

# MIT IDE

## Platforms: Review & Outlook

Peter C. Evans (Platform Strategy Partners)  
Geoffrey Parker (Dartmouth & MIT)  
Pinar Ozcan (University of Oxford)  
Marshall Van Alstyne (Boston University & MIT)



MIT PLATFORM  
STRATEGY SUMMIT

2021

MIT INITIATIVE ON  
THE DIGITAL ECONOMY

**MIT IDE**

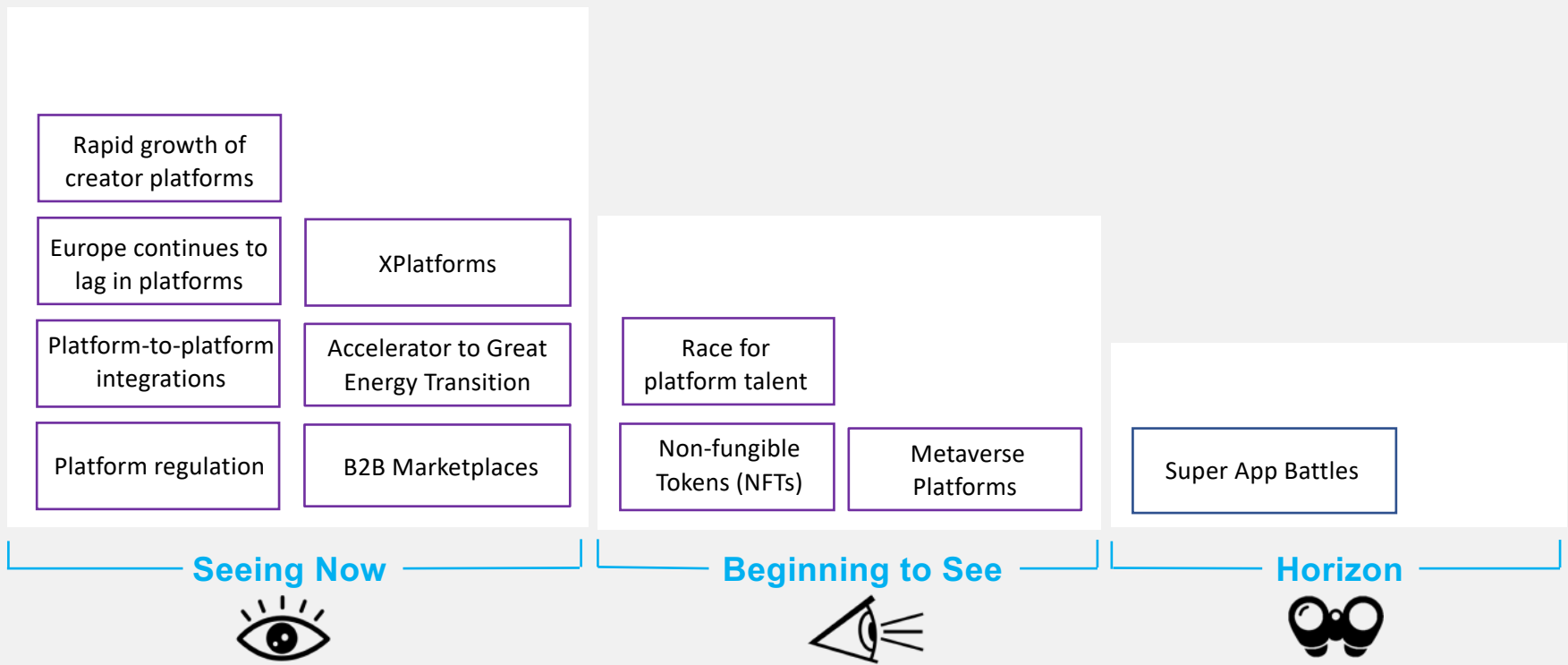
# **Platforms: Review & Outlook**



**Peter C. Evans**  
Platform Strategy Institute



# Platform Trends to Watch



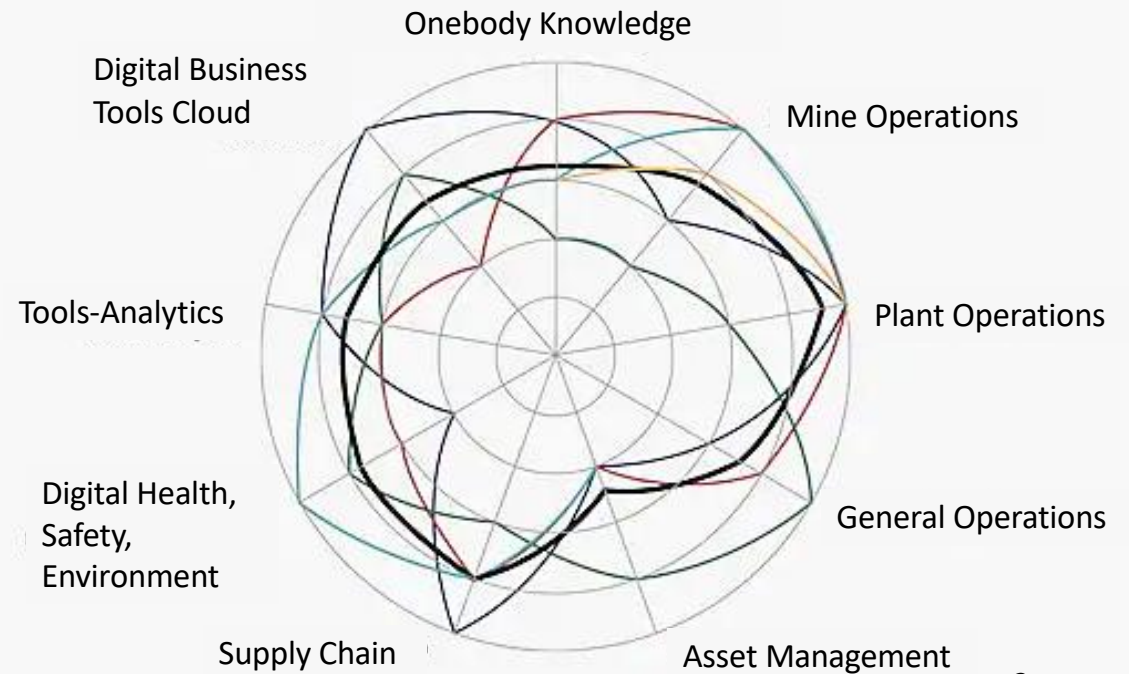
Source: Platform Strategy Institute, 2021



# Industrial adjacency plays via platforms



Shell and IBM combined strengths to create the first B2B marketplace for the mining sector [Oren marketplace](#) that provides co-selling and ecosystem partnerships for mining solutions.



... TikTok moves to serve businesses with creators



TikTok has taken the world by storm with more than 1.5 billion downloads on the App Store and Google Play and more than 500 million active monthly users. The largest demographic of TikTok users is between the ages of 16 and 24 but that is now changing with other age groups now engaging on the platform.

### **TikTok for Business**

---

**#1: Create Your Own Content on TikTok**

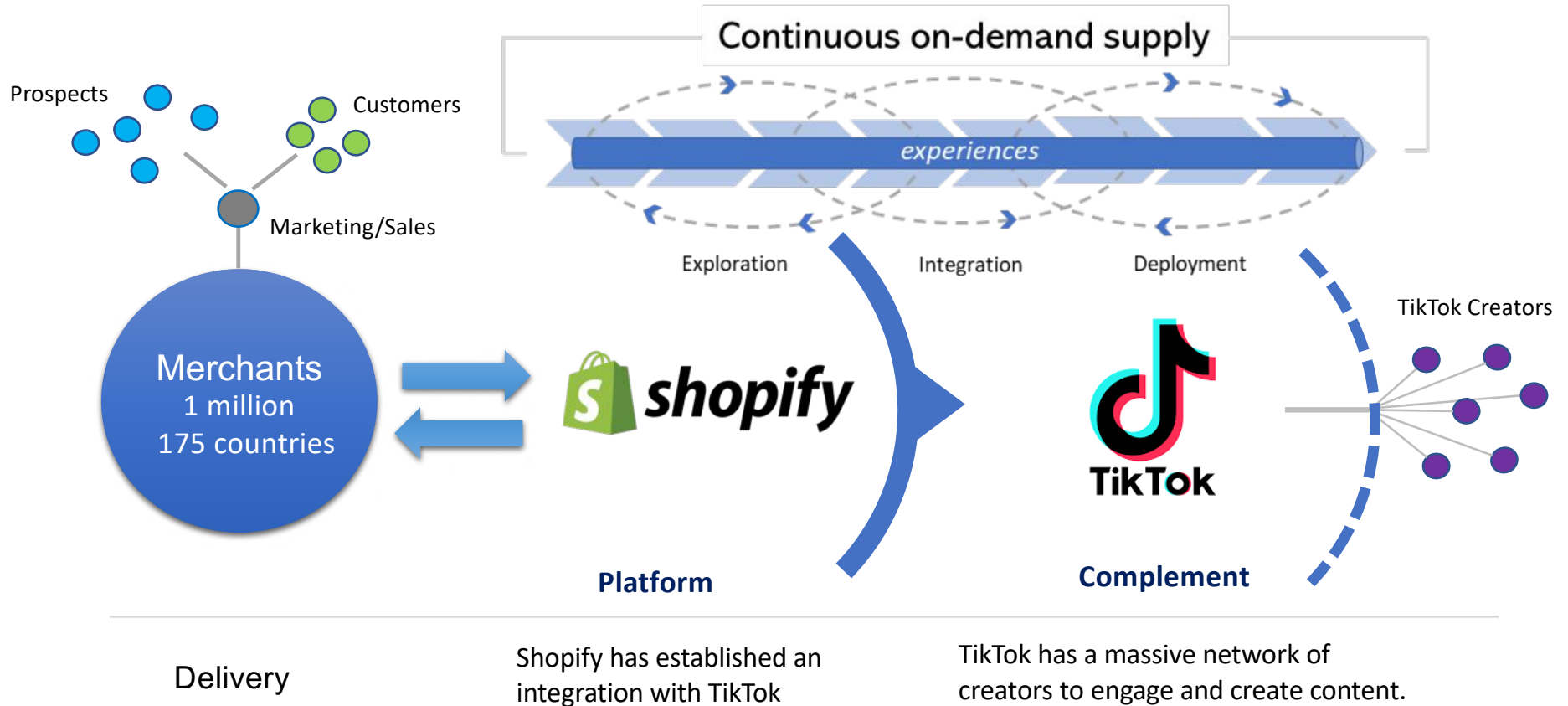
**#2: Curate and Share User-Generated Content on TikTok**

**#3: Advertise on TikTok**

**#4: Influencer-generated Content**

Source: <https://www.socialmediaexaminer.com/4-ways-to-use-tiktok-business/>

# Platform-to-Platform integrations – scale with personalization



Delivery

Shopify has established an integration with TikTok

TikTok has a massive network of creators to engage and create content.



Source: Platform Strategy Institute, 2021

# Amazon is rapidly adding experiences to its platform



## amazon live

### Live Now

<b>Now Watching</b> Morning PC Tech Talk LeeHofLand	<b>WEEKLY DEALS</b> Saturday Morning Deals Kristi Davis	<b>GRWM Minimal Mom Makeup</b> The Parent Game May 28, 11:05AM	<b>LIVE WITH ANCA</b> Today's Best Deals! Gracefully Glam	<b>1 DREAM HOME STUDIO</b> AWALLSHOP	<b>COOL AMAZON FINDS</b> Deals and Finds! Best of Amazon Purvis TV
---	---	--	---	---	--

### Early Prime Day Deals

<b>PRIME DAY DEALS!</b> Prime Day Placeholder CelloTipTV Jun 1, 10:00PM	<b>TODAY'S DEALS</b> Shop the latest deals Amazon Live Deals Jun 2, 10:00AM	<b>EXCLUSIVE PRIME DAY LEAD UP DEALS WITH FERRICORE</b> BEAUTYBYCARLA Jun 2, 6:00PM	<b>TODAY'S DEALS</b> Shop the latest deals Amazon Live Deals Jun 3, 10:00AM	<b>AMAZON LIVE AMAZING DEALS!</b> Amazing Deals June 2021 + Skincare AprilMithras7 Jun 3, 2:30PM	<b>TODAY'S DEALS</b> Today's Deals Amazon Live Deals Jun 4, 10:00AM
--	--	---	--	---	--

### Featured Creators

<b>CRIGS</b> New iPad Pro Unboxing and Setup Craig's Tech Talk May 28, 12:11PM	<b>My June Favorites</b> Let's talk summer deals! Life With Cam May 28, 8:00AM	<b>20 MIND BLOWING &amp; INNOVATIVE PRODUCTS YOU</b> 20 Mind Blowing & Innovative Products You Shea Whitney May 27, 6:07PM	<b>TODAY'S BIGGEST DEALS!</b> TOP TECH DEALS ON AMAZON! The Desk Guy May 27, 5:50PM	<b>Beauty Haul Live with Hannah Ann Sluss</b> Beauty Haul Live with Hannah Ann Sluss Hannah Ann May 26, 5:00PM	<b>At Home Cooking with Nick DiGiovanni</b> At Home Cooking with Nick DiGiovanni Amazon Live May 26, 2:00PM
---	---	---	--	---	--

## amazon explore

### Discover new places. Shop local items.

Prime Members, try your first live virtual experience up to \$50 for FREE with code FREEFUN  
[Learn more >](#)



### Most popular experiences

<b>Mysterious Madrid: legends and tales of the Spanish Inquisition</b> Vespene \$69 <sup>99</sup> 12 60 min session	<b>The colorful La Boca, its conventillos and the beginnings of Tango Signature Tours</b> Vespene \$74 <sup>99</sup> 14 60 min session	<b>Discover mysterious secrets of medieval Italian churches in Naples</b> TourHQ \$49 <sup>99</sup> 3 45 min session	<b>Rickshaw tour through Tokyo's Asakusa: virtually upgraded Edo-style</b> Vespene \$19 <sup>99</sup> 41 20 min session	<b>Mysteries, monsters and magic: explore Edinburgh's unusual tale</b> Vespene \$69 <sup>99</sup> 28 60 min session
--	---	---	--	--

### New experiences this week

<b>The best of Paris: Notre Dame, the stunning river Seine, and more Secret Tours</b> TourHQ \$99 <sup>99</sup> 45 45 min session	<b>Chilling in Patagonia: explore Argentina's legendary Perito Moreno Glacier Signature Tours</b> Vespene \$85 <sup>99</sup> 1 33 min session	<b>Welcome to the Lion City: explore basic history about Singapore and its most prominent lan...</b> Vespene \$24 <sup>99</sup> 1 30 min session	<b>Top secrets of Lyon: explore France at the time of the Renaissance</b> VoyageOn Travel \$85 <sup>99</sup> 1 60 min session	<b>Surprises in Salamanca, Spain: discover the history of a frog and an astronaut through Ren...</b> Vespene \$49 <sup>99</sup> 1 60 min session
--	--	---	--	---

### Virtual date ideas

<b>Explore the historic city center of Naples, Italy</b> TourHQ \$49 <sup>99</sup> 3 45 min session	<b>Peruvian Pisco: a virtual cocktail class</b> Intrepid Urban Adventures \$35 <sup>99</sup> 11 60 min session	<b>Ljubljana love stories: a virtual tour with romantic stories from Slovenia's capital</b> Intrepid Urban Adventures \$35 <sup>99</sup> 20 30 min session	<b>Munich: the city of Churches, palaces and beer gardens</b> Wander \$69 <sup>99</sup> 23 60 min session	<b>Visit the historical center of Florence</b> TourHQ \$10 <sup>99</sup> 4 60 min session
--	---	---	--	--



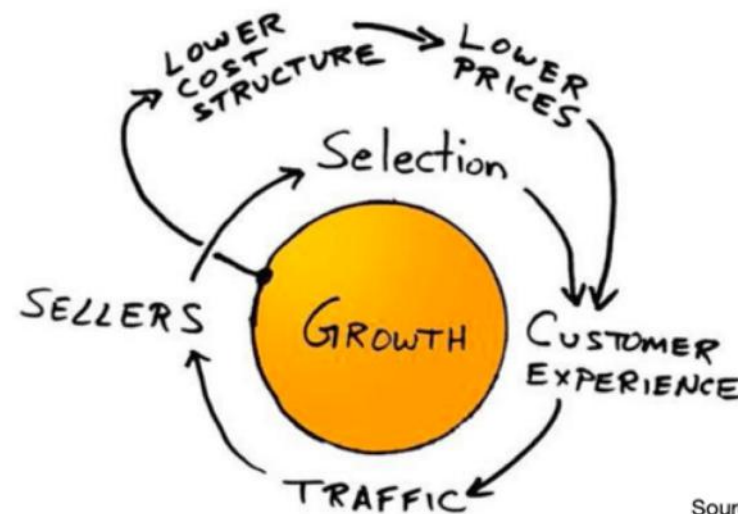
# Experiences drive new network effects



## Adding experiences to eCommerce

Amazon Live and Amazon Explore are new platforms that provide a diverse menu of live events and engagement points for sellers. These new platforms, introduced since 2019, add new opportunities for positive network effects that complement Amazon's existing powerful flywheel.

Year	Experience platforms
2019	
2020	



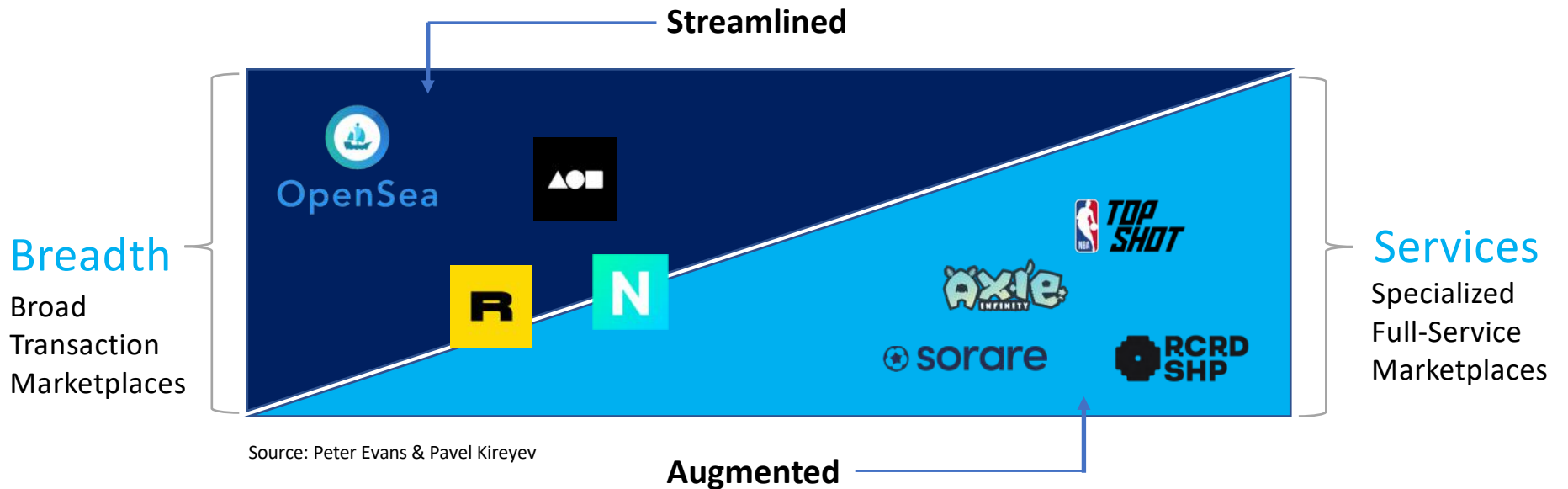
Source: Amazon



# Growth and structure of the emerging NFT industry

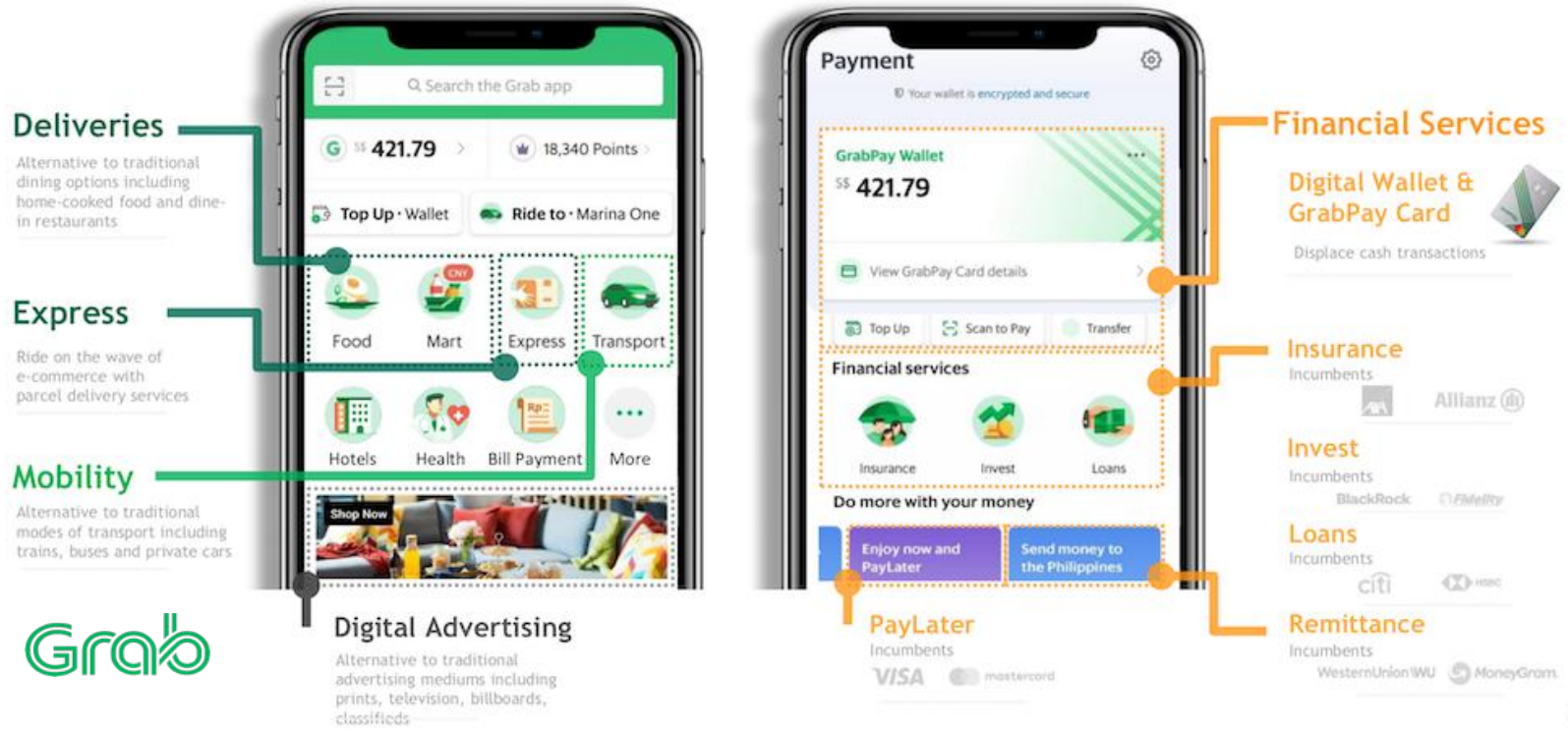


Blockchain innovation non-fungible tokens (NFTs) + marketplaces  
\$2.5 billion in NFTs sold in first half of 2021\*



\* NFT sales volume surges to \$2.5 bln in 2021 first half, Reuters, July 6, 2021.

# ... Rise of the Super Apps



# Could the Super App battle brewing in SE Asia go global?



Valuation	\$40 billion*	\$40 billion*	\$147 billion
Ride sharing	✓	✓	
Food delivery	✓	✓	✓
eCommerce	✓		✓
Streaming Entertainment	✓	✓	✓
Gaming			✓
Financial Services	✓	✓	✓

Source: Platform Strategy Institute, 2021



# 5 key platform trends to watch



Seeing Now



Beginning to See



Horizon

Industrial adjacency plays + platforms

Creator economy + platform integrations

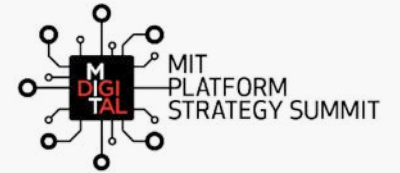
Experience economy + platforms

Blockchain innovation/ NFTs + platforms

Coming Super App Battles

**MIT IDE**

# **Platforms: Review & Outlook**



**Geoffrey Parker**  
**Dartmouth & MIT**



# Much of what we know about platforms comes from B2C

---

## B2C Examples

- eBay
- Apple iPhone
- Google Android
- Google Docs
- Twitter, Instagram, Facebook, etc.
- Airbnb
- Uber

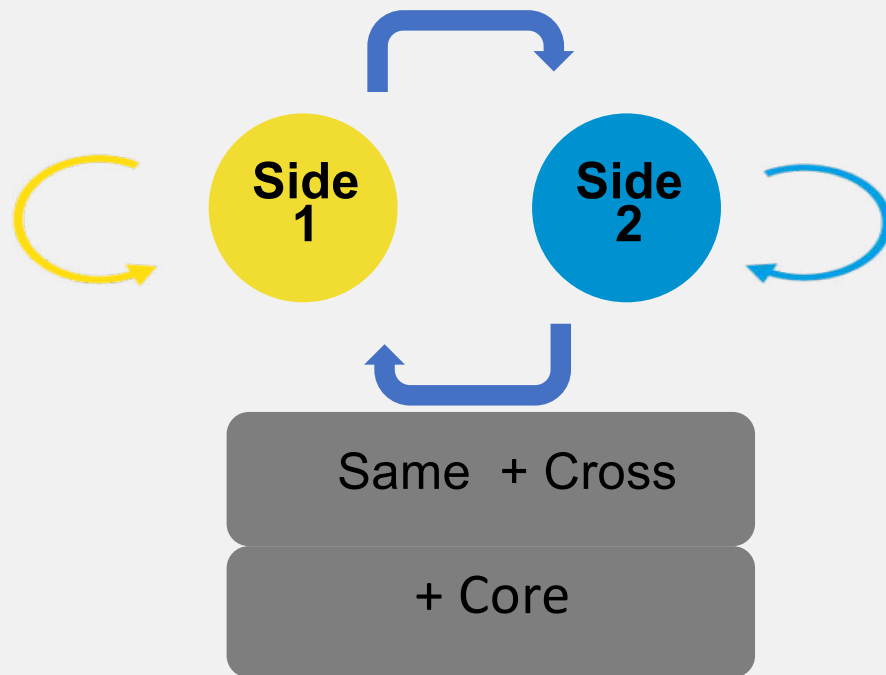
## B2B Examples

- Siemens Healthineers
- Salesforce
- Shopify
- HubSpot
- PTC
- Project44
- Sightmachine

# Examples where B2B does not equal B2C

- Customer Needs and Sales Cycles
- Pricing and Cost Sensitivity
- Marketing Approach
- Product Knowledge
- Trust
- Data Ownership
- Interaction frequency (B2B<B2C<M2M)

# Value Creation in Platforms



Where does value come from?

- Same-side Network and Collaboration Tools
- Cross-side Access (markets and ecosystems)
- Standalone from core



# BDI Database of B2B Platforms in Germany



## Types of digital B2B platforms

German digital B2B platforms can be divided into two categories: In addition to data-centric platforms, there are transaction-centric platforms. While the former focus on the analysis and processing of data and the generation of new insights into causal connection, the latter focus on increasing the efficiency of business processes (purchasing and sales, logistics, supply chain, and collaboration between market players).

- **Data-centric platforms**
- Industrial IoT
- Data (transaction)
  
- **Transaction-centric platforms**
- Marketplace
- Supply chain/logistics
- Networking

## Railigent

The Railigent platform helps owners and operators of trains and infrastructure to achieve added value. Railigent applications enable customers to increase the availability of their trains and infrastructure, improve maintenance and operations, and reduce costs. To this end, Railigent not only uses Siemens' own application and data analysis, but also integrates an ecosystem of partners to offer customers even greater added value.

### How does Railigent work?

Railigent is a cloud-based platform that can record, interpret, process and analyse large volumes of data from the railway environment. To this end, a variety of applications not only generate relevant insights (for example, that a door warrants attention), but also recommend actions for the customer. Railigent uses advanced, and in some cases proprietary methods of machine learning and artificial intelligence for this purpose. The data and these algorithms are also made available to the partners to enable them to create even more and better applications.

## bevazar

bevazar is the first independent online procurement platform for companies in the beverage industry, where small and medium-sized breweries and bottling plants can buy everything they need for their production. The product portfolio on bevazar includes not only ingredients, spare and wear parts, consumables or packaging, but also accessories, such as laboratory supplies. In addition, it also provides services, such as project management. With bevazar, both sellers and buyers save time, money and their nerves.

### How does bevazar work?

bevazar is the first independent online marketplace independent of manufacturers where suppliers and buyers can network. Suppliers can offer their products internationally, manage individual customer conditions and open up new customer segments quickly and easily. They have access to valuable customer and transaction data. Buyers can search, compare and purchase products. Algorithms that work with both text and image recognition are available for searches. Results are displayed based on preferences, search and order history. The platform also automates the ordering of recurring requirements and handles all payment transactions. In addition, bevazar supports the administration of, for example, certificates, as well as safety data sheets. As a portal with a clear focus on industry-specific requirements, bevazar is the central contact point for goods and services in the beverage industry.



# BDI Database of B2B Platforms: Coded Companies by Value Type



Company Name	Standalone	Same	Cross	BDI Classification	Based on/ Dev By
	Value	Value	Network Val		
13 Transporeon		✓✓		Supply Chain Management and Logistics	
14 testxchange			✓✓	Networking Platforms	
15 Manufacturing Integration Platform (MIP)	✓✓	✓	✓	IIoT	MPDV Microlab
16 SAP Cloud Platform	✓✓		✓	Data(transaction)	
17 bevazar		✓✓	✓	Marketplaces, Retail and MU Platforms	
18 Fashion Cloud			✓✓	Marketplaces, Retail and MU Platforms	
19 myCompetence.de		✓	✓✓	Marketplaces, Retail and MU Platforms	
20 Facturee			✓✓	Marketplaces, Retail and MU Platforms	ewmk
21 Spanflug			✓✓	Marketplaces, Retail and MU Platforms	
22 Bosch IoT Suite	✓		✓✓	Networking Platforms	Eclipse IoT Working Group
23 IT2 match		✓✓		Networking Platforms	
24 RailSupply		✓✓	✓	Supply Chain Management and Logistics	
25 ADAMOS Hub		✓	✓✓	Data(transaction)	
26 AX4		✓✓	✓	Supply Chain Management and Logistics	Siemens Digital Logistics
27 AVIATION DataHub		✓✓		Data(transaction)	
28 ABB Ability-technology Platform	✓✓			IIoT	Microsoft Azure
29 UP42	✓✓		✓	Data(transaction)	
30 teamplay digital health platform	✓✓			Data(transaction)	
31 Zentrale Healthcare Plattform ZHP.X3		✓✓		Networking Platforms	
32 Share2Act	✓✓	✓		IIoT	Krones SYSCRON
33 Sparrow		✓✓		Networking Platforms	
34 MobiMedia		✓✓		Marketplaces, Retail and MU Platforms	
35 myOpenFactory EDI platform		✓✓		Networking Platforms	
36 OneTwoChem		✓✓		Marketplaces, Retail and MU Platforms	Evonik Digital
37 Coats eComm		✓✓		Marketplaces, Retail and MU Platforms	coats.com
38 empto			✓✓	Networking Platforms	
39 the@vanced	✓✓			IIoT	
40 Saloodo!		✓✓		Supply Chain Management and Logistics	
41 Tapio			✓✓	Networking Platforms	
42 Asset Intelligence Network	✓		✓✓	Networking Platforms	SAAP AIN
43 Certif-ID		✓✓		Networking Platforms	
44 Shüttflix			✓✓	Marketplaces, Retail and MU Platforms	
45 Unite			✓✓	Networking Platforms	HMM Germany
46 scrappel			✓✓	Marketplaces, Retail and MU Platforms	

Marketplaces =>

Supply Chain Mgmt =>

Networking Type 1 =>

Networking Type 2 =>





## Global Future Council on Advanced Manufacturing and Production

Data from interviews with executives and member organizations of the council

Perspectives on Operating and Business Models

Accelerating business Model Innovation

Industry Transformation at Scale

### Latest publications

[Winning the Race for Survival: How New Manufacturing Technologies are Driving Business-Model Innovation \(2020\)](#)

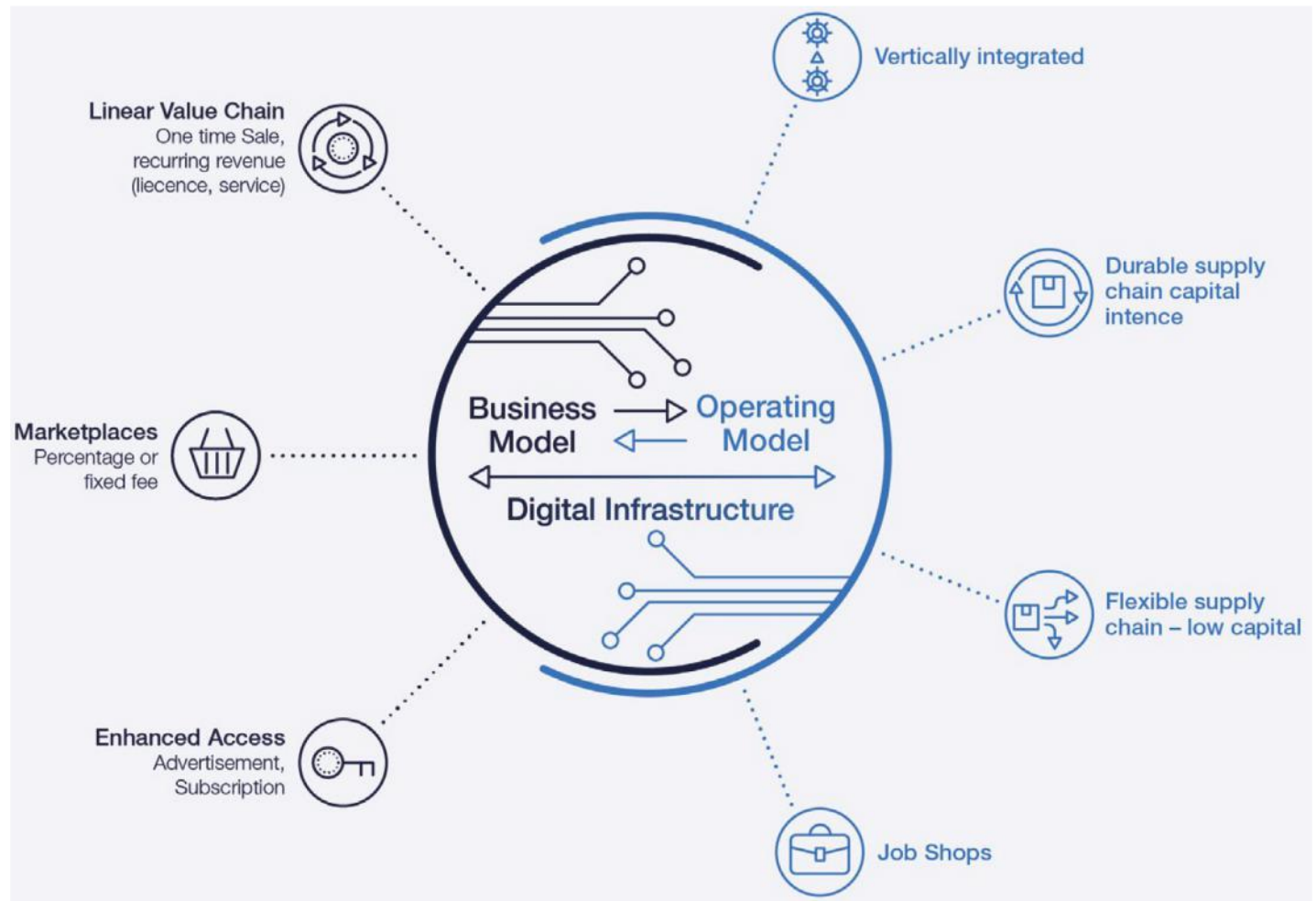
[A Global Standard for Lifelong Learning and Worker Engagement to Support Advanced Manufacturing](#)

[Supply Chain Collaboration through Advanced Manufacturing Technologies](#)



# 2020 business model and operating model changes

<https://www.weforum.org/reports/towards-a-new-normal-new-design-rules-for-advanced-manufacturing-business-models#report-nav>

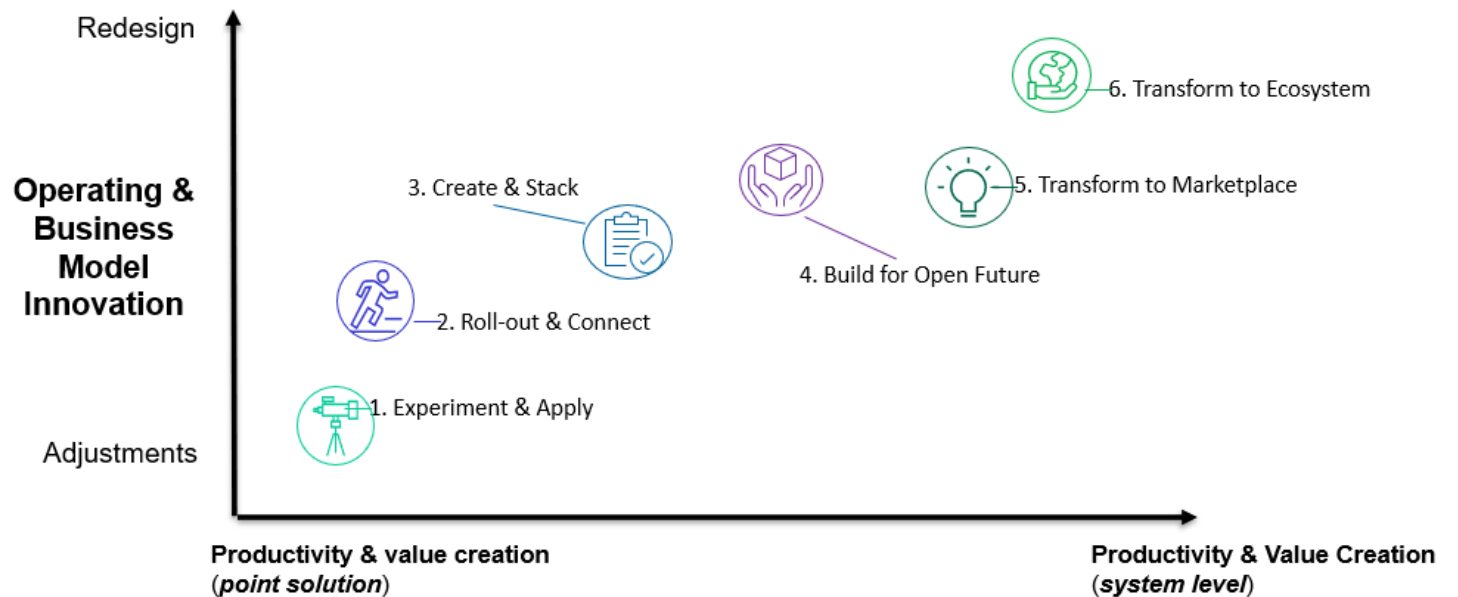


Nitin Joglekar, Geoffrey Parker, Jag Srani

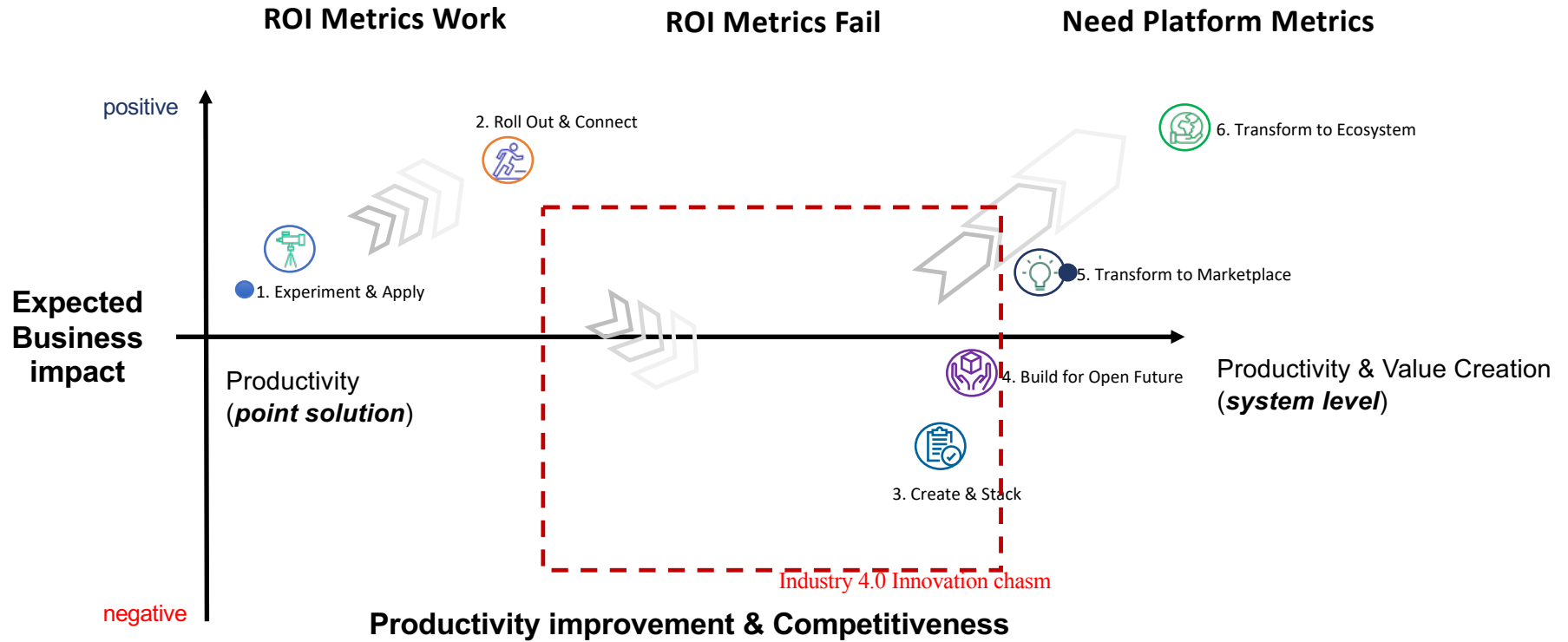
# Broad Digital Transformation Archetypes

## Pathways - quick wins, capability development, and business model innovation

1. EXPERIMENT & APPLY
2. ROLL OUT & CONNECT
3. CREATE & STACK
4. BUILD FOR OPEN FUTURE
5. TRANSFORM TO MARKET-PLACE
6. TRANSFORM TO ECOSYSTEM



# Need different metrics for each type of investments



**Will also need additional organizational capabilities**



# Takeaways

- B2B platforms differ from B2C in some important ways
- Fundamental economics of value creation help us understand different systems
- Technology initiatives differ along dimensions of business model and operating model changes required
- Technology initiatives can be categorized by the number and type of actors involved
- Infrastructure investments can exhibit “worse before better” impacts
- Need to match metrics to type of initiative

**MIT IDE**

# **Platforms: Review & Outlook**

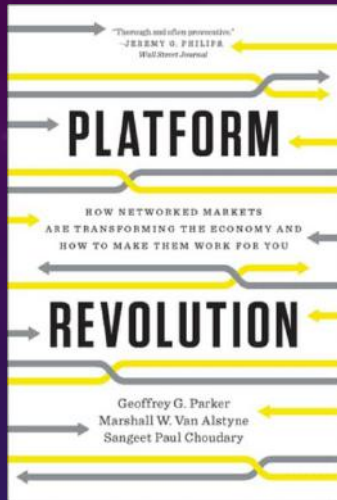


**Pinar Ozcan**  
**Saïd Business School**  
**Oxford University**





# Platforms have avoided highly Regulated markets



**In *Platform Revolution*, Parker et al (2016) give anecdotal evidence:**

‘many of the most important aspects of our economy, our society and our lives – education and government, healthcare and finance, energy and manufacturing – appear largely unaffected by the rise of the platform’

(p. 261)

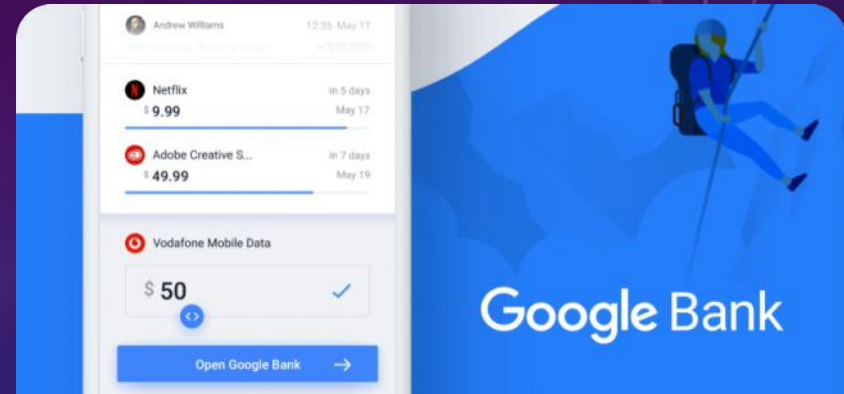


**Highly regulated industries may experience a delay / lack of platform entry due to:**

regulators favouring incumbents, locking industry against start-ups trying to offer new sources of value

# NOT ANYMORE...

- Signs of disruption in healthcare, education, finance...



A close-up photograph of a person's hands in a dark suit jacket. The right hand is holding a white credit card with a black magnetic stripe and a colorful pattern. The left hand is positioned over a laptop keyboard. The background is blurred, showing a white surface.

LET'S LOOK AT FINANCE...

How do we access our financial data?

A solid orange horizontal bar spanning the width of the slide.

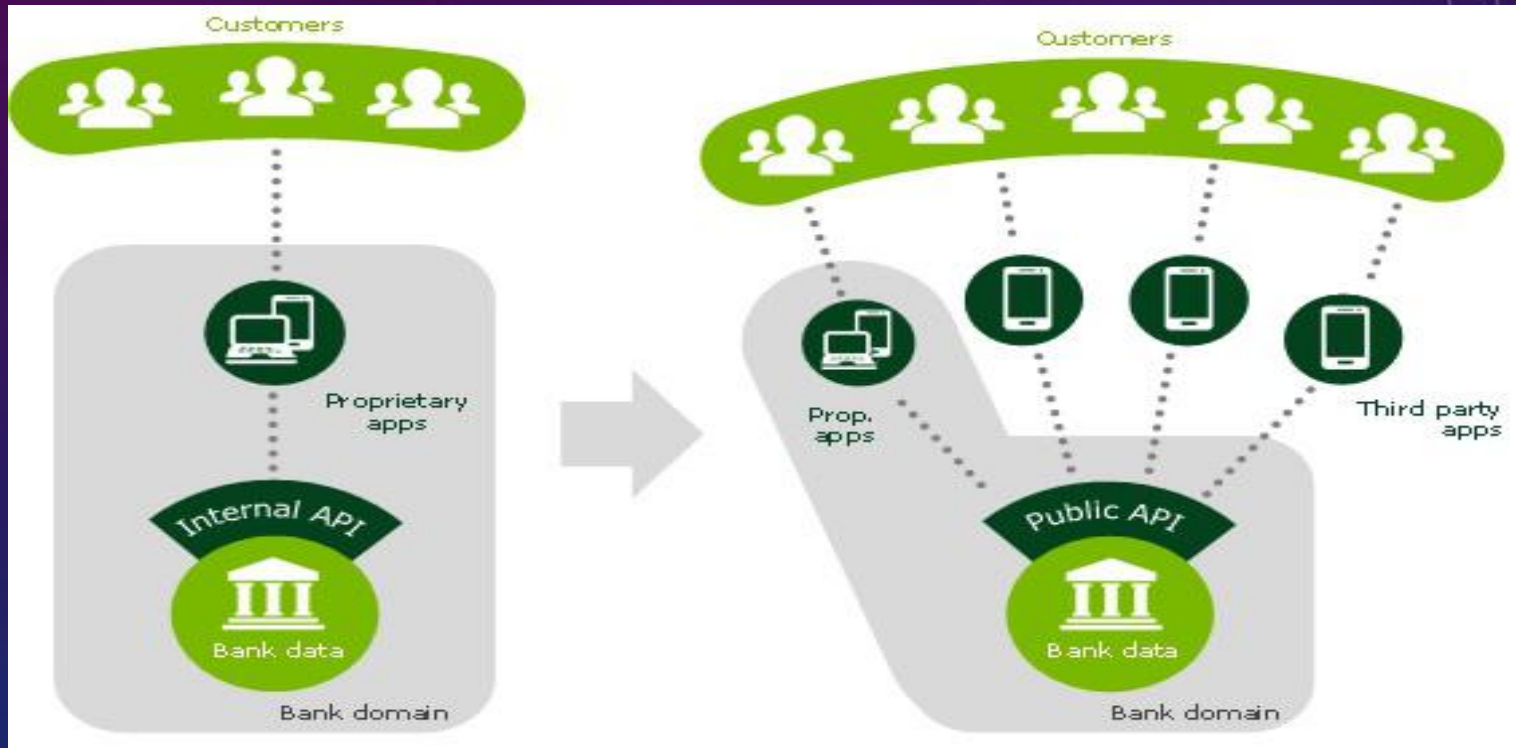
Are WE the owner of that data?



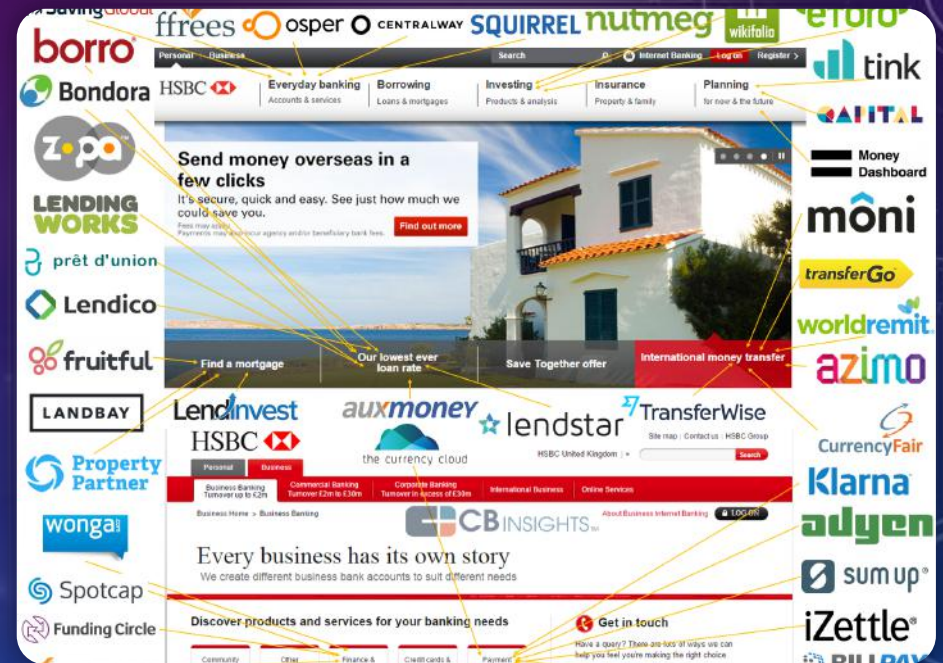
*"No, it's MY data!"*

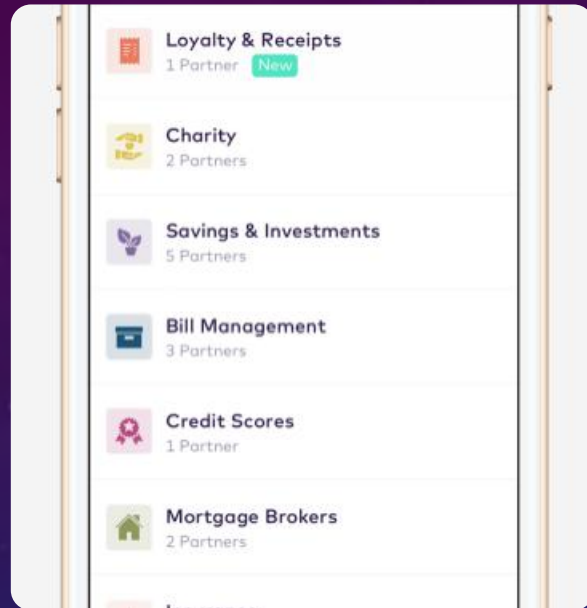
A small, stylized signature or logo consisting of a few simple lines, possibly representing the artist's initials.

# Open banking REGULATIONS for financial data sharing



# RISE OF Single service fintechs





Sectoral Platforms rising in finance

Growth through  
Complementors

High

### Entrepreneurial Entrants



Cheaper, more user-  
friendly services



Customer Trust  
System Resilience  
Intl Growth

### New Entrants w/ Existing Platforms (Amazon, Apple, Facebook, Google)



Trusted Brand  
Resources  
Cheaper, more user-  
friendly services



Fast Market Entry  
(Abundance of  
Complementors)

### Incumbents



Trusted Brand  
Resources for Tech  
Intl and Reg Experience



IT Silos  
Cultural Silos  
Reg. Unevenness

Low

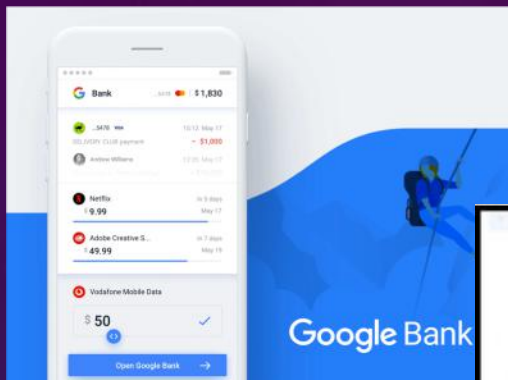
Low

High

Growth through  
Platform Users

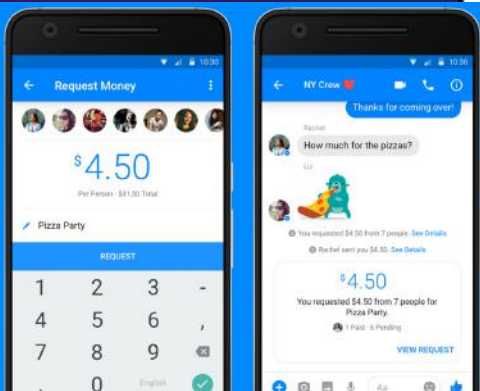


# Tech Giants in finance: 'Platform-as-a-Bank'



The image shows the Amazon Lending interface. It features the Amazon Lending logo and the text 'Take your business to new heights with Amazon Lending'. Below this, it says 'Congratulations!' and provides details about a loan invitation based on recent performance on Amazon. The interface includes a 'Loan Request Amount' of \$3,000 and a 'Payment Term' of 6 Months. A 'Loan Summary' table is also visible.

Loan Summary	
Interest (6.90% annual rate)	\$6
Net Loan Proceeds	\$3
Total of Payments	\$3,06
Monthly Payment	\$51
Total Cost (2.02%)	\$6



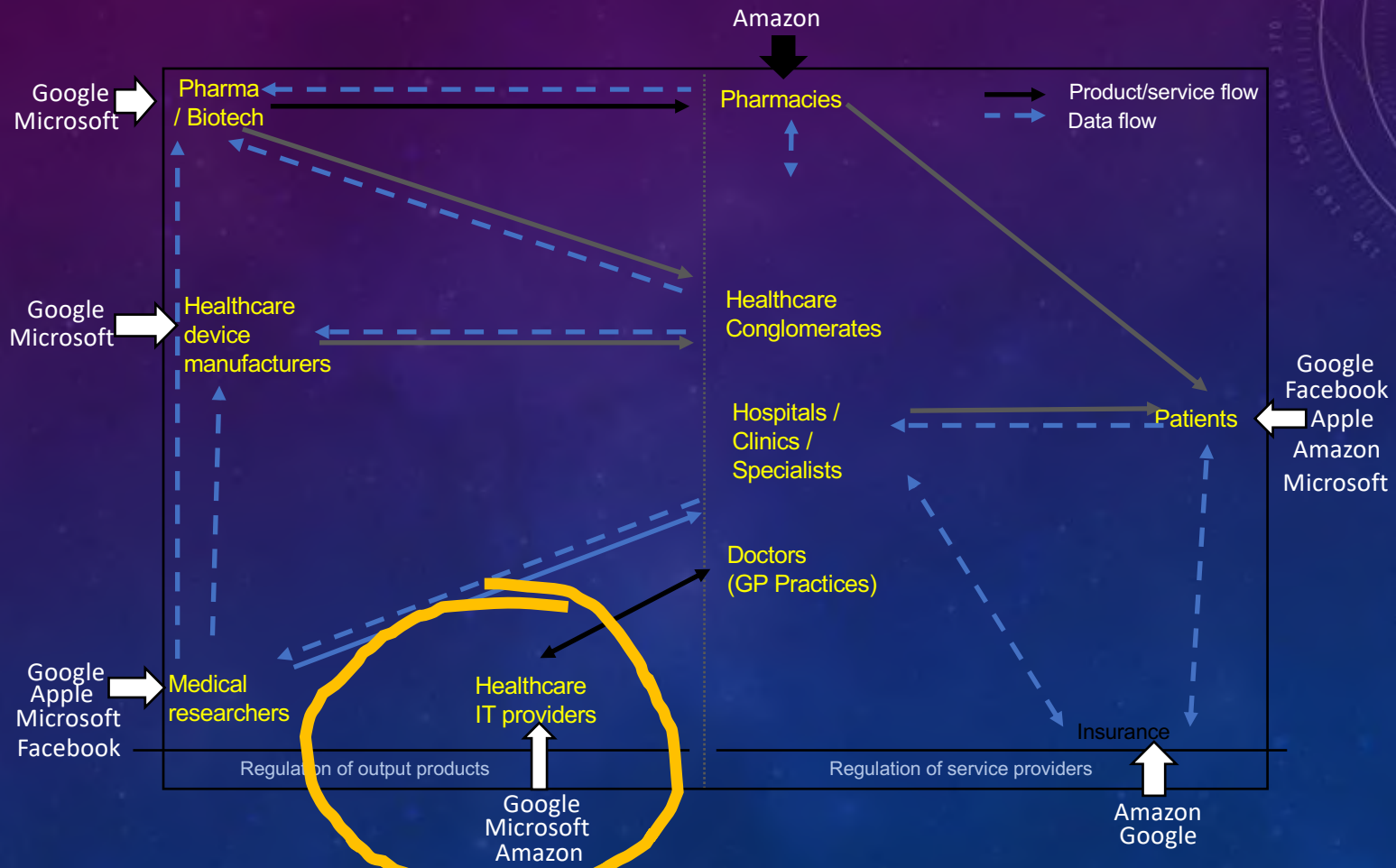


With Covid, AI is changing industries even faster...

industries are 'colonized' by digital platforms

partnering with big tech will be unavoidable...

# 'digital COLONIZaTion' of THE HEALTH SECTOR



Thank you



[profpinar@gmail.com](mailto:profpinar@gmail.com)

**MIT IDE**

# **Platforms: Review & Outlook**



**Marshall Van Alstyne  
Boston University & MIT**





# Hipster Antitrust – New Brandeis (Std Oil)



Lina Khan  
FTC Chair



Tim Wu – Special  
Assistant to Pres for Tech

Challenge consumer welfare antitrust standard focused on prices – most platforms are free! – on basis of harms to innovation and competition

# Recent Legislation



## • Access Act (Scanlon)

- To promote competition, lower entry barriers, and reduce switching costs for consumers and businesses online.



## • American Innovation & Choice Act (Cicilline)

- To provide that certain discriminatory conduct by covered platforms shall be unlawful



## • Ending Platform Monopolies (Jayapal)

- To promote competition and economic opportunity in digital markets by eliminating the conflicts of interest that arise from dominant online platforms' concurrent ownership



## • Merger Filing Fee Modernization (Neguse)

- To promote antitrust enforcement and protect competition through adjusting premerger filing fees, and increasing antitrust enforcement resources



## • Platform Competition & Opportunity Act (Jeffries)

- To promote competition and economic opportunity in digital markets by establishing that certain acquisitions by dominant online platforms are unlawful



# EU & US Approaches (China too)

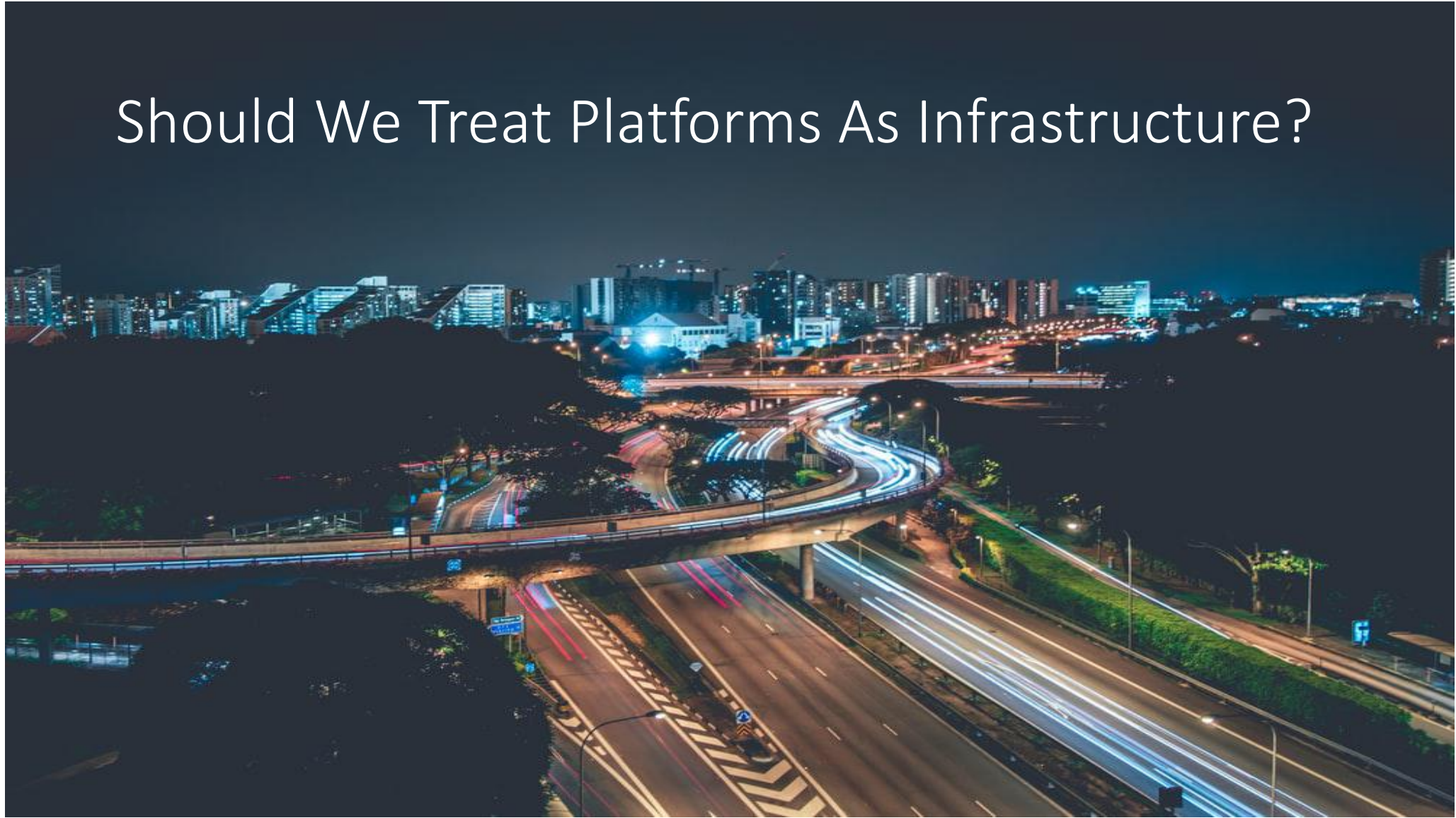
## Bad Ideas

- Break-up
  - Doesn't address network effects
- Prohibition on Merged Data
  - Forbids value creation on nonrival asset
- Prohibition on entering adjacent markets
  - Forbids certain efficiency gains
- Prohibition on selling in own market
  - Forbids certain efficiency gains

## Good Ideas

- Prohibit self-preferencing
  - Equal access ensures fairness & efficiency
- Interoperability
  - Enables joint use of nonrival assets
- Data Portability – biz like consumer
  - < yes / no >
  - In Situ is better
- Competing Governance Models
  - Enables value creation *and* competition

# Should We Treat Platforms As Infrastructure?



# Problems of Data Portability

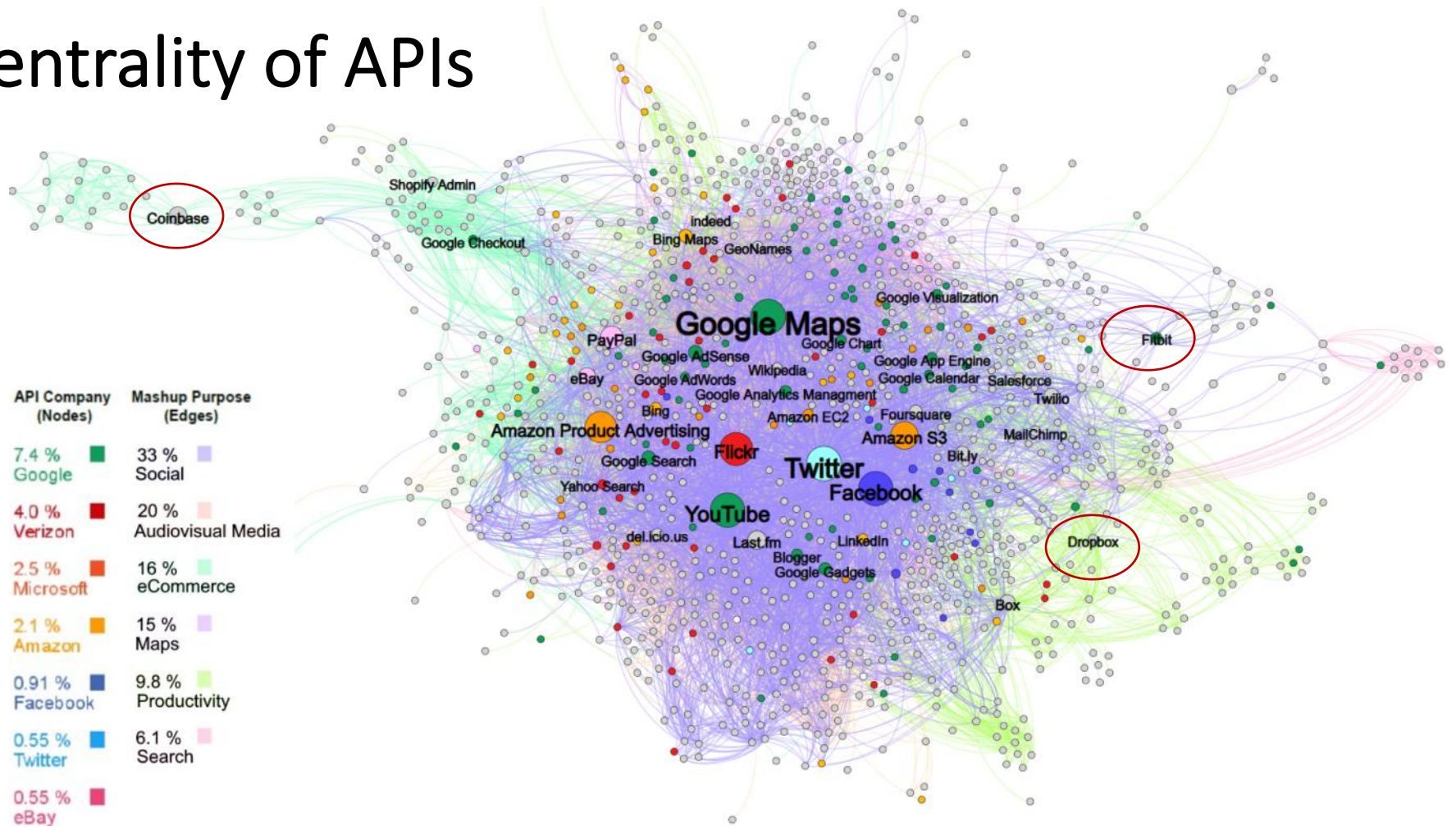
## Data Portability

- Porting data removes context. Your response to someone else's post or their response to yours is lost. Platform keeps *their* data (Berlind 2018).
- Data decays. A 1x transfer represents a depreciating stock of information.
- Data removed from context is not actionable. Cannot *share* a benefit with friends. Cannot *receive* them either.
- Moral Hazard: Stores can selectively present their 1 and 2 star reviews

## In-Situ Access

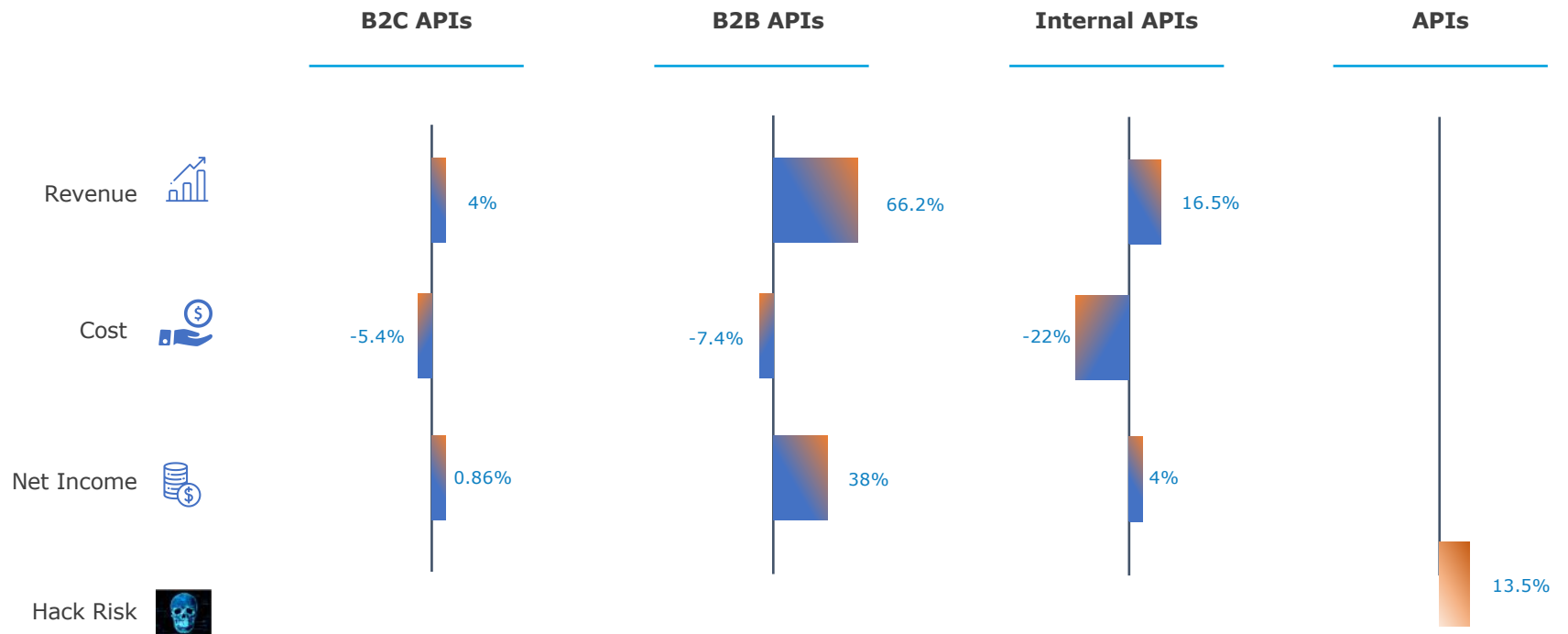
- All context is preserved. Data provided by friends and 3<sup>rd</sup> parties remains intact.
- Access *in situ* grants use of recent flows and updates as well as the stock.
- Can safely cut off 3<sup>rd</sup> parties (don't need to trust they deleted your data)
- Data in situ is actionable. Benefit can be shared across existing infrastructure.
- Full information is preserved. Risk assessment is more accurate

# Centrality of APIs

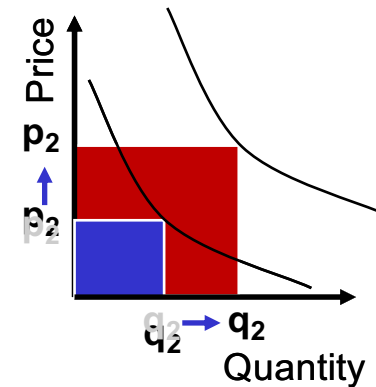
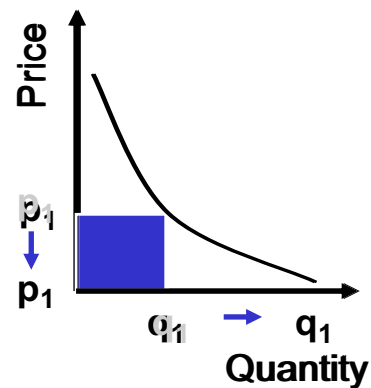


# RESEARCH FINDINGS:

Financial impact differs by type of API



How can we estimate CLV of a free customer or in network markets?



We can econometrically estimate CLV2 for a Free Customer or network value for other customers or total firm value based on customer equity

# New Research!

1) *In Situ Data Rights*: “Platform Mergers & Antitrust”  
(Parker, Petropoulos, Van Alstyne)

2) *APIs & Market Cap*: “Exposure vs Efficiency of APIs”  
(Benzell, Hersh Van Alstyne)[30 days]

3) *CLV2*: “How Users Drive Value in Two-Sided Markets”  
(Zhou, Zhang Van Alstyne)

<https://ide.mit.edu/publication-type/research-papers/>

# MIT IDE

## Platforms: Review & Outlook

Peter C. Evans (Platform Strategy Partners)  
Geoffrey Parker (Dartmouth & MIT)  
Pinar Yildirim (London Business School)  
Marshall Van Alstyne (Boston University & MIT)



MIT PLATFORM  
STRATEGY SUMMIT

2021

MIT INITIATIVE ON  
THE DIGITAL ECONOMY