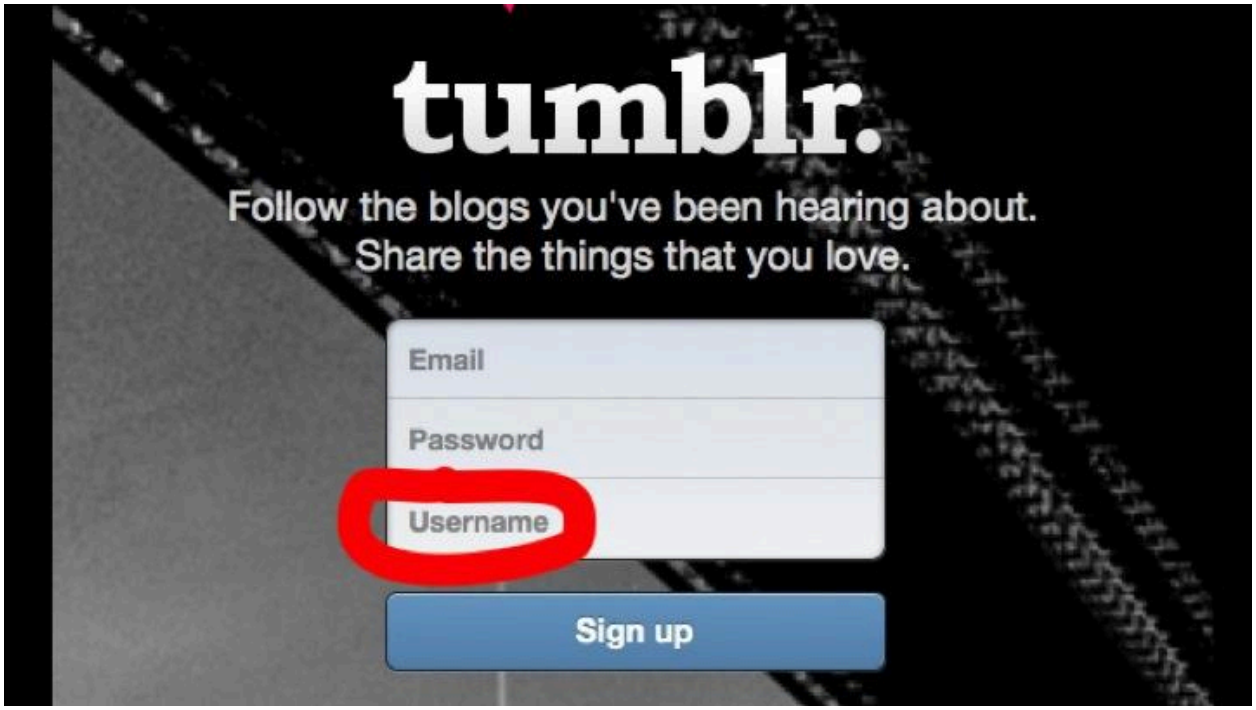
Facebook has an entire page that explains what counts as a "real name."

For example, legitimate names cannot include symbols, numbers, unusual capitalization, multiple languages, nicknames, titles of any kind, and the list goes on.
Oh and you also have to use the same name on your credit card or identity card.

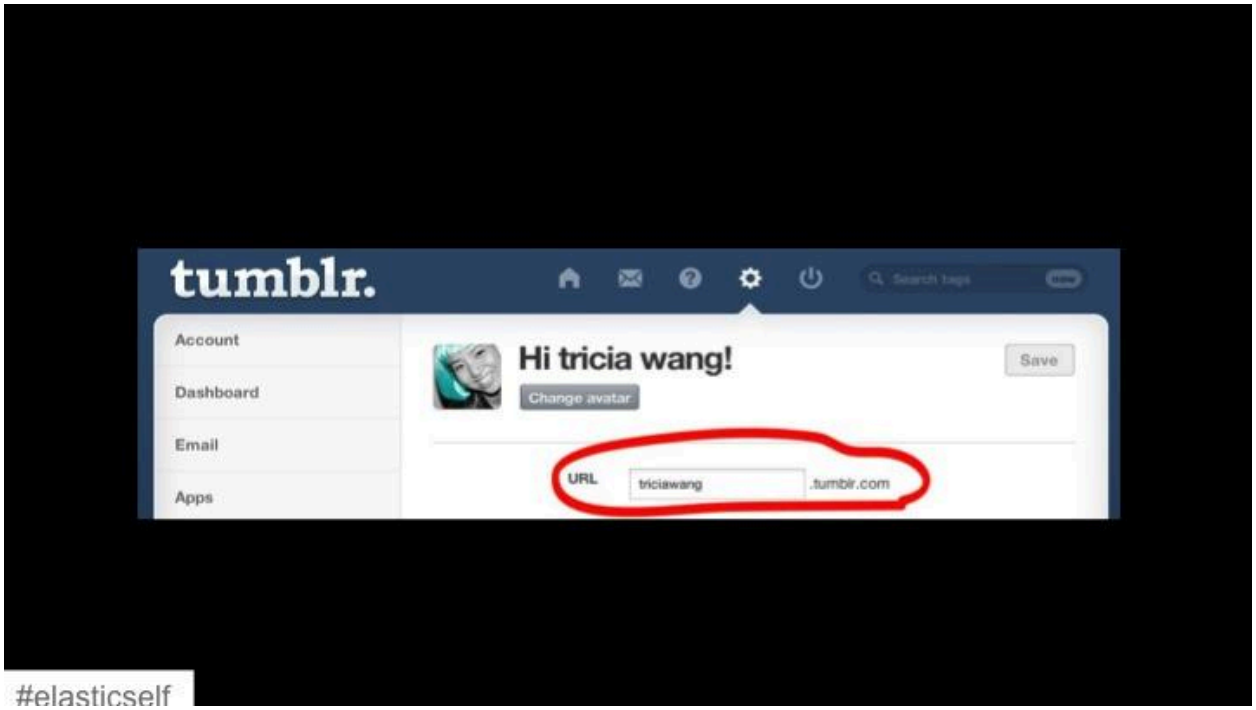


If your name is rejected, Facebook even has a page to explain why. And this page is necessary

because facbeook prevents people from signing up for new accounts quite often, leading some people to gripe that facebook hates their name.
But not every social media is like facebook.



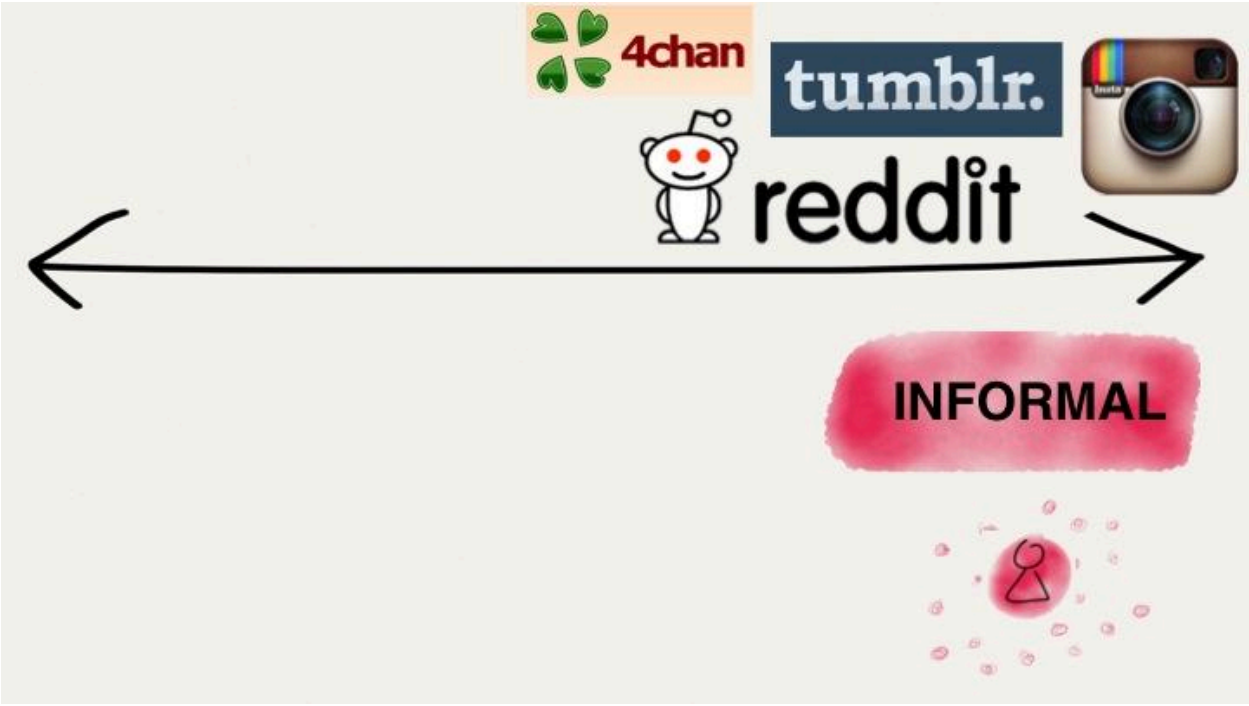
The most popular blogging platform, tumblr, operates very differently. On tumblr, users have a great degree of malleability with their identities.
Tumblr does not even care whether people are using their "real names" or "false identities" because all usernames are within the realm of possibility.



And at any point in time, people can change their tumblr url (the sub-domain), the part that comes before the .tumblr.com domain. This happens all the time.
Youth like Amanda do this because her ideas about herself and the world are constantly changing.

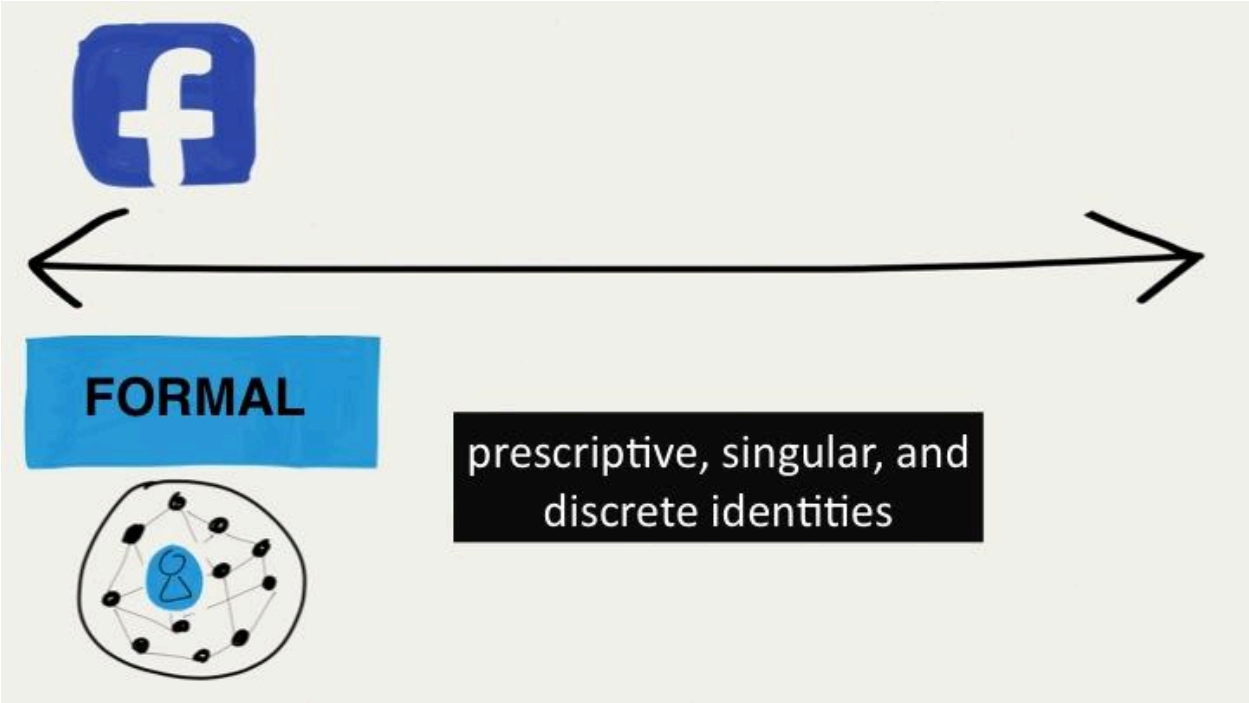
Youth's identities are not static and they want the flexibility to have that reflected in their profiles. **Sometimes, they don't want to be discoverable.** They want to **resist search engine optimization** (SEO) and often, they want to get away from people they know because they want to express emotions that they aren't ready to share with friends, family, and colleagues.

So the malleability in identity makes tumblr dominant in the informal mode.



If you look around the web, there are many other platforms like tumblr that are dominant in the informal mode - from reddit to the millions of messages boards and digital games on consoles, computers, and handheld devices**, these are the spaces** where a wider spectrum of identities emerge.

This is where sociality & identity veers towards the exploratory, performative, and even fantastical because this is where people tend to socialize with people they do not know.
The Elastic Self flourishes in the informal mode because in the presence of strangers, individuals feel more liberated to try on different identities without the pressure of committing to just one.



When we look at platforms dominant in the formal mode like Facebook, identities are prescriptive, singular, and stable.
This is where social interaction tends to mirror or extend existing interactions because people are socializing with people they already know.
So when people are surrounded by friends, family, and colleagues, **whether offline or online, they** can feel socially restricted from exploring or expressing anything that may counter their prescribed self or dominant norms.

So when Liu Liu wanted to explore what being gay meant, he do not want to do this around people he knew, especially to people who would make him feel ashamed.
So he chose to experiment with profiles and interactions that **gave him social distance from people** he knew.
So much of what people do with computers and social media in the informal mode is a secret.
It's a secret because people have pride, shame, hope, and fear.
They have emotions that they want to keep from people they know.
You may not personally relate to any of the examples I have given, but we all engage in the Elastic Self - we all have secrets and moments that we don't want to share with people we know. We erase our web browsing history. We have thought twice about posting something to

facebook. Sometimes its nice to talk to a stranger on a plane or at a bar.

This has always been the case, even before the internet.
It's just that social media platforms that are dominant in the informal mode have made these anonymous interactions for the Elastic Self much more accessible.
But this division of platforms between the informal and formal mode is not a hard and fast thing. It's not universal or static. Users engage in emergent behaviors that subvert platforms all the time. Most facebook users are like Ernesto - they use it for formal modes of interaction to talk to people they know. but then users like Amanda also create fake accounts to find strangers. Platforms shift into one mode depending on the context.

And that's why people and products misinterpret the meaning of people's social lives, **codifying it in a way that forces** people into static relationships that don't reflect the fluid nature of actual relationships. For any **UX engineers or any designer to think that they can design social experiences** without deep social understanding is absurd. It's be like trying to study fairness among monkeys, **but through graphs alone.**

If I was looking for the data around any of this Elastic Self behavior, I'd never find it, because what I'm talking about is a resistance to data culture to begin with.

If you're looking at the ways that people *actually* interact on computers, you realize that this is not the tool to see the field, it *is* the field. The fascinating part about computers is how people use them in ways that **are totally mysterious and unpredictable**. And the only way we would know this is if we see users as humans, not data points.

PART 5: Why ethnographers are more needed than ever and why we must change the way we communicate our work.

The work we do as ethnographers is more needed than ever because the world has mistaken computers as merely machines to produce *measurement tools*, while missing out on the fact that they've also been producing genuine social spaces that can only be understood through experience and stories. But we have to address a few challenges in our field.

The first issue is that ethnographic work is largely invisible.
We don't get awards like designers because our work is not front-facing.
There is no insight or co-creation workshop of the year trophy.
We produce analysis for leaders, programmers, designers, managers, sales, marketing, & R&D to act upon. Much of the time, the value of our work resides in what doesn't happen.
So we have to find ways to **make the invisible visible,** and that includes our own work.
And you can do this in many ways.

danah boyd speaks across multiple disciplines to tech organizations about the importance of understanding users as humans.

One of the things I've been doing is live fieldnoting - using social media to publish fieldnotes

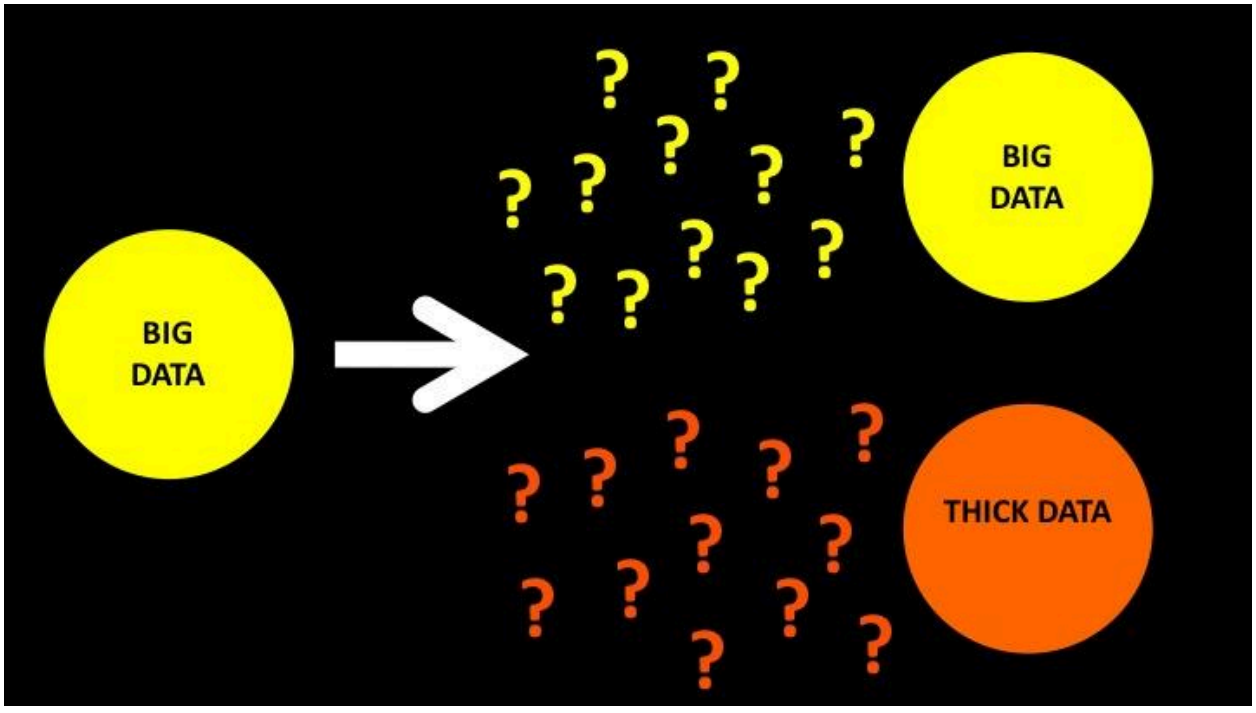
when I am doing independent fieldwork so that my work is visible to the general public in ways that are accessible, searchable, and linkable.

The team at Ethnography Matters - of which I'm a part of - curates open content around innovative uses of ethnography, and we make great efforts to showcase the work of people who don't necessarily identify as ethnographers. We've featured many great folks like 2012 EPIC co-chair John Payne (Teaching Ethnography For User Experience: A Workshop On Occupy Wall Street) and Sam Ladner (Does Corporate Ethnography Suck?).

These are just a few examples of some of the new ethnography I've been seeing.
The combination of all of these efforts addresses the second challenge in our field - reminding others and ourselves that a fundamental aspect of our work,
storytelling, matters more now than ever.

In the face of Big Data, our work is commonly referred to as small data. When I asked people in our field why people call it small data, nobody knows why! Perhaps it was chosen because small is the opposite of the word big. But I think we need to be thoughtful and strategic about the words we use to describe our work to people who may not be familiar with it or know its value. To me, "small" does not capture the kind of data we gather.

And that's why I call it Thick Data. So when I talk to companies, I explain to them that Big Data can only give you data points. You still need experts to explain the data, which can require gathering Thick ethnographic insights. But I'm not saying that we don't need Big Data or computers. On the contrary, ethnographers must work with more integrative and agile research models that bring out the best benefits of Big and Thick Data. Big Data presents an opportunity for ethnographers to show the value of our work.



Now that companies have increased spending on Big Data, they need Thick Data because Big Data produces new questions - some that can be answered through more Big Data, but some questions can only be answered through Thick Data approaches. The new ethnography is not about qualitative researchers working in a silo. The new ethnography is about sitting at the table with Big Data folks so that we can be right there and advocate for the humans.

This is how we can help organizations lift the Curse of Kelvin: by introducing new models and approaches that restore an image of what the world really looks like and how it really works. Perhaps in 50 or 100 years, "data" in all its forms will be just as normalized as electricity. But before this happens, we have a chance to shape the way people think about data.

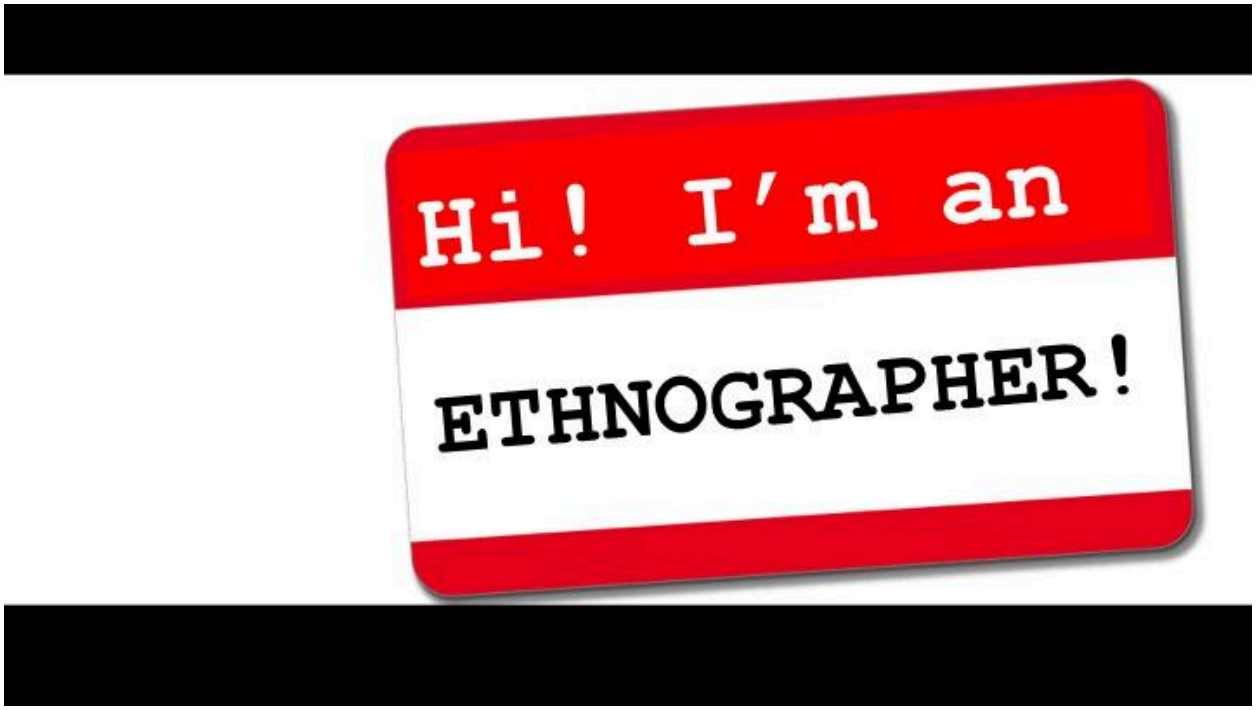
This does not take magic. It takes confidence in the belief that we can learn from the world in multiple ways from observing massive groups to analyzing micro-interactions. Although Institutions have lost this sense of confidence over the last few decades because after UNIVAC came countless companies that have drilled in the same message - computers, algorithms, software, statistics - all of this will make you a more efficient and/or profitable organization.

So people started thinking, we don't have to talk to our stakeholders - that's a lot of work! We can just get their data, scrub it, standardize, it, normalize it - and run it through some programs. As organizations gave more power to quantifiable approaches, they lost confidence in human approaches. Fortunately, all of us in the room already have this confidence.

We just have to continue following in the footsteps of those who have led the way - Lucy Suchman, Elizabeth Churchhill, Jane Suri Fulton, Brigitte Jordan, Tracey Lovejoy, Ken Anderson, Nina Wakeford. We are gathered here today to continue their efforts in asking the hard questions about where our field is going and how to move forward strategically.

And the organizers of EPIC have structured our 3 days together to tackle these questions. Coming up after the break is Rogerio Abreu de Paula's session on Big Data and later this afternoon is Stefana Broadbant's session on how ethnographers are now responsible for taking part in massive organizational transformations that are super complex. Tomorrow, Hiroshi Tamura will start our day with a session on new practices in our field and Martin Ortleib will end the day with a paper session on how ethnographers interface with multiple stakeholders inside organizations. Then on Wednesday Martha Cotton's session will reflect on the past, present, and future of the EPIC community.

And in between all of these sessions, we have inspiring keynotes from David Howes, Daniel Miller, and Genevieve Bell. And to top it off, we have pecha kuchas, salons, artifacts, a town hall on Big Data, and workshops that are going to even dig deeper.



So for these 3 days we get to do something magical. Something that we don't usually get to do**:** **we get to set aside our prescribed selves** that we present to clients, students, employees, and employers, and just speak frankly as ethnographers to ethnographers about our field and

where it is heading.

And no computer can predict where we are going.So who better else to figure out the future of ethnography in organizations than those whose job it is to identify the unknown.

Thank you so much for listening! I can't wait to get talk to you all afterwards! Let's have some fun!

Thank you to EPIC 2013 organizers for inviting me to speak. This opportunity forced me to articulate some of the ideas that have been brewing in my head for a long time. Biggest bear thanks to Kevin Slavin and Kenyatta Cheese who listened to the earliest drafts in my head to the more polished written text. I exchanged a flurry of emails with Elizabeth Churchill who patiently explained to me the details of EPIC's history. At the last minute I had also asked Rich Radka and Simon Roberts to do a read over, which I greatly appreciate because their feedback improved the talk. Thank you to Sara M. Watson for providing edits to the summary. And as always, I love my editor, Sean Kolodji.