

Think like a (f)uturist

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etcSM | ENTERTAINMENT
TECHNOLOGY
CENTER



PHOTOGRAPHY & RECORDING ENCOURAGED

Slides at www.PhilipLelyveld.com

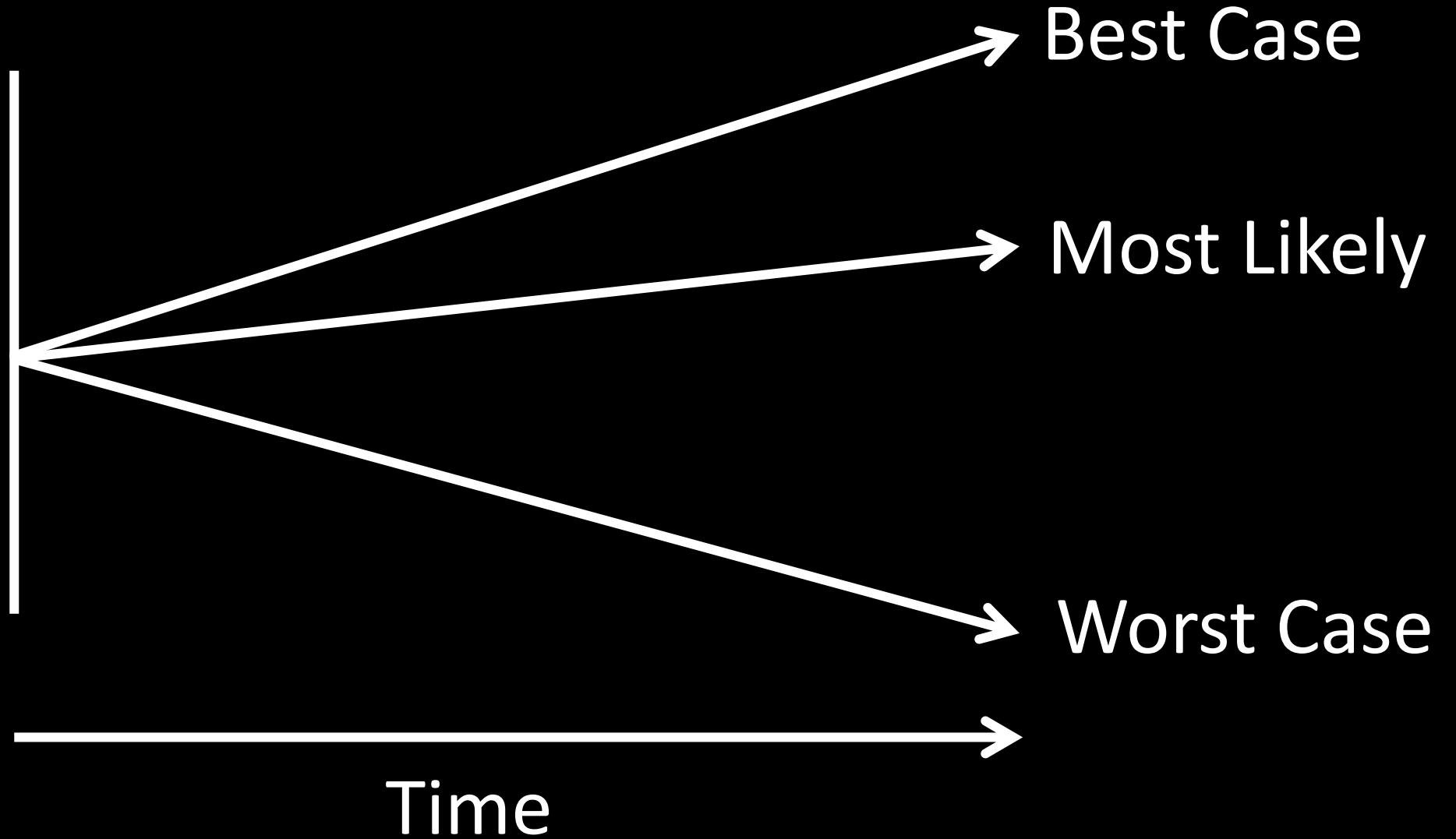
Think like a (f)uturist

- What's Next? Incremental Moves
- Set-up for Conceptual Jumps
- The Immersive Story Difference
- Moving Toward a Bigger Point
- The Three Internets
- How can you create a future that you want?

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Basic Technique



Basic Technique

Best Case

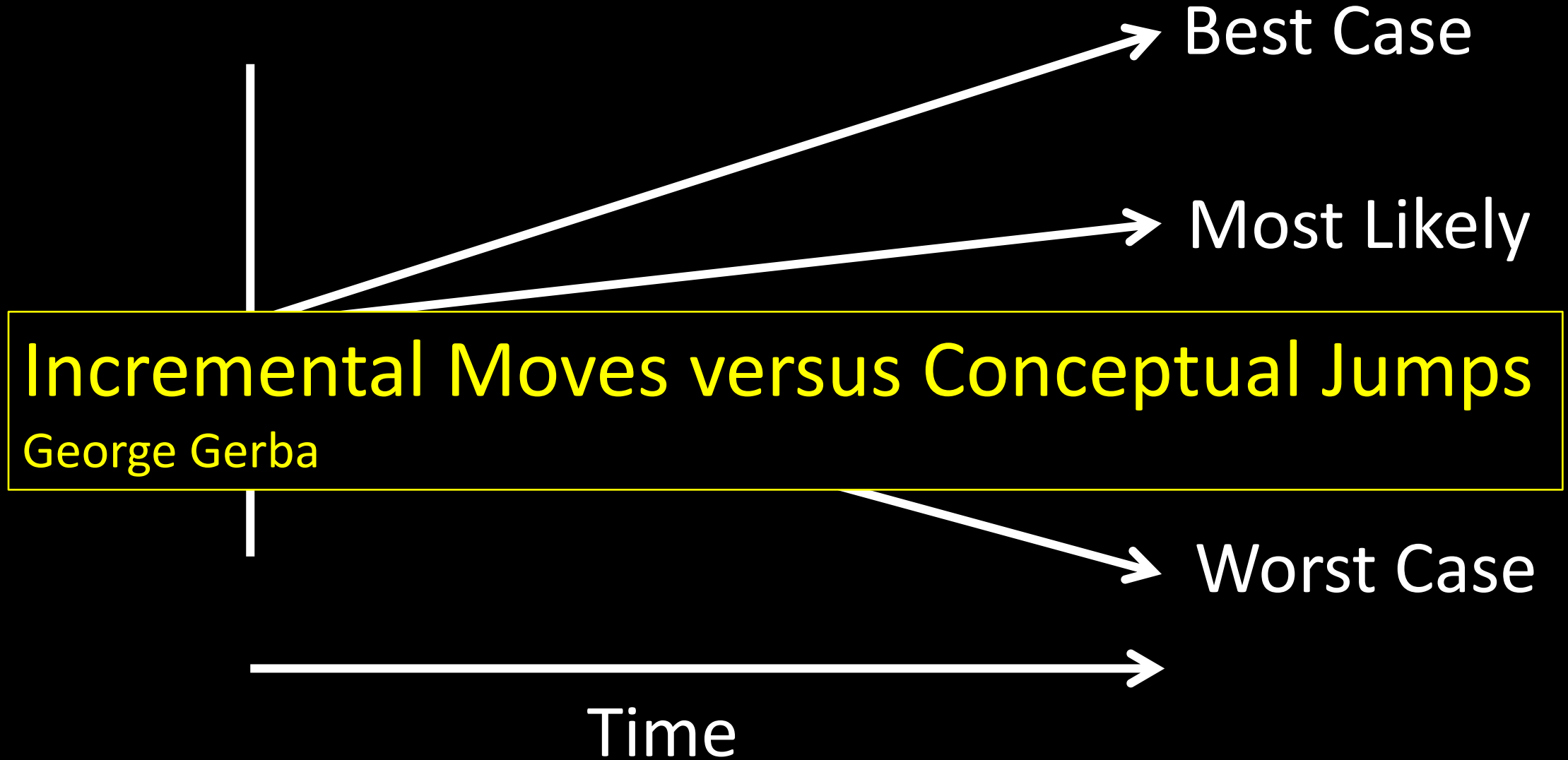
Most Likely

Worst Case

Incremental Moves versus Conceptual Jumps

George Gerba

Time



Futurist Workshops

Frame a challenge

Future of...

Movement/Mobility

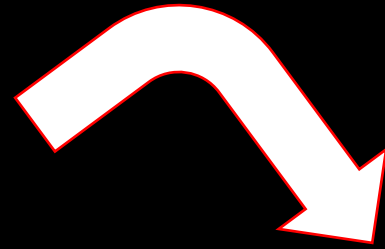
Infrastructure

Entrepreneurship

Work/Education

Community/Society

Life/Health



Breakout Discussions

Utopian OR Dystopian

Regroup

Discuss how Utopians can
avoid Dystopian problems

Develop Business Ideas
Informed by the discussion

ETC@USC Immersive Media Challenge

What is the Immersive Media Challenge?

- Come up with a concept for an engaging experience that should be buildable in 3-5 years
- Explain what needs to happen that will make building it possible

- City Play
- For Good
- For Fun
- For Health

The Museum of Romance

Have personalized romantic experiences across cultures and scenarios using VR, AI, haptics, and motion capture

3-5 year guidance in this idea

Human actors → AI Characters

Story from different cultural perspectives

- painless exercise in cross-cultural understanding

Multisensory story thinking

- soft gel heated hugging robot

ETC@USC Immersive Media Challenge

- Museum of Romance – cross-cultural storytelling
- Lumeum – VR for the senior population
- placeLA – grassroots neighborhood planning tool
- Viewfinder – emotion-reactive exploration game

Your experience governs your thinking

The tech defines the boundaries of creativity
unless you can code to redefine the boundaries



Completed by
Grandpa Abe Lelyveld
(1960)

Paint By Numbers Hobby Kit



Andy Warhol
Do It Yourself (Flowers)
(1962). © Andy Warhol.

Your experience governs your thinking

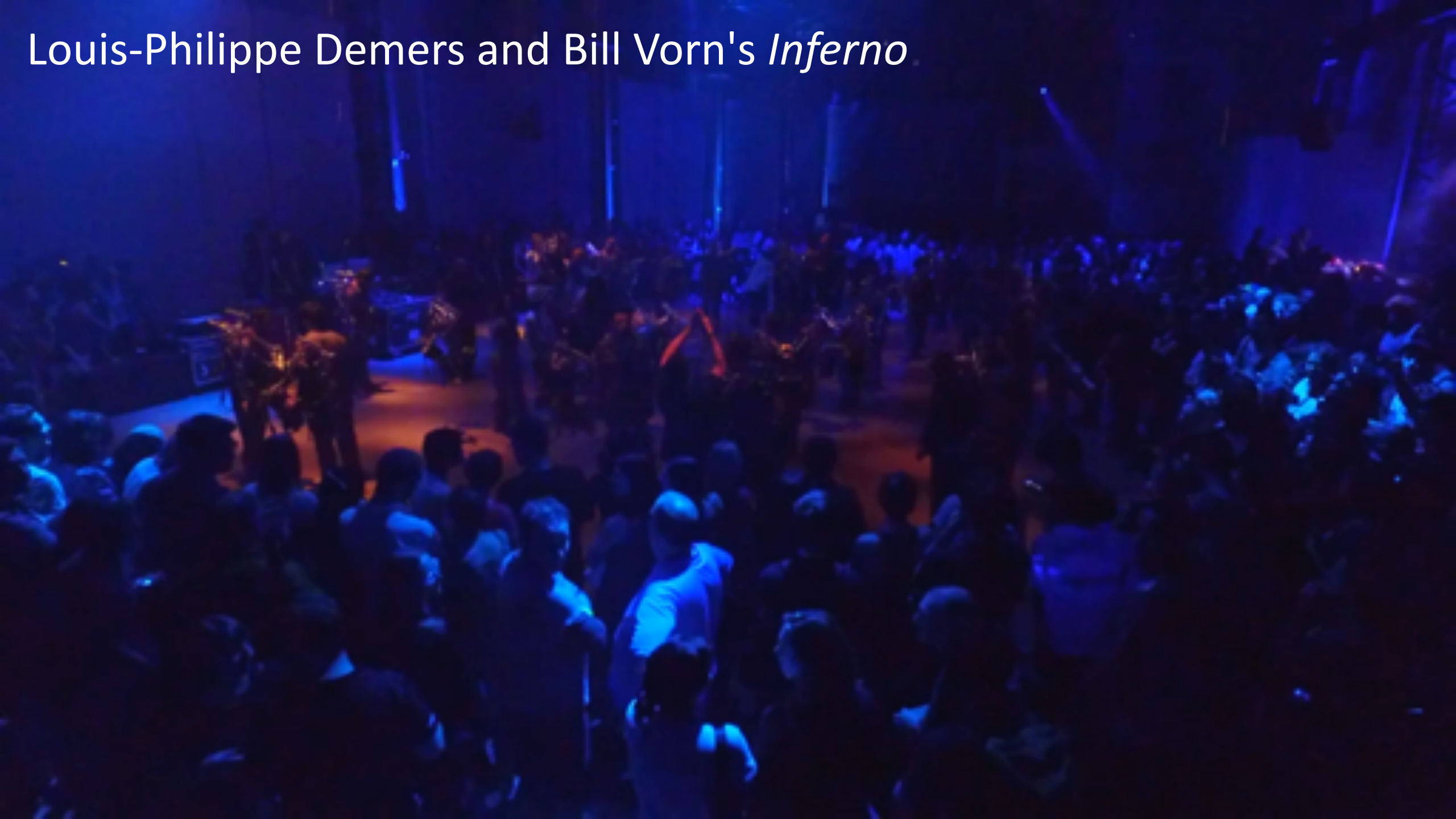
Using the features of a tool creatively is an
incremental move vs a conceptual jump

The tech defines the boundaries of creativity
unless you can code to redefine the boundaries

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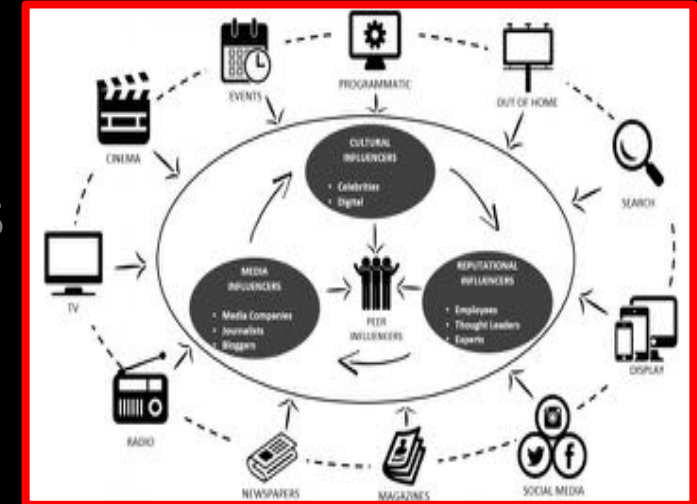
Louis-Philippe Demers and Bill Vorn's *Inferno*



Framing up the drivers shaping the creative future

A short list... (1 of 2)

- More complex technology ecosystem:
More platforms, more channels, more capabilities, 5G
- Audience fragmentation
Fragmented channels, time, and audience segments
- Virtual vs Real, Passive vs Active
- Virtualization of platforms and workflows



A short list... (1 of 2)

- More complex technology ecosystem:
More platforms, more channels, more capabilities, 5G
- Evolution of UI may destroy the whole concept of a 'platform'
 - **Smart fabrics** and **flex screens** as I/O devices can cover anything!
- Virtual vs Real, Passive vs Active
- Virtualization of platforms and workflow

Neuralink
Brain-computer
interface chip



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A short list... (2 of 2)

- Explosion of data across formats
- New expectations around security,
- Organizational shift:
 - AI organizations and the end of the matrix model
 - Dynamic and decentralized
- The Age of Narrative:
 - The most successful media properties are those which lay out a complex narrative universe...a microcosm



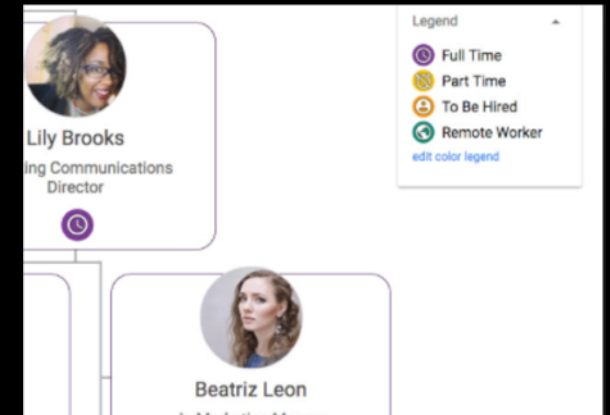
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Opportunities & Challenges...

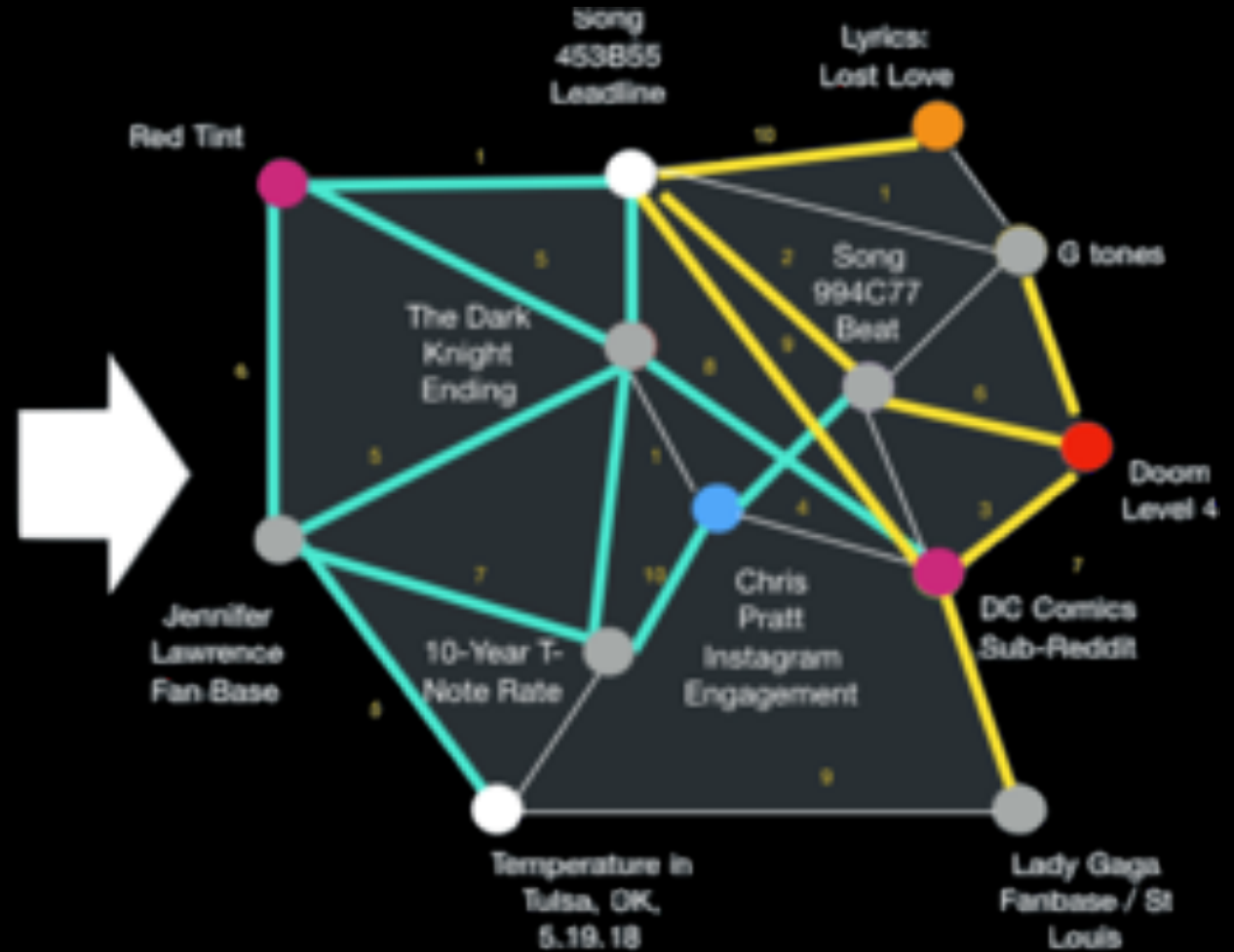
- New content formats
- New consumption times, places, and states
- Personalized experiences
- Insights-driven, relationship-based marketing
- Distribution methodology
- New forms of narrative



Systems Media



Markets



Ecosystem



The Dude abides

The Big Lebowski

“The Dude abides” essentially means ... the Dude exists in peace with the many things that perturb him. There are many issues and problems, and he “abides” them, which means that he endures them and accepts them, withholding his approval but vowing his non-interference.

[DictionaryKiwi.com](https://www.dictionarykiwi.com)

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Immersive story difference

- In your face
- In your space
- In your life

Immersive story difference

- **In your face:** heading towards an intellectual and biological connection with platforms and content: mobile 5G, VR/AR, AI, IoT, haptics, scent, retinal displays, brain implants
- **In your space:** ecosystem of platforms creates opportunities to immerse audiences' lives into the content
- **In your life:** deep narrative creates extreme cognitive affinity and passion and invites increasing personalization

5G

(a proxy for zero-latency high-bandwidth persistent connectivity)

5G enabling more powerful ...

└ Immersive Media – override and enhance

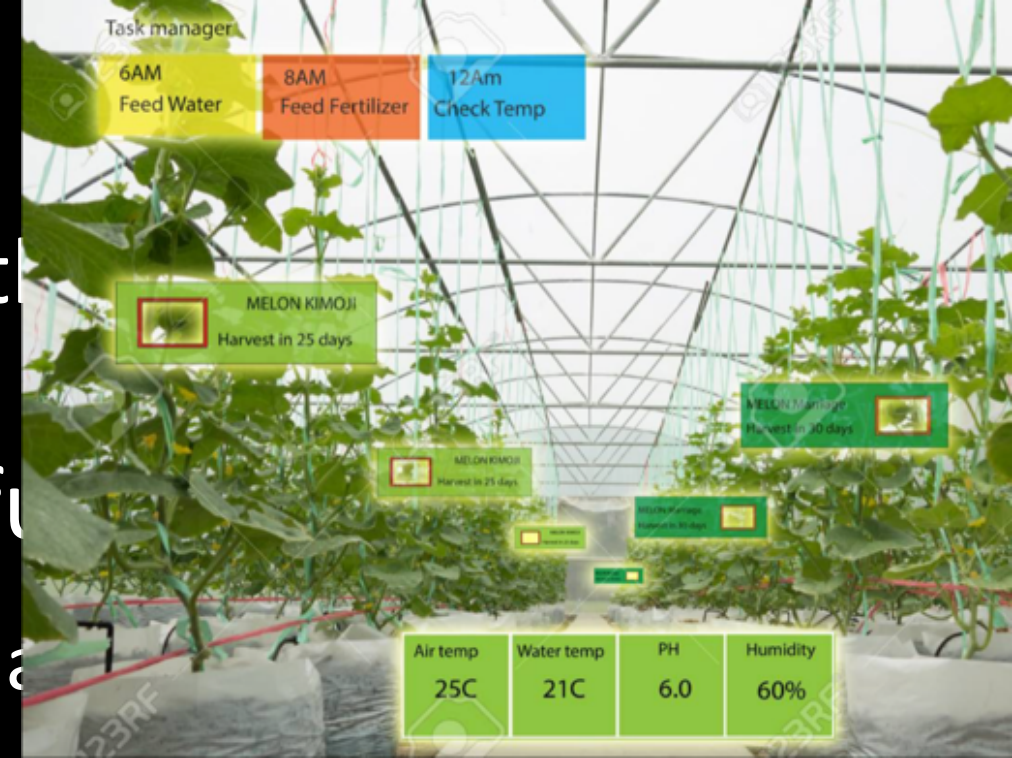


5G

(a proxy for zero-latency high-bandwidth)

5G enabling more powerful

- Immersive Media – override a
- Internet of Things – gather and control**
- Artificial Intelligence – support and replace
- Social Media – connect and convince



5G

(a p

ectivity)



- Artificial Intelligence – support and replace
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5G

(a proxy for zero-latency high-bandwidth persistent connectivity)



└ Social Media – connect and convince

5G

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5G enabling more powerful ...

- └ Immersive Media – override and enhance
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Language of IM



“Where we’re going is not VR movies anymore.
It’s characters who live with us and that we believe in.”
Fable Studio co-founder Edward Saatchi (Formerly Oculus Story Studios)

Virtual Beings | Conference

ARTIFICIAL INTELLIGENCE IS THE NEXT GREAT ART-FORM

SAN FRANCISCO, WINTER 2019

<https://www.virtual-beings-summit.com>



Learning from Lucy

by Wolves in the Walls Director
Pete Billington

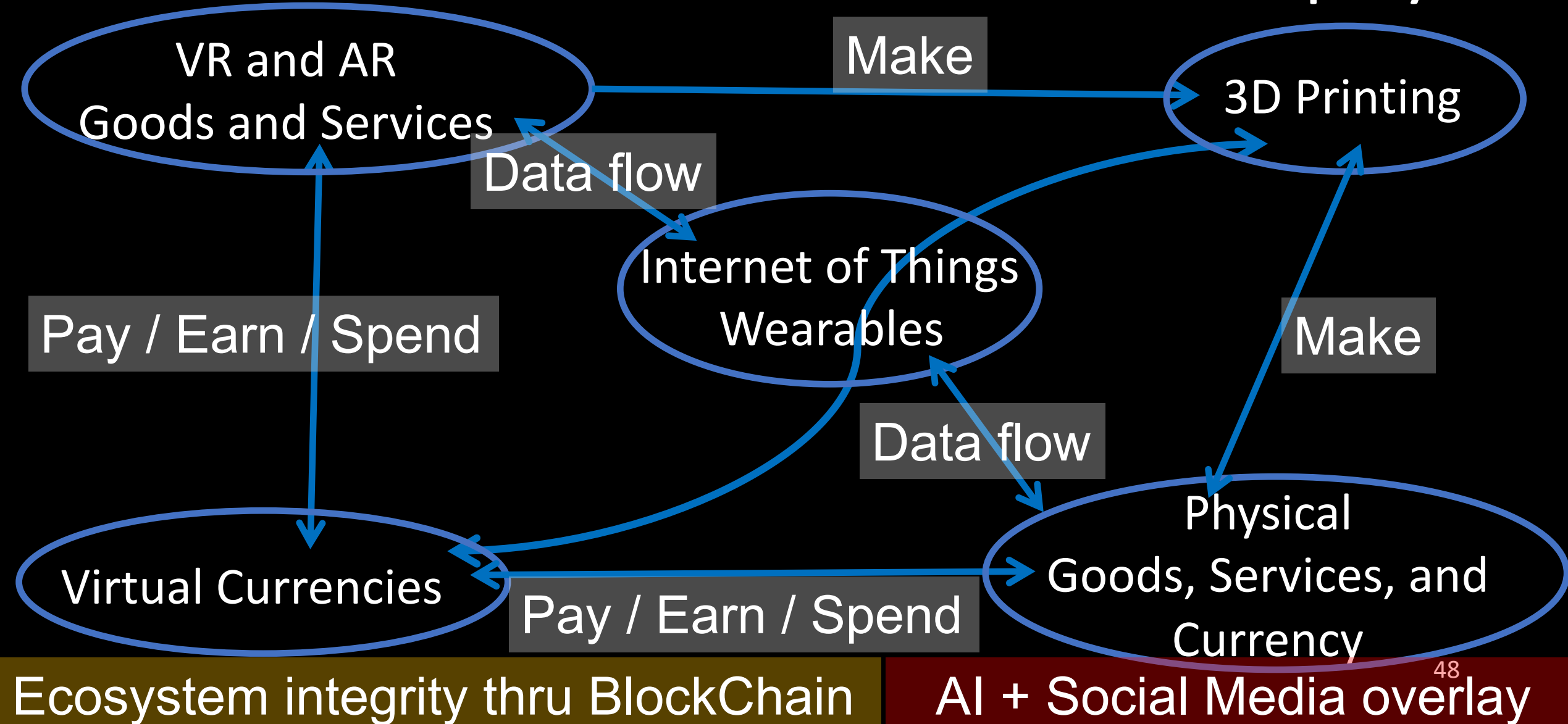
*Excellent description
of Fable Studio's
thinking and process*

<https://www.virtual-beings-summit.com/content/the-evolution-of-lucy>

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Erasing the boundaries between real and virtual worlds of work and play



The nature of reality is, once again, evolving

Language

Printing press

Telecommunications

Computing

Multisensory
Immersion



Redefining reality

A man wearing a VR headset and a woman in a low-poly digital suit standing in a futuristic environment. The man is wearing a grey long-sleeved shirt and a grey scarf. The woman is wearing a low-poly, orange and yellow digital suit. They are standing in a room with a large window in the background.

Where do 'I' begin and end?
What is public vs private information?
How do I know what only I experience?

Why it matters: **emotional manipulation in MR by A.I. (or by people)**

Research* shows that **the concept of The Self is really fragile**

- Embodiment, you quickly adjust to super long arms or a child's body
- **Emotionally, how you are responded to in MR can have a strong impact on your self-image and self-worth**

* Mel Slater, ICREA Research Prof. at Univ. of Barcelona, Spain, leader of the Experimental Virtual Environments (EVENT) Lab for Neuroscience and Technology

Tip Jar donations increase 48% with eyes Vs undecorated jar



Ethology
Int'l Jnl of Behavioral Biology
5/3/19

RESEARCH PAPER

Eye Images Increase Charitable Donations: Evidence From an Opportunistic Field Experiment in a Supermarket

Kate L. Powell*, Gilbert Roberts† & Daniel Nettle‡

“Fakeness is being normalized”

Rob Tercek

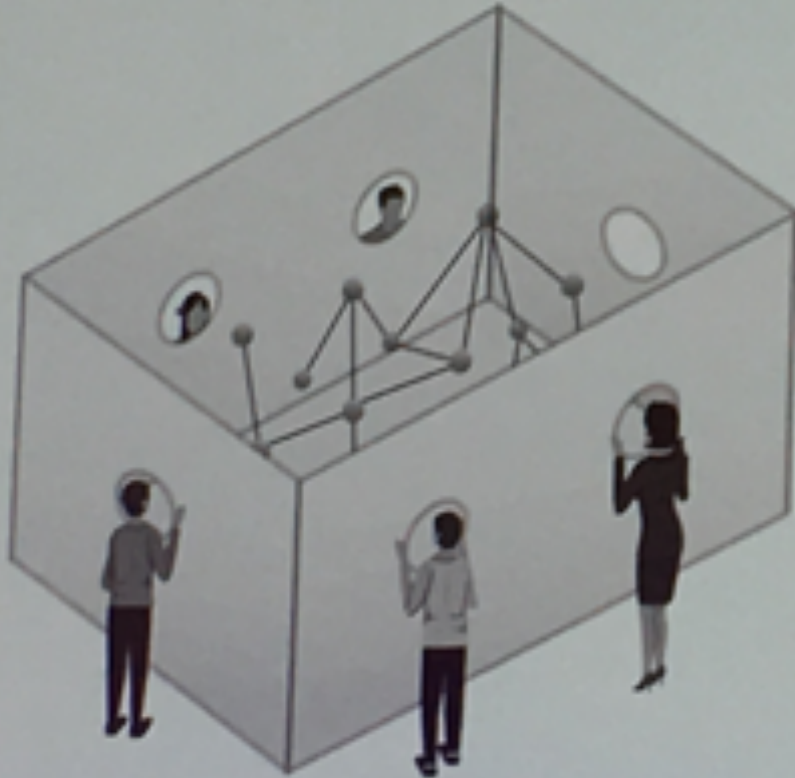


Bella Hadid with Lil Miquela



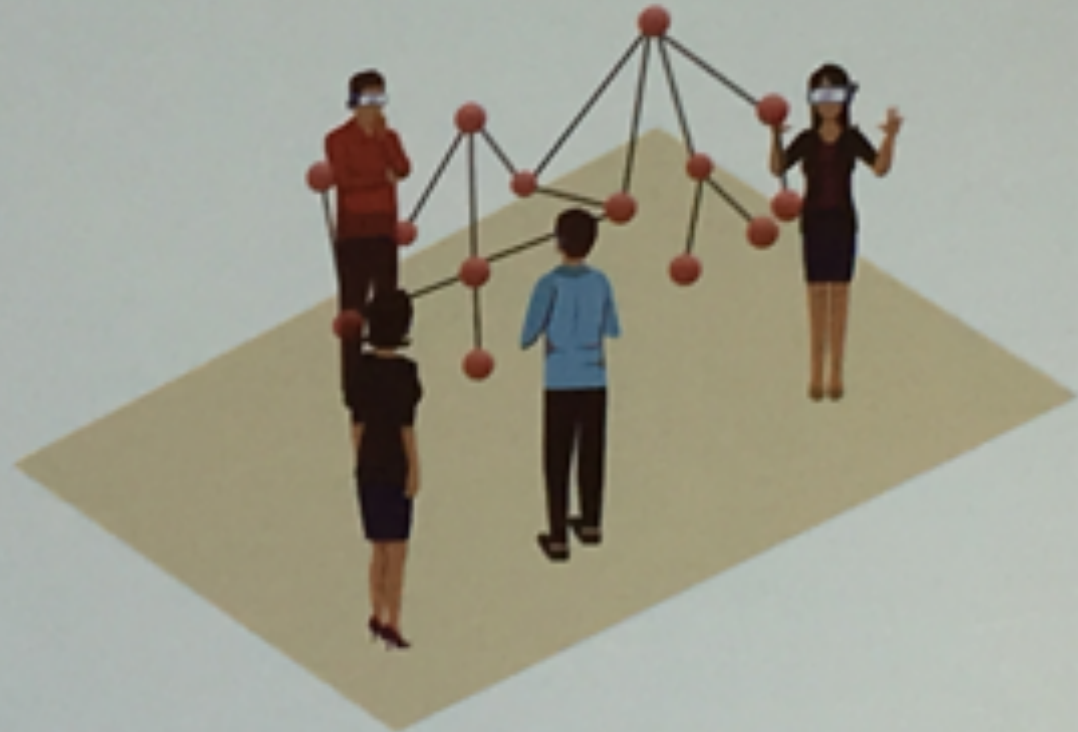
Colonel Sanders,
Virtual Influencer
and Tom Green

2D



- Everyone views a different slice of data
- Hard to share
- Fragmented analysis

Immersive



- Everyone views the same data
- Collaborative
- Holistic understanding

Anamorphosis

a distorted projection or perspective
requiring the viewer to occupy a specific
vantage point

The art of Bernard Pras



The social distortions that are the unintended consequence of social media business models are precursors to what a more immersive world could be like



A close-up shot of a man's face wearing a VR headset. The headset's lenses show a vibrant, futuristic virtual environment with glowing blue and orange elements, possibly a game or simulation. The background is blurred with warm, yellow and orange bokeh lights.

When IM arrives in its fuller and more integrated state,
the challenge for our technologically tiered society will be
how we stay in sync with one another.

- # Experience designers can play a role in;
- signaling personal vs community vs public
 - intentionally delivering common experiences
 - ensuring inclusion of diverse perspectives/data/...
 - establishing personal identity controls in an AR/IoT world
 - rating credibility of data or sources
 - building social fabrics



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A large crowd of people is gathered in a dimly lit room, likely at a tech conference or exhibition. In the foreground, a man in a grey t-shirt and blue jeans is walking towards the camera. Behind him, several people are seated or standing, many wearing VR headsets and using laptops. The scene is filled with people, suggesting a large-scale event. The text "Technology is morally neutral" is overlaid on the image in a large, white, sans-serif font.

Technology is morally neutral

Deployed technology is NOT morally neutral

Developers decide;

- functionality - what it can and cannot do
- what behavior it encourages and discourages



“Architecture is Politics”

Mitch Kapor, 1970’s

amazon
Prime

PhotoMagnets

Architecture is politics. - Mitchell Kapor -
quotes fridge magnet, White

[Be the first to review this item](#)

Price: **\$4.95** & **FREE Shipping**

Note: Not eligible for Amazon Prime.

“Algorithms are opinions embedded in code”

Cathy O’Neil

author of Weapons of Math Destruction, 2016

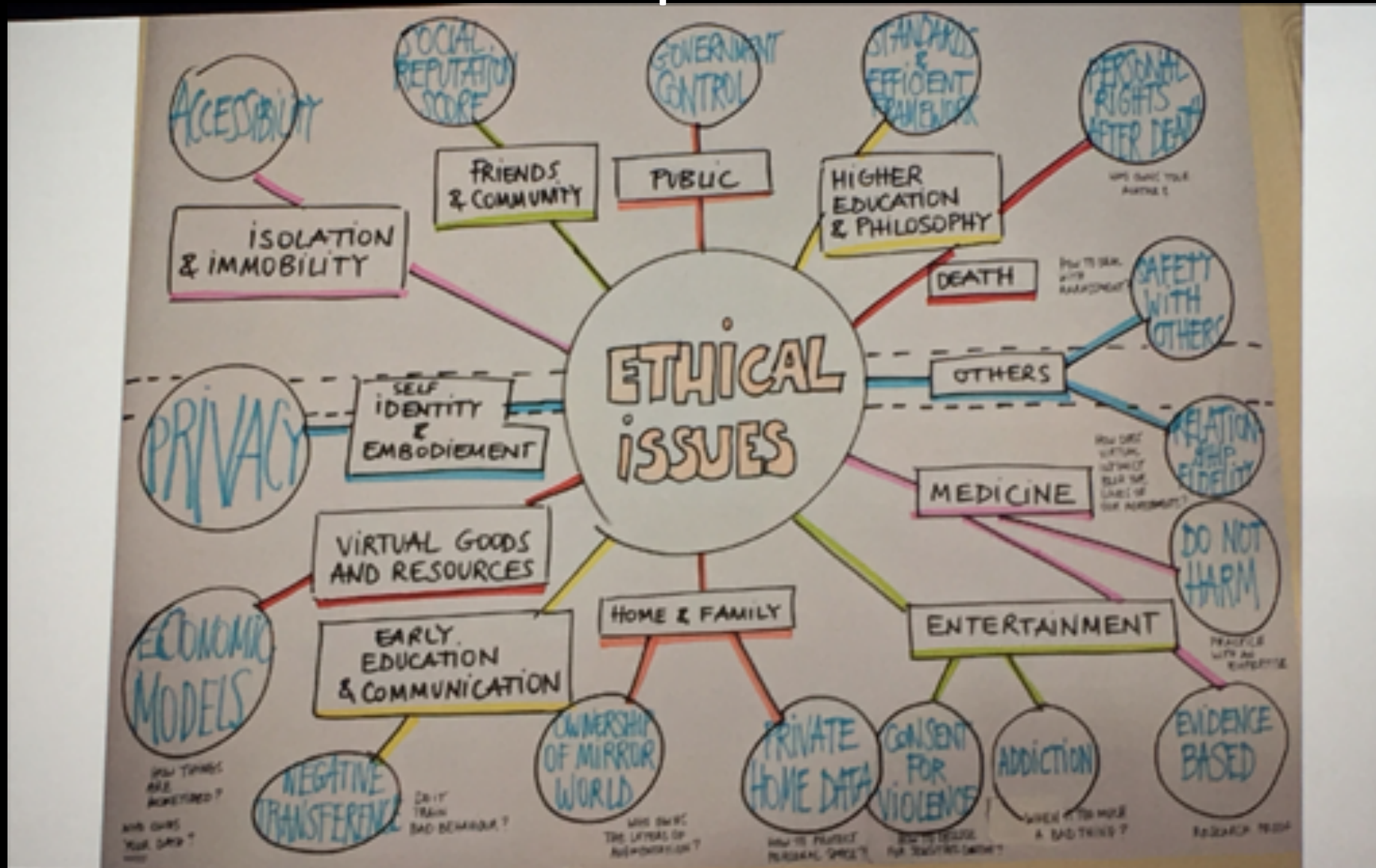
(algorithmic bias)

“If your tech philosophy is the equivalent of ‘move fast and break things,’ it’s a failure of both imagination and innovation to not also keep rethinking policies and terms of service – to a certain extent from scratch - to account for fresh social impacts.”

Tim Berners-Lee, 2018

Kent Bye

Laval workshop on Ethics in VR



The Ethical and Privacy Implications of Mixed Reality

Monday, July 29, 10:45, Theatre 411 (panel)

Moderator
Kent Bye
Voices of VR Podcast



Ethics

What principles do we want to take for granted?

- Universal Declaration of Human Rights
- Democratic Principles
- The Value of an Informed Citizenry

Josh Lovejoy

Microsoft Ethicist on product development team

AWE 2019 ethics panel comment

“Three Internets”

China – national reputation system (social credit score)

EU – GDPR (General Data Protection Regulation), Right to be Forgotten, ...

US – repeal of Net Neutrality, patchwork of state and federal controls and privacy rules (ex. medical and financial records) ('Informed consent' <> click license?)

Amazon patents 'surveillance as a service' tech for its delivery drones

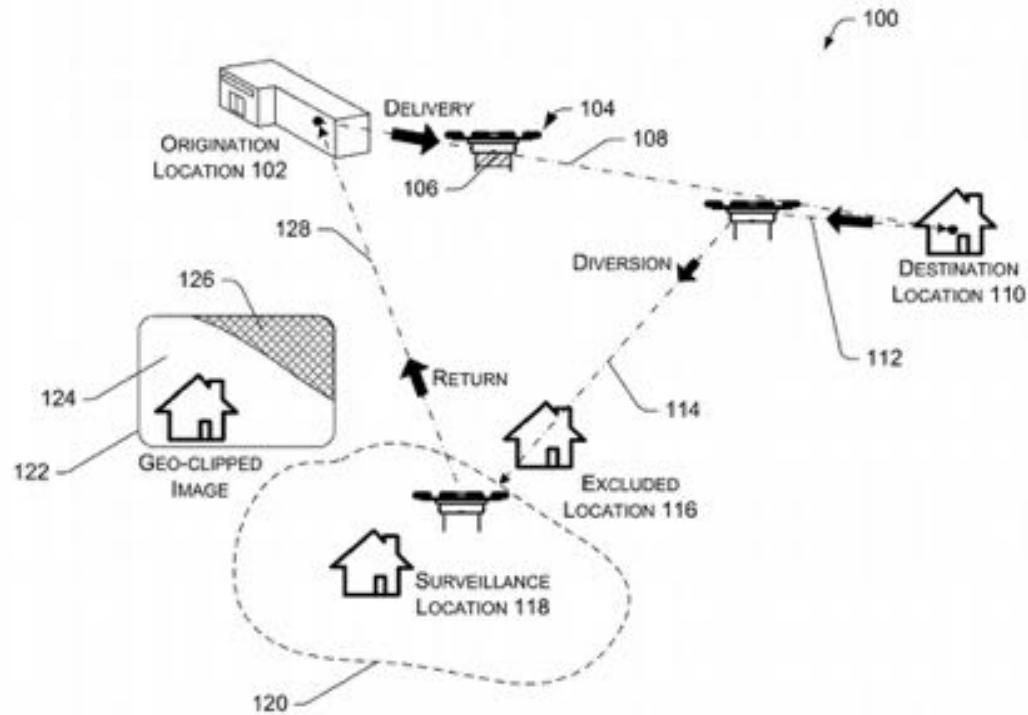


Fig. 1



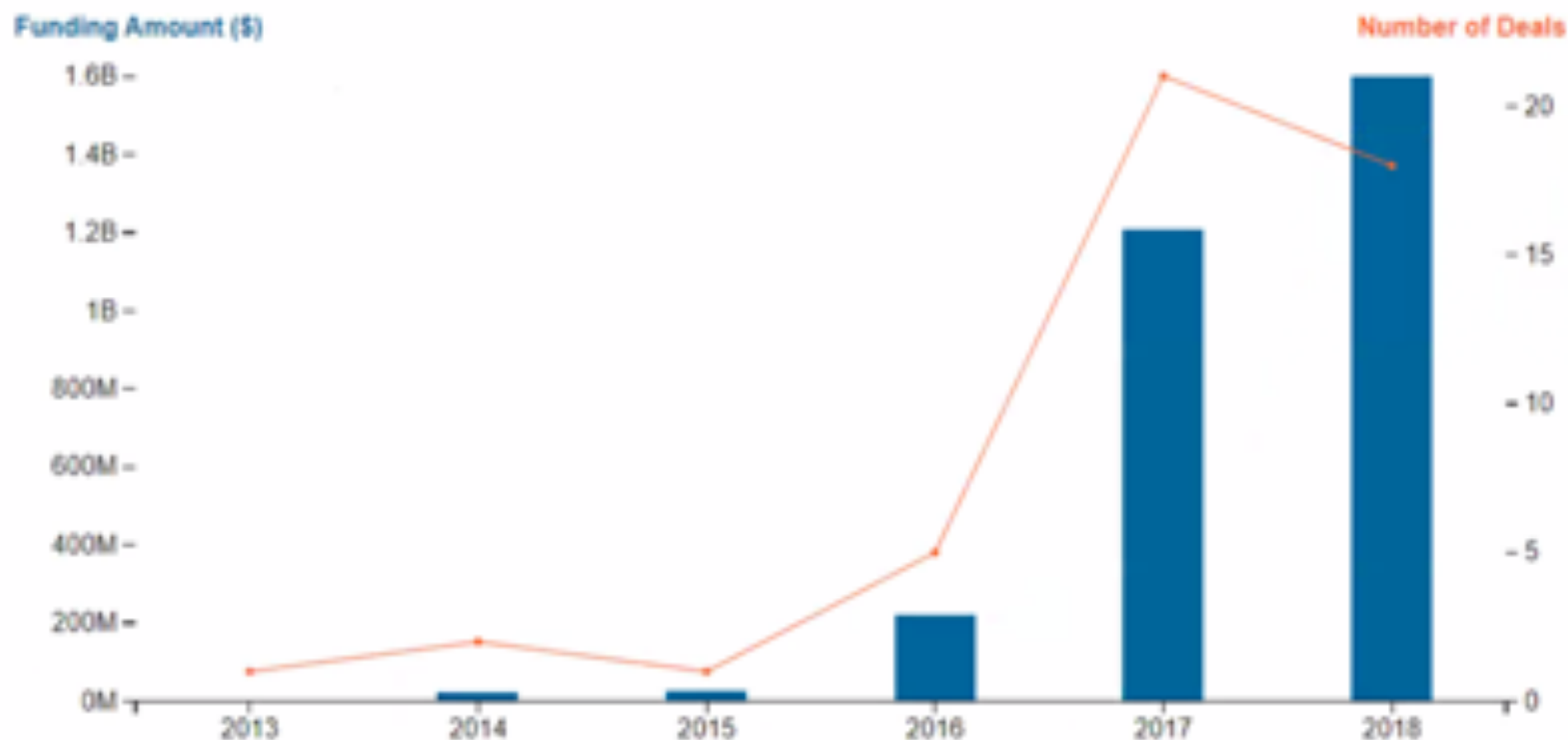


Short Term

GDPR has boosted Google and Facebook ad revenue because they have more “informed consent” and ability to manage compliance than smaller rivals.

Demand for facial recognition tech rises in China

Equity and non-equity deals, 2013 – 2018



Chinese border guards are putting a surveillance app on tourists' phones





World Conference on VR Industry

Nanching, China

Oct. 2018

250,000 attendees

“... promoting the development of real economy and breeding new driving forces for industrial growth while following the guidelines of Xi Jinping's thought on **socialism with Chinese characteristics for a new era** ...”

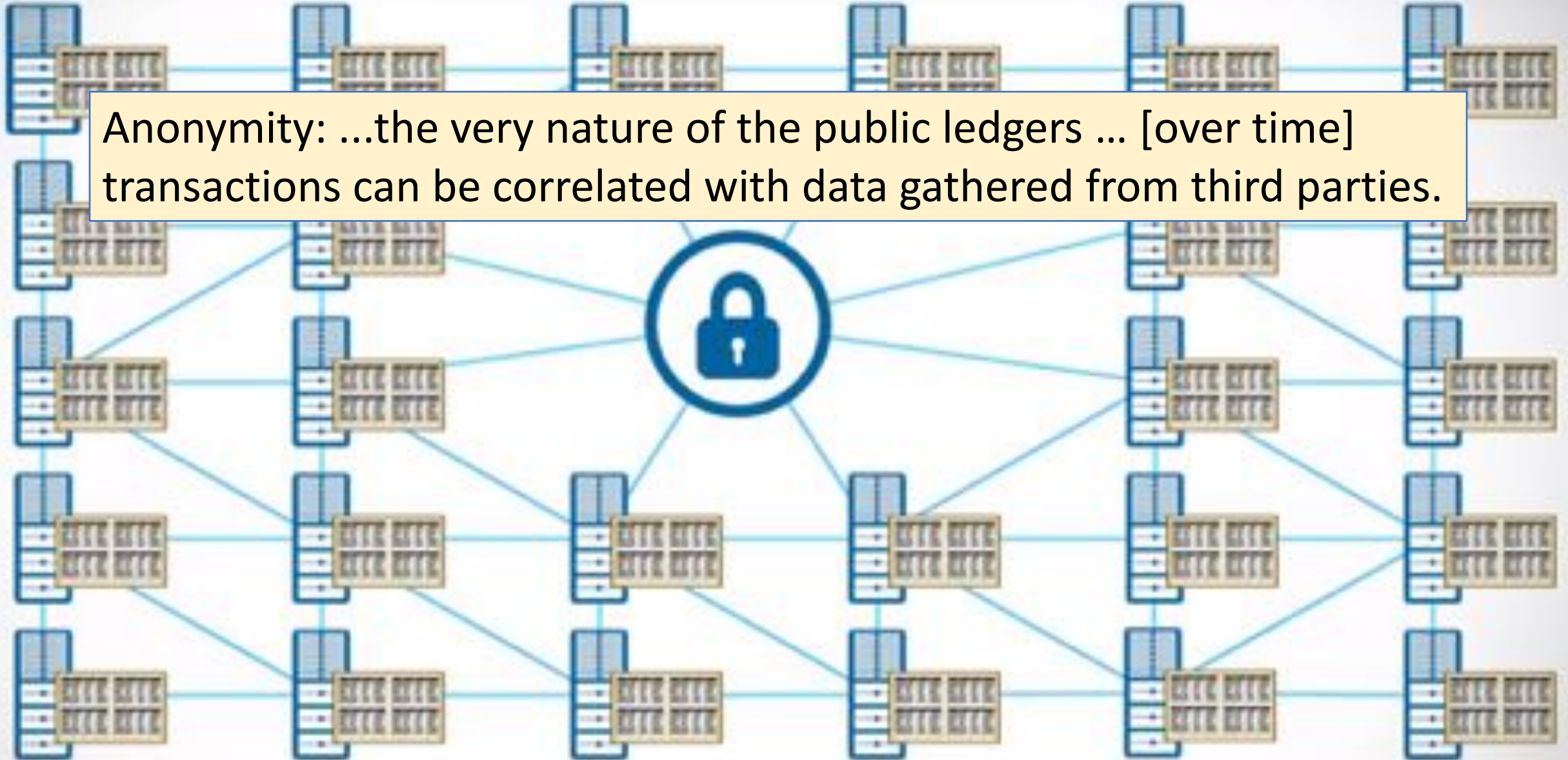
China's Central Bank is cautiously testing digital currency

- greater oversight of digital transactions
- reduce corruption
- facilitate cross-border transactions
- could be integrated into existing banking system
- distributed ledger might be used to periodically check who owns what



Blockchain is NO guarantee of anonymity or attribution

Anonymity: ...the very nature of the public ledgers ... [over time] transactions can be correlated with data gathered from third parties.



New **publicly available** algorithm
can identify 99.98% of users
in supposedly "anonymized" data
from almost any available data set
using as few as 15 attributes,
such as gender, ZIP code or marital status.



“These scraps of data, each one harmless enough on its own, are carefully assembled, synthesized, traded and sold. This is surveillance.”

Apple CEO Tim Cook
Oct. 2018



“...if ambient technology is to become as integrated into our lives ... we need to subject it to the digital equivalent of enforceable building codes and auto safety standards.”

Walter Mossberg, from his final column before retiring 5/25/17



“Regulation and a robust democratic process is the best way to handle some of these issues, but we also aren’t going to wait for those things to happen.”

Mark Zuckerberg
Aspen Ideas Festival
June 26, 2019

Standards and Enforcement

- Dominant player control
- Industry consortium self-regulation
- Government oversight and regulation
- Grass-roots social pressure

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Looping back

Work towards:

- Standardization – **broadly applicable** skill sets
- Interoperability – **sustainable** skill sets
- Diversity – address the needs and concerns of a **larger market**
 - Accepts that you are competing in a global market
- (re)Control – enable new business models that **(re)value** your work

Think like a (f)uturist
who also must be a realist



Think about:

How do these things play into your strategic planning and product/service design considerations?

- How can you take advantage of them?
- How can you help drive them?

Think like a (f)uturist
who also must be a realist



Think about:

How will you determine what is an **industry** vs a **company** responsibility?

- **industry**: items fundamental to your industry that build the business ecosystem to everyone's advantage, including yours
- **company**: items that truly differentiate you from the competition in a constructive way

Think like a (f)uturist
who also must be a realist

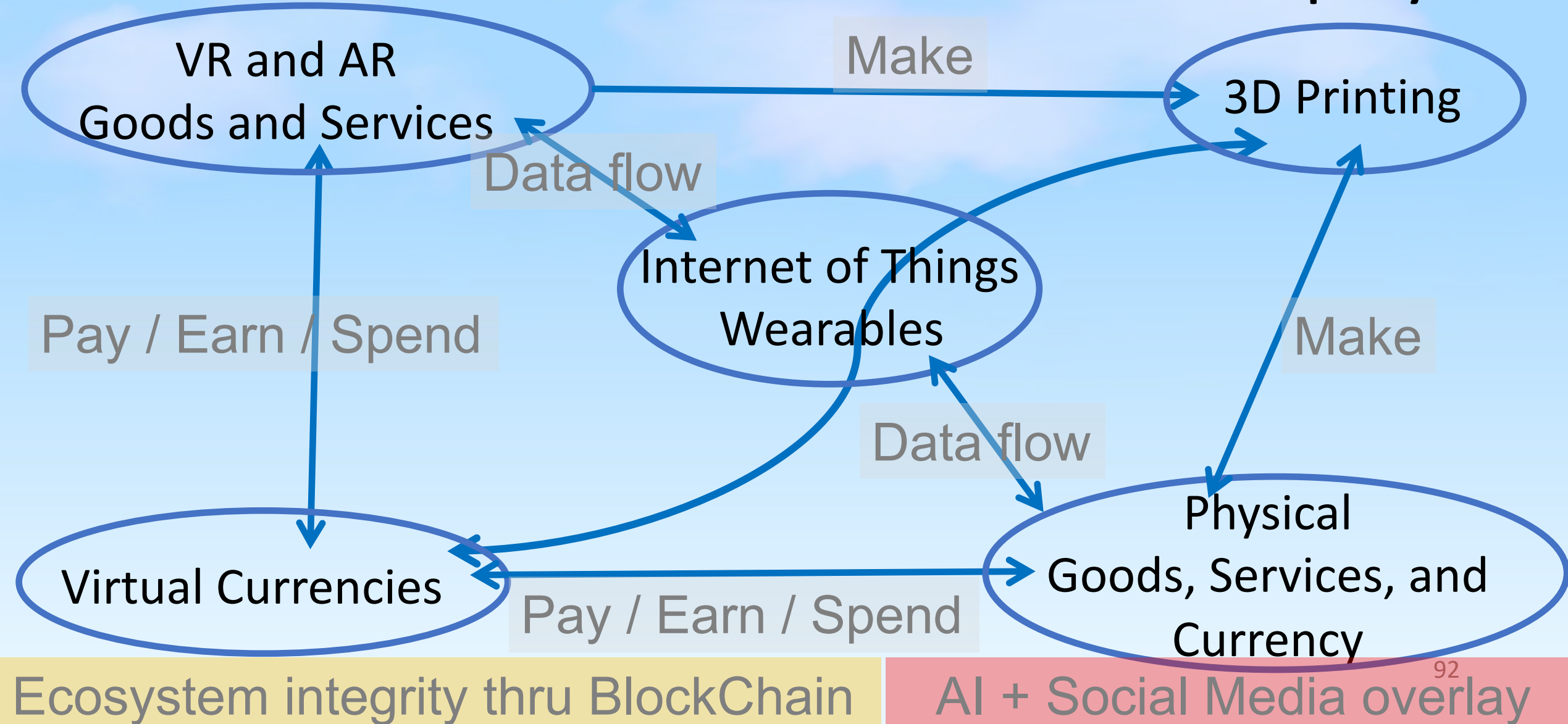


Think about:

Ethics

- (re)assess externalities within fiduciary responsibility
- ethics can impact revenue and ROI

Erasing the boundaries between real and virtual worlds of work and play

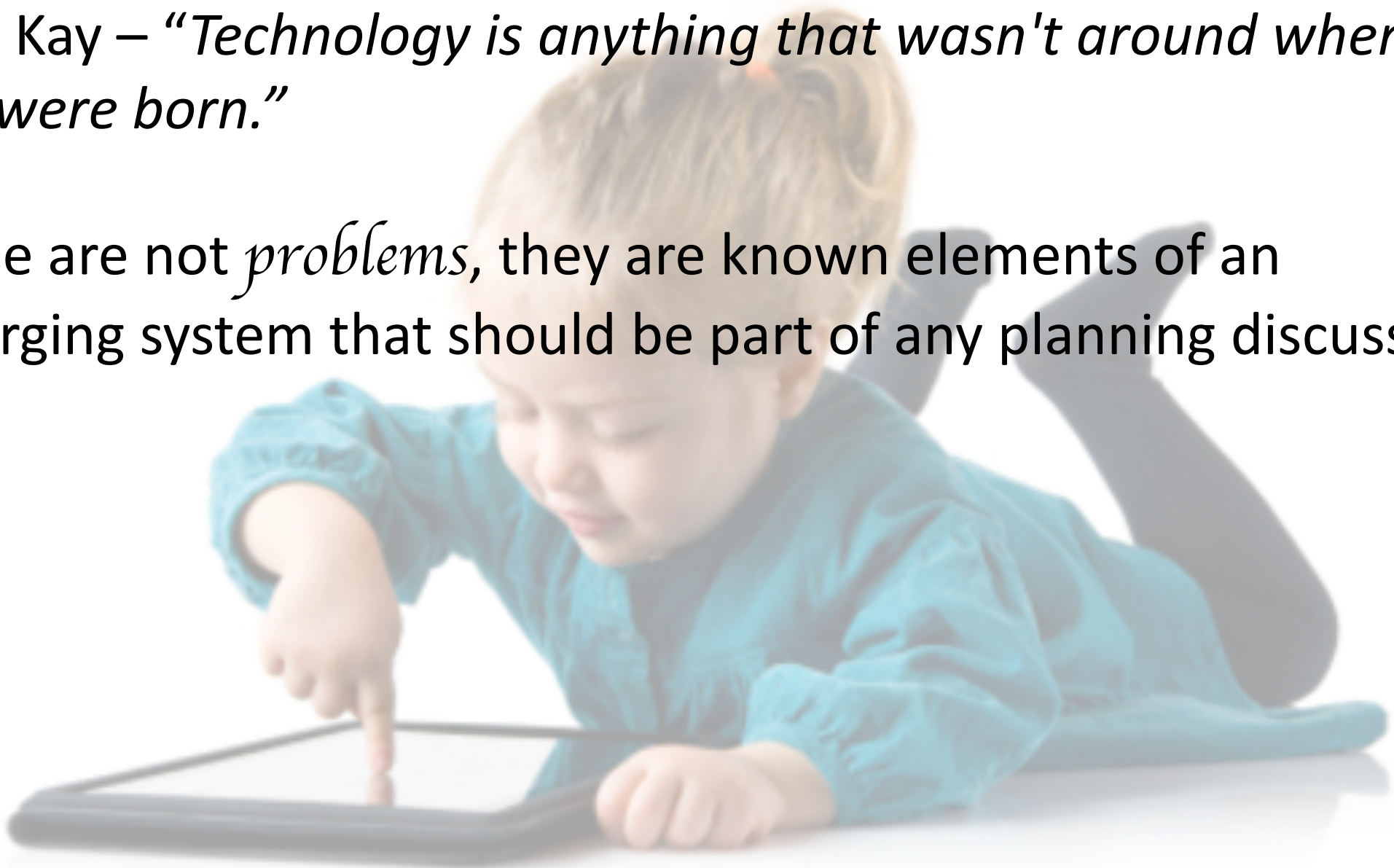


Alan Kay – *“Technology is anything that wasn't around when you were born.”*



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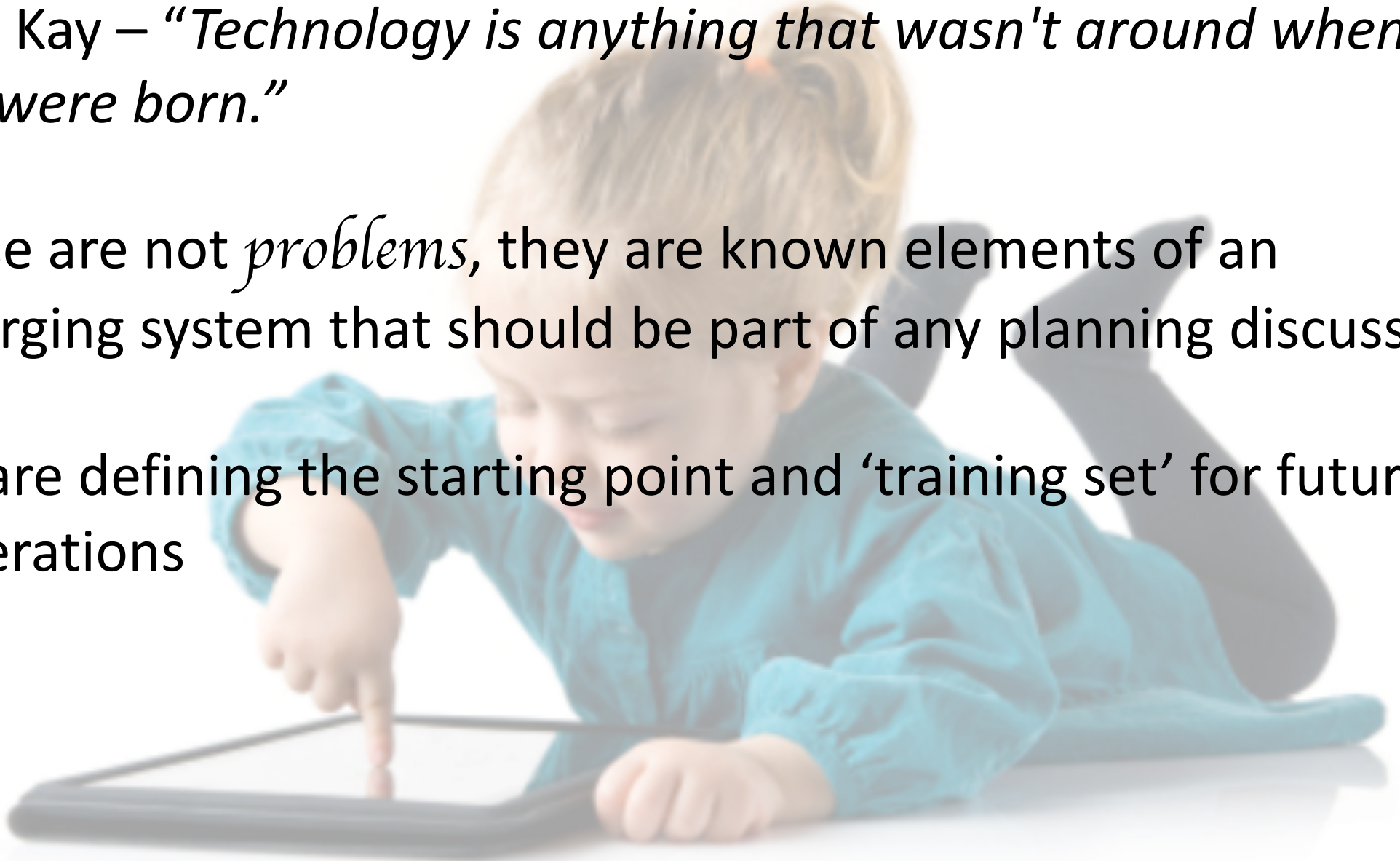
These are not *problems*, they are known elements of an emerging system that should be part of any planning discussion



Alan Kay – *“Technology is anything that wasn't around when you were born.”*

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We are defining the starting point and ‘training set’ for future generations





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These are not *problems*, they are known elements of an emerging system that should be part of any planning discussion

We are defining the starting point and ‘training set’ for future generations

Let’s add these issues to the discussion now, to shape **a future that we want** while resistance to new ideas and to change is low

Thank you



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