



2018
PLATFORM
STRATEGY
SUMMIT

MIT INITIATIVE ON THE DIGITAL ECONOMY



Everywhere
there can be
a platform,
there will be
a platform.

04 2018 PLATFORM REVIEW AND FORECAST

06 DEMOCRATIZING TRAVEL

08 BLOCKCHAINS AND PLATFORMS

10 LESSONS IN CROWDSOURCING

12 PLATFORMS FOR OPPORTUNITY AND INCLUSION

14 SUMMIT SNAPSHOTS

16 DRIVING GROWTH IN MULTI-SIDED MARKETS

18 A BLUEPRINT FOR DIGITAL PLATFORMS

20 AI AND DATA-DRIVEN BUSINESS INNOVATION

22 ENTERTAINMENT MEETS PLATFORMS

24 HEALTHCARE PLATFORMS AND DIGITAL HEALTH

26 KEY THEMES



Alice Raia, VP of Digital Presence Technologies for Kaiser Permanente, talks about the keys to successful healthcare platforms.

Platform-centered markets are booming and business-to-business and business-to-consumer platforms, such as Amazon and Facebook, have become household names. Meanwhile, incumbent companies are racing to catch the wave.

There is a tremendous need to understand the economic, policy, and management sides of platforms—and to learn from visionaries on the leading edge, such as Airbnb, Uber, and Topcoder.

On July 13, more than 300 leading thinkers, executives, entrepreneurs, technologists, and visionaries descended on MIT's Media Lab for the sixth annual MIT Platform Strategy Summit. Hosted by the MIT Initiative on the Digital Economy (IDE) and sponsored by KPMG, the daylong event offered insights, experiences, and expectations for future direction.

Top-of-mind issues included the implications of artificial intelligence (AI) and machine learning (ML), blockchain-enabled technologies, data privacy, and emerging regulations.

In addition, attendees learned about emerging platform developments in the entertainment and healthcare markets, and discussed the heated competition for developer talent and the need for more inclusive and diverse hiring.



The MIT Platform Summit was launched in 2013 by Geoffrey Parker and Marshall Van Alstyne to explore the phenomenon of platforms in public and private organizations, and to better understand how to manage, govern, and regulate platforms. The Summit brings together thought leaders from industry and academia to share their experiences, engage in robust discussion, and to help chart a path forward for private and public-sector leaders who seek better understanding and more efficient regulation.



Summit co-chairs (from left) Geoffrey Parker, Peter Evans, and Marshall Van Alstyne served as panel moderators.

WELCOME

Platform Forecast

GEOFFREY PARKER Professor, Dartmouth, and MIT IDE Digital Fellow

MARSHALL VAN ALSTYNE Professor, Boston University

PETER EVANS Principal, KPMG

The Summit co-chairs outlined the rapidly changing market trends in platforms today and highlighted key milestones that platform companies have achieved during the past year. They also discussed the significant value of data in a world of platform dominance.

KEY THEMES

DATA IS A FUEL—AND SOMETIMES A FIRE—FOR PLATFORMS.

PLATFORM COMPANIES HAVE BECOME POWERFUL INNOVATION ENGINES.

REGULATION IS RESHAPING THE STRATEGIC PLATFORM LANDSCAPE.

EVERYWHERE THERE CAN BE A PLATFORM, THERE WILL BE A PLATFORM.

PLATFORMS ARE BECOMING AN INTEGRAL PART OF ECONOMIES WORLDWIDE.

TRENDS

REGULATIONS

A raft of new local, national, and international regulations is impacting platform companies and rippling into their planning strategies. Notably, the General Data Privacy Regulation (GDPR), introduced in May, expands the data rights of residents of the European Union. The regulations include broader rights to be informed, rights to data access, and the right to correct information and problems. Another set of EU regulations, the Payment Services Directive Second Edition (PSD2), requires EU banks to open their systems to licensed third parties so that consumers can access banking information from a variety of platforms, such as Facebook or Amazon.

TECH TALENT

As platforms proliferate, the battle for tech talent—particularly software developers and data scientists—continues to escalate and drive market consolidation. High-profile acquisitions, such as Microsoft buying GitHub, and Google scooping up Kaggle, are making headlines as ways to buy large pools of talent. Yet, minorities continue to be underrepresented in the technology industry and diversity is still an elusive goal.

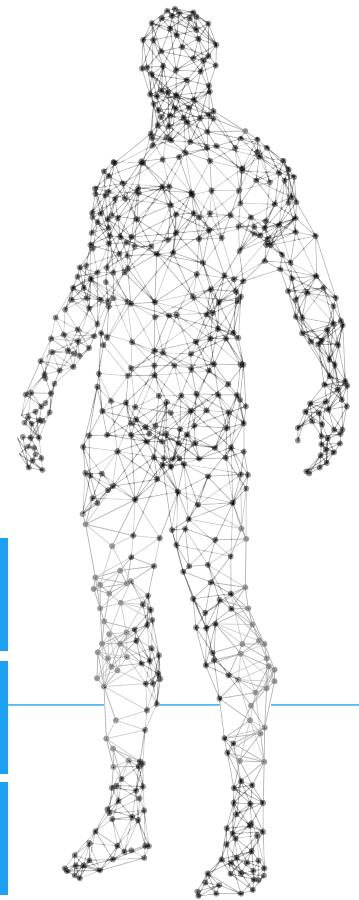
ECONOMIC IMPACT

Platforms are having a deflationary effect on the economy. Whether the service is cars (Uber) or spare bedrooms (Airbnb), platforms are improving operational and market efficiency by tapping spare capacity, but at the same time, they are lowering prices, to the delight of consumers.

INNOVATION, NEW OPPORTUNITIES

Digital platforms are creating new markets and new supply-chain models for technology products. For instance, it's estimated that nearly half of U. S. homes will have a smart speaker/voice technology system by 2022. Industry analysts project that the market could grow to \$18.3 billion in the next five years, with 870 million devices deployed globally. In addition to smart speakers, smartwatches and wearable electronics, as well as augmented and virtual reality systems, are on the rise.

As a result of this growth, intermediaries will be needed to become brokers between individuals' data and the platforms that want access to that data. Focused advertising services will also emerge along the way. It remains to be seen whether banks, utilities, big tech platforms, or some other entities will take on the role of the middleman to create value in these still-immature markets.



YOU

FOR

SALE

TYPES OF DATA FOR SALE

Browsing history	Purchase history
Age	Race
Religion	Education
Income	Homeowner status
Mortgage	Investments
Charitable donations	Political donations
Social media	Email + texts

POTENTIAL INTERMEDIARIES

Banks	Financial firms
Utilities	Posts
Big tech platforms	

ISSUES

Information asymmetry	Trust
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CASE STUDY

Democratizing Travel

PETER COLES Chief Economist, Airbnb

After eight years teaching at Harvard Business School, Peter Coles left academia for industry. He first served at eBay before joining Airbnb in 2015. Now the company's chief economist, Coles leads a team of data scientists and Ph.D. economists, that, as he describes it, "think about marketplace challenges."

3 TAKEAWAYS

MAKE INFORMED DECISIONS ACROSS THE ORGANIZATION VIA DATA ACCESS, DATA TOOLS, AND DATA EDUCATION.

AN INTERNAL DATA UNIVERSITY FOR MORE THAN 3,000 EMPLOYEES WILL TEACH AND SHARE DATA ANALYTICS AND OTHER SKILLS.

INVEST IN SKILLS DEVELOPMENT AND INFRASTRUCTURE SUPPORT TO GROW THE PLATFORM.



Airbnb lists more than 5 million homes in 81,000 cities and 191 countries.



It's important that data is available to everybody and that we have a single source of truth.

PETER COLES Chief Economist, Airbnb

As a platform, Airbnb has unlocked a new world of travel and economic opportunities for guests and hosts alike. The company is a perfect example of leveraging platform data as a corporate priority. Coles said that data analysis has revealed some surprising insights into how Airbnb is affecting the members of its community—from who is using the platform, to the opportunities that participation in Airbnb offers both hosts and guests.

THE POWER OF PLATFORMS + DATA

Coles noted that Airbnb is making it possible for more people to travel than ever before, at better prices, and to more destinations. These experiences all demonstrate the power of platforms.

“We not only provide the platform, we also manage payment, risk, customer service, and rating systems.” Hosts define pricing, house rules, and availability—and keep 97 percent of the list price. The company has worked hard to match people on the platform to create value. “We have more than 5 million listings on the platform. We’re in 81,000 cities around the world and 191 countries.”

Airbnb takes data extremely seriously and operates on the principle that every employee should be data-informed. There are three pillars to this principle: Data access, data tools, and data education. “It’s important that data is available to everybody and that we have a single source of truth.”

Airbnb stands behind this commitment with Data University, where employees, mostly data scientists, teach classes at all levels about data-informed decision making. At the higher end, there are even classes in causal inference, econometrics, and machine learning. Data analysis forms the backbone of many policies at Airbnb today.

Coles also noted that data analysis can upend long-held assumptions about platform users. For example, while men between the ages of 18 and 49 generally tend to be early adopters of new technology, this isn’t the case among Airbnb hosts. Approximately 55 percent of



Peter Coles describes Airbnb’s power in the platform economy.

hosts are women, and many best-rated hosts are senior citizens. Understanding the platform’s dynamics can uncover financial implications, too. Female Airbnb hosts around the world have earned nearly \$20 billion since the platform began. What’s more, 50,000 women claim that Airbnb has helped them launch entrepreneurial careers.

UNLOCKING VALUE

One of the areas where Airbnb’s platform can unlock a lot of value is by making use of under-utilized resources. In the United States, there are 12.8 million empty homes, which translates to even more empty bedrooms. Moreover, some 68 percent of hosts report that Airbnb has provided income to allow them to stay in their homes.

The company is expanding its reach beyond housing, too. For more than a year, it has offered Airbnb experiences, where instead of putting a home on the platform, someone can offer an experience that users might be interested in, such as a sushi class or a city tour. It is one more way that a platform not only connects buyers and sellers, but creates value and income in the on-demand economy.

PANEL

Blockchains and Platforms

JALAK JOBANPUTRA Founding Partner, Future\Perfect Ventures

GERHARD LOHMANN Chief Financial Officer of Reinsurance, Swiss Re

EAMONN MAGUIRE Global Lead, Financial Services, KPMG **MODERATOR**

KIRAN NAGARAJ Managing Director, KPMG

Blockchain may still be an emerging technology, but it's attracting intense interest from investors, established enterprises, and entrepreneurs—including those building and participating in platform markets. Panelists discussed technology's role as a transformational force among established industries and a disruptor of traditional markets.

3 TAKEAWAYS

BLOCKCHAIN MIGHT IMPROVE EFFICIENCY, SECURITY, AND TRANSPARENCY IN TRADITIONAL BUSINESSES.

BLOCKCHAIN CAN HELP REDUCE TRANSACTION FRICTION ACROSS PLATFORMS.

NEW REVENUE STREAMS, ESPECIALLY IN CAPITAL MARKETS ARE POSSIBLE; BLOCKCHAIN REPRESENTS A FORM OF PAYMENT AND AN EFFICIENT WAY TO TRANSFER VALUE.

Crypto represents a topline play for most financial firms.

Kiran Nagaraj





Jalak Jobanputra

Every 20 years or so we have a technology wave: blockchain is the next one, and it's much-needed. While web connectivity has spurred business efficiencies and new business models and platforms, it has also led to concerns about fraud and data security. Blockchain technology can address these points, but it may require revamped business models.

For example, a company we invested in called BitPesa is addressing the need for better banking services in many parts of Africa. Currently, it can cost up to 20% of a transaction to transfer money from, say, Uganda to Nigeria. Banks aren't reaching these individuals, or it's just too expensive for individuals and businesses to participate. By using the Bitcoin, blockchain fees drop to 3%. New types of banking institutions are taking advantage of the technology to address these emerging markets.



Eamonn Maguire

When blockchain originated—and it originated with Bitcoin—many proponents had a radical agenda, which was to disintermediate incumbents and remove those entities that have responsibility for creating trust, such as financial services firms and central banks.

But blockchain is taking on many roles today: it helps incumbents by delivering more effective business models and it drives down price points for consumers. The greatest risk is not getting in the game and sitting on the sidelines observing (the adoption of blockchain). Even if your business will not be disrupted, at the very least, the competition will be transforming, creating different price points and securing different market shares.



Gerhard Lohmann

Blockchain technology holds significant disruptive potential in the insurance industry. We transfer risk on a worldwide basis, but the processes we use are costly, sequential, and they suffer from bad documentation. As a result, a lot of risk is not covered, creating what we call a protection gap. It means that the cost structure of insurance is just too high to offer insurance to certain jurisdictions.

Blockchain technology can change the process by allowing the secure transfer of assets. We can now create markets around insurance risk transfer and massively cut the cost. The sequential process turns into parallel process, and the industry can close the protection gap in a way we haven't done before. In the end, people will get more insurance, cheaper.



Kiran Nagaraj

In the continuing shift toward a digital economy, digital tokens and digital values are the future. Bitcoin was a fantastic experiment where no central authority stands behind and provides assurance over the validity of currency. Central banks are getting behind this concept now—there are about 1,300 crypto currencies today—and they are providing stable coins, which are essentially fiat-backed coins, to provide a whole new realm of financial service possibilities.

Crypto represents a topline play for most financial firms. It's a new revenue stream, especially in capital markets. For some, it's a form of payment. In certain emerging markets, the tokens that you have, whether it's a Bitcoin or any other coin, provide a much more efficient way to transfer value.



Topcoder CEO Mike Morris shared lessons he learned as a crowdsourcing business pioneer.

CASE STUDY

Lessons in Crowdsourcing

MIKE MORRIS CEO, Topcoder

Organizations of all stripes—from startups to established enterprises, from research entities to government agencies—compete for top technology talent. Topcoder, a crowdsourced marketplace for developers, designers, and data scientists, is tapping into the skills of millions of people around the world to meet that demand. The company’s platform engages people in coding and design competitions for prize money on behalf of clients, ranging from NASA to Land O’Lakes. CEO Mike Morris shared lessons learned as a crowdsourcing business pioneer.

3 TAKEAWAYS

MANAGE RISKS TO GROW THE ENTERPRISE.

BUILD YOUR NICHE, SPREAD THE WORD, AND PROMOTE PLATFORM ACTIVITY.

OFFER DEVELOPERS DIGITAL EXPERIENCES TO ENCOURAGE PARTICIPATION.



THE GIG ECONOMY

We have 1.3 million people across the globe on the Topcoder platform. At any given time, there are about 100,000 active users and we've paid out more than \$100 million in prize money. It's a unique model because we don't pay salaries, we don't pay for hours, and we don't pay for effort. Everything on our platform is in the form of a challenge or a race, and rewards are based on performance. That's the lifeblood of Topcoder. Interestingly, the prize money is not what motivates people to solve problems on Topcoder: It's the recognition; it's the problem itself.

The community is viral and growing by about 50,000 people per quarter. We are very much in the hearts and the minds of the developer community, and we're in every corner of the globe. Topcoder has five times more engineers than Microsoft, Facebook, and Twitter combined.

Freelance work truly is the future of work: One in three U.S. workers is a freelancer. In addition, more than 75% of enterprises are expected to be using some sort of crowdsourcing this year. So we are in a sweet spot of activity, and platforms are going to spread quickly to this market.

Freelancers are going to migrate to these platforms because they provide a place to explore healthcare coverage options, get a pipeline of steady work, and find interesting projects.

PLATFORMS ARE DIGITAL

It's important to remember that platforms are two-sided, and you need to digitize both sides. From our inception, we focused on the developer community; not on digitizing the customer side and eliminating the intermediaries. In retrospect, that was a mistake we now have to address.

Amazon is doing it right. Their developers can get up and running on their platform, a completely digitized experience, in seconds and minutes. On the majority of other company sites it still takes hours and days to get up and running—far from a digitized experience.



**1 IN 3 WORKERS
IN THE UNITED
STATES ARE
FREELANCERS**



**MORE THAN 75%
OF ENTERPRISES
EMPLOY
CROWDSOURCING**



**CROWDSOURCING =
20% OF ENTERPRISE
APPLICATION
DEVELOPMENT**



**Platforms are two-sided.
You need to digitize both sides.**

MIKE MORRIS CEO, Topcoder



Rodney Sampson shares his strategies for expanding diversity and inclusion in the technology industry with Peter Evans.

FIRESIDE CHAT

Platforms for Opportunity and Inclusion

RODNEY SAMPSON CEO, Opportunity Hub

PETER EVANS Principal, KPMG, Innovation & Enterprise Solutions, KPMG

In addition to being an author, investor, and entrepreneur, Rodney Sampson is founder and CEO of Opportunity Hub, an inclusive platform that seeks to disrupt poverty and bridge the racial wealth gap. He sat down with Peter Evans of KPMG to discuss strategies for increasing diversity in technology companies and how his company is expanding opportunities for people of color and those in socially disadvantaged communities.

3 TAKEAWAYS

PLATFORMS CONNECT DIVERSE AFFINITY GROUPS.

PLATFORM PARTNERSHIPS CAN EXPAND TALENT-SUPPLY ECOSYSTEMS.

OFFER OTHER RESOURCES—PHYSICAL WORKSPACES, FUNDING, SCHOLARSHIPS—TO REACH MORE PEOPLE.

RODNEY SAMPSON

I started my first technology company 20 years ago. I was in my last year of medical school, but I withdrew and returned to Atlanta where I started a company called Multicast Media Technologies with two co-founders. We were pioneers in streaming media. We built that company and sold it to Kit Digital, which eventually became Pixel.

There's a lot of conversation now about diversity, inclusion and equity in tech, but back then, there wasn't. In fact, between 2000 and 2002, I was the only black co-founder of a technology company that successfully closed a seed round of financing.

I've authored four books. The most successful is *Kingonomics: Twelve Innovative Currencies for Transforming Your Business and Life Inspired by Dr. Martin Luther King, Jr.* Many people don't know that Dr. King in the later part of his life was focused on economics. I started studying and researching his works and developed the thesis that through inclusive innovation, inclusive entrepreneurship, and inclusive investment, we could address poverty and the racial wealth gap.

How severe is the problem? The average median net worth of a white American family is \$140,000. For Asian American families it's \$100,000 plus. For Hispanic or Latin American families, it's about \$20,000, and for African-American families it's \$17,000. Considering inflation, the net worth of African-American families is about the same as it was after the emancipation of slaves. I'm not talking income. I'm not talking about educational attainment. I'm talking about net worth. That's why we launched Opportunity Hub in 2013.

In our early days, Opportunity Hub was a co-working space with three campuses. We added a coding boot camp, as well as a pre-accelerator and mentorship programs. We were building technical talent and some non-technical talent, as well. In 2015, I partnered with Dr. Paul Judge and Allen Nance and opened a 25,000-square-foot technology hub across from Georgia Tech.

We raised a \$15 million seed fund that currently boasts 27 companies that together have raised follow-on capital of approximately \$400 million. Growth has been tremendous. We employ 900 people, and have annual average revenue of \$75 million. Importantly, some 40% of our portfolio companies have diverse founders.



If you're not investing in women, if you're not investing in black and brown founders, then you're not maximizing the possibility of return.

Rodney Sampson

THE CASE FOR INCLUSION

Before I invest, I ask, "What's your intentional strategy to find diverse founders, because you have a fiduciary responsibility to maximize opportunities for return." If you're not investing in women, if you're not investing in black and brown founders, then you're not maximizing the possibility of return.

Data from McKinsey shows that when you include women on a decision-making team, you experience 15% more economic output, and develop 15% better products. The same study finds that ethnically diverse teams result in 35% more economic output.

I believe that diversity is representation, inclusion is a seat at the table, and equity is a seat at the head table. A part of our go-to-market strategy is getting in the room and talking to folks who say, "I want to solve this." And they commit resources and fund our programs and our students. And they commit to hire, not just to interview.

SUMMIT SNAPSHOTS

#platformtalk

Summit sessions—as well as breaks, lunch, and receptions—provide attendees from diverse industries time to share platform ideas and best practices.



Above Ahmad Anvari, Product Lead, Optimization & Automation, explained how Uber is becoming much more than a ride-share app.



Below Susan Young, Producer of the Inclusive Innovation Challenge, talks about this year's finalists from around the world.





Irfan Ganchi described Uber's "hyperlocal" platform strategy.

CASE STUDY

Driving Growth in Multi-sided Markets

IRFAN GANCHI Global Head of Advertising and Marketing Products, Uber
AHMAD ANVARI Product Lead, Optimization & Automation, Uber

Uber is known for its simplicity. With just a few taps on your phone, a driver picks you up and takes you where you want to go. But behind this sleek UX is a complex ecosystem consisting of a multi-sided, hyper-local platform that is constantly scaling for growth. Uber's Ahmad Anvari and Irfan Ganchi discussed the complexity and growth of Uber's platform.

3 TAKEAWAYS

TO BALANCE SUPPLY AND DEMAND, UBER GENERATES 5 MILLION FORECASTS EVERY MINUTE.

USE FORECASTING AND INCENTIVES TO ADVANCE CROSS-PLATFORM NETWORK EFFECTS – FOR UBER, IT'S AMONG DRIVERS, COURIERS, RESTAURANTS, RIDERS, AND DINERS.

AS A MULTI-SIDED, HYPER-LOCAL PLATFORM UBER MUST CONSTANTLY SCALE FOR GROWTH.

Every minute, Uber performs 5 million forecasts.

600+
CITIES

65
COUNTRIES

3M
DRIVERS

75M
RIDERS

15M
RIDES DAILY



Ahmad Anvari

Today, Uber has a presence in more than 600 cities in 65 countries. We provide 15 million rides every day, which breaks down to three million drivers and 75 million riders. And these numbers are growing. We are adding new modalities and new products to the ecosystem.

There are two sides to the Uber transportation platform: riders and drivers. With new products, such as Uber Eats, we've expanded to a more complex, multi-sided platform, adding on delivery partners, restaurants, and consumers. Our old and new ecosystems are connected: We are converting riders to eaters and eaters to riders. We are converting drivers to couriers and couriers to drivers.



Irfan Ganchi

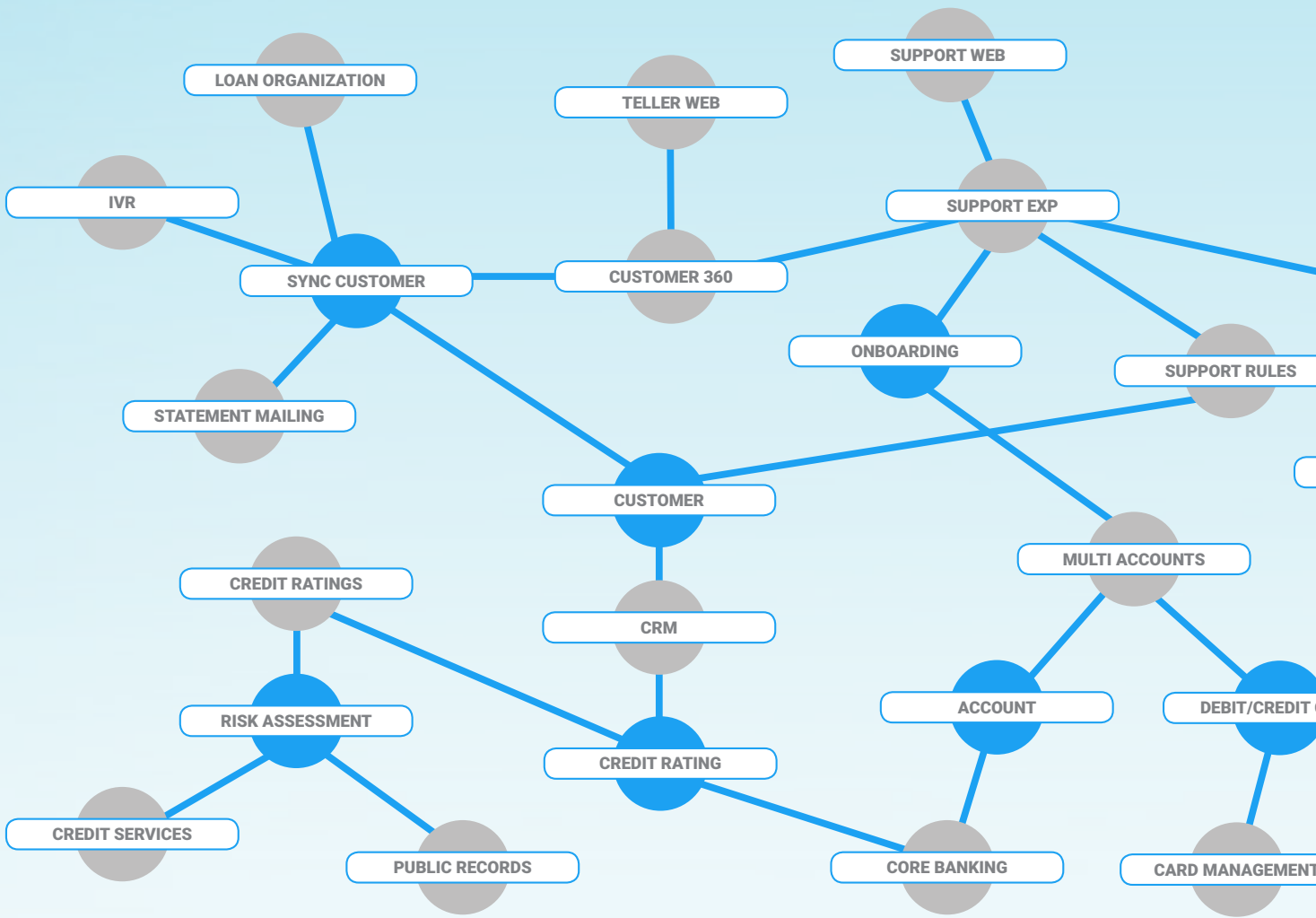
Uber is also a hyperlocal platform because we optimize and personalize our apps down to specific city blocks, or what we call hexes. That's why you will notice that in downtown Boston during peak time, you have a certain rate, while in other city blocks on the outskirts, the rates are different. We have to remember that when riders open the Uber app, they want a ride *now*, regardless of how much we are scaling our platform behind the scenes.

Uber drives growth at the micro level where supply and demand adjustments are made in real time. And to do that we must be able to forecast with greater precision than other platforms. In the case of Airbnb, for example, travelers are searching for months, weeks, or days in advance of their trip. With Uber, the search can be measured in seconds. Every minute, Uber completes 5 billion forecasts to understand—and accommodate—actual supply and demand. Our algorithms need to account for exact locations—city blocks, not cities—as well as strict time requests, and real-world situations. These are the metrics that shape our market so we can achieve balance and consistency.

UBER DRIVERS ARE ON ALL SIDES OF THE MARKETPLACE



Within the familiar Uber transportation system, there are two sides to the marketplace: riders and drivers. Uber Eats, however, is a multi-sided platform with delivery partners, eaters, and restaurants.



CASE STUDY

A Blueprint for Digital Platforms

URI SARID CTO, MuleSoft

Application programming interfaces, or APIs, have long been regarded as the province of developers. But increasingly, businesses are thinking of these software-development tools as products. Uri Sarid is CTO of MuleSoft, an integration platform that connects software-as-a-service and enterprise applications. He shared his perspective about the role of APIs in business-to-business platforms.

3 TAKEAWAYS

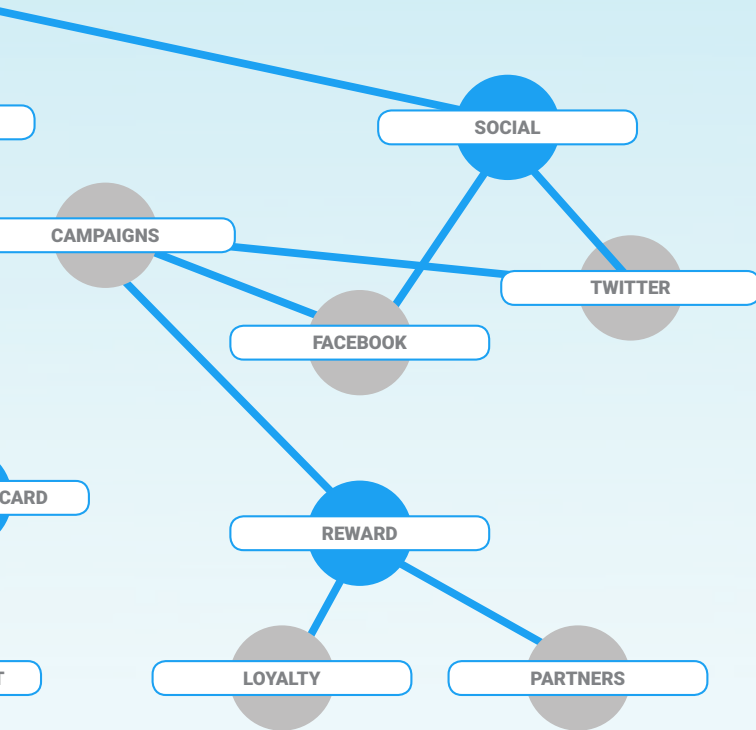
SELF-SERVICE OPTIONS ACCELERATE EMPLOYEE ONBOARDING TIMES FROM WEEKS TO MINUTES.

BUILD VALUE-CREATING PRODUCTS AND SERVICES TO ATTRACT MORE STAKEHOLDERS.

MODULARIZING YOUR ENTERPRISE VIA APIS LETS YOU RETIRE TECHNICAL DEBT, BOOST FLEXIBLE INNOVATION, AND TAP THIRD- PARTY RESOURCES.

A TYPICAL TOPOGRAPH

A topograph maps processes and shows how they interconnect with application networks and social networks.



Most corporate app development effort today is spent on keeping things running, not on changing and innovating.



URI SARID CTO, MuleSoft

APIs AS PRODUCTS

People used to think of APIs as a technical concept—as the way systems connect to each other. In a platform-centric world, however, it makes more sense to think of APIs as value-creating products. The more you invest, the more you get out. How do you make that happen? Introduce network effects and create the platform. As in any platform, someone who has gained value has to transmit and communicate that value to potential stakeholders.

The biggest example of this is Amazon Web Services. Amazon laid the structure 15 to 20 years ago for every internal development team to have APIs that can be externalized.

AN APPLICATION NETWORK...

EMERGES FROM THE BOTTOM UP, VIA SELF-SERVICE.

PROVIDES VISIBILITY, GOVERNABILITY, AND SECURITY AT EVERY API NODE.

IS BUILT FOR CHANGE: IT BENDS, BUT IT DOES NOT BREAK.

APPLICATION NETWORKS

Application networks emerge incrementally and from the bottom up. Eventually, you get economies of scale when application networks communicate and create an architecture in which innovations and capabilities become very easy to leverage. As you build out the network, you create a consumable app store, leveraging existing assets.

Why is this valuable? The typical business struggles with a tremendous number of software systems that it somehow has to knit together. As an integration company, MuleSoft sees this struggle every day. Most corporate app development effort today is spent on just keeping software running, not on changing and innovating.

The next big step for our industry is to create a topograph, or platform repository, of interconnected APIs. It tells you in great detail how your various systems are connected, and would greatly ease bottlenecks for software developers.



PANEL

AI and Data-Driven Business Innovation

MONA VERNON CTO, Thompson Reuters Labs **MODERATOR**

IAN MYERS CEO, NewsPicks

MICHAEL PALUMBO Head of Data Innovation, Marine, R² Labs, Rolls Royce

Artificial Intelligence, or AI, is the engine behind much of the platform innovation happening today. This panel brought together experts from all ends of the technology spectrum—including a business information company, a century-old industrial manufacturer, and a digital media startup—to assess AI's impact, potential, and limitations.

Don't spend all of your time in places where the information you see is controlled by algorithms.

Ian Myers



Michael Palumbo

I'm in a group within Rolls Royce called R-Squared (R²) Data Labs, a digital transformation catalyst and a hub for AI and innovation strategies. We want to use AI and data analytics to solve traditional business problems where we have previously looked to engineering solutions. It's a big focus for us.

AI is a core part of our strategy. The practical application of AI in manufacturing is aimed at smarter real-time production. We have some of the brightest engineers in the world, but a lot of them have a blind spot when it comes to data-driven decision making. Getting people to trust AI and apply it on the operational side has huge benefits for us.

For example, operational data analysis makes it possible to understand why some auto parts and equipment pass inspection while others don't. At Rolls Royce, where parts are very expensive, we want to make real-time adjustments that can potentially prevent costly mistakes and pass the savings and quality along to customers.



Mona Vernon

Why does AI work? In media and elsewhere it's a combination of things: investing in data and human expertise, defining the design experience, and wrapping your head around evolving technologies.

Our new AI project, Westlaw Edge, is bringing AI into the legal industry at scale. Like every new technology, it goes through three phases: Building cost efficiencies, boosting revenue and customer experiences, and encouraging business model innovation. I often say AI is going to give lawyers super power, since it will give them more time to do what they're good at, rather than spending time on tedious work.

3 TAKEAWAYS

BEWARE OF BIAS BUILT INTO PLATFORM ENGINES.

LOOK OUT FOR PLATFORM INTERLOPERS ENTERING TRADITIONAL MARKETS.

PERSONALIZATION AND CUSTOMIZATION ALGORITHMS USUALLY BEAT HUMAN EFFORTS.



Ian Myers

NewsPicks is a joint venture between News Corp. and the Japan-based business media company, Uzabase. We have about 20 employees and are entirely software-based. We are creating a platform for media, rather than bringing media to an existing platform. The platform is a one-stop shop for digital news aggregation and commentary, but we highlight the unique insights of business experts and thought leaders such as Richard Branson, Ian Bremmer, and Arianna Huffington.

We are somewhat skeptical about the power of AI in our industry. In the last year or two, media has come under fire and people are questioning whether editorial, and the way we consume information, should be distributed and controlled by algorithms and AI. We're looking at whether we can build a better system for news dissemination.

For decades, the biggest players in the media industry thought they had content platforms, but what they actually had was a really tall soapbox. Meanwhile, newcomers such as Facebook, Twitter, and Google, created real platforms and now the media industry is in the unfortunate position of having to rely on other platforms to distribute their content.

The biggest AI applications in media today are cataloging and identifying relevant information so that it gets to people when they want it and how they want it. When it comes to news selection, personalization, and customization, algorithms are far and away better than humans. Every user is unique and has media habits that can be easily understood by algorithms.

PANEL

Entertainment Meets Platforms

JOE BELLIOTTI Founder, NOISEGATE **MODERATOR**

NICK TERZO Vice President of Strategy Development, Royalty Exchange

FABRICE SERGENT Managing Partner, BandsInTown

NATHAN HANKS CEO, Music Audience Exchange

The digital revolution is music to the ears of industry executives and investors. Since the early days of Napster file-sharing, the concept of owning music has evolved to accessing a track or album with a couple of clicks. From marketing to recording to distribution, digital platforms continue to re-imagine every aspect of the music business, and add new layers to traditional business models. During the Entertainment Meets Platforms panel, experts discussed how digital platforms are disrupting various aspects of the music business, and what that means for the bottom line.

3 TAKEAWAYS

PLATFORM MARKETS LEVERAGE METADATA TO REACH NEW AUDIENCES ACROSS MULTIPLE CHANNELS.

MUSIC ACCESS VIA DIGITAL DISTRIBUTION AND STREAMING IS THE NEW NORMAL.

TRADITIONAL ROYALTIES, BRANDS, AND RIGHTS ARE ALL BEING DISRUPTED AND REFORMULATED TO REAP MORE PROFITS.



Joe Bellioti

Consumers today have easy online access to music through Spotify—a shift started about 20 years ago when Napster was developed. Now, the goal is to have consumer access to music, not ownership of music, as the default.

Industry dynamics are changing dramatically, and the advertising world is about to be completely disrupted. As an example, the largest TV network in the world, Netflix, has no advertisements. TV was the bread-and butter-of advertising, but viewing is all driven by consumer behavior now.

Approximately 40 percent of concert tickets go unsold in the U.S. There's an inefficiency in concert planning. It's a \$2 billion opportunity missed by the artist.

Fabrice Sergent



Nick Terzo

The Royalty Exchange is a marketplace that connects music rights holders (artists) with investors. Our platform has 23,000 investors looking for non-correlated assets—that is, value not attached to the stock market. With the growth in streaming right now, songwriter royalties are providing great yield for investors.

We're looking at historical trends, preferably catalogs of music over three to 10 years, that gives investors insights into music tastes and preferences. We analyze the data and provide a marketplace to match artists and investors. We just built a valuation engine to measure what an asset is worth to the investor. Artists also can use it to input statements from any rights organizations to learn the valuation of a song or catalog. Until now, the artist had to sell all their music rights all at once. Now, an artist can sell one song or a whole catalog; they have more options.



Nathan Hanks

We call what we do “music promotion for brands.” If you're listening to Pandora, watching YouTube, or are at a live show and you hear an artist thanking a brand for supporting their music, Music Audience Exchange put together those business deals through a platform.

Brands know that music is the number one signal of identity in the world, and they want to tap into that trend. When people share a similar taste in music they believe that they share values and interests.

We employ data and AI techniques to match product brands with musicians in our marketplace. We must convince brands that this is a viable way to spend marketing dollars, and that's not easy. But the more deals we sign, the easier it is to show value. Our goal is to standardize the unit of a brand sponsorship in music.



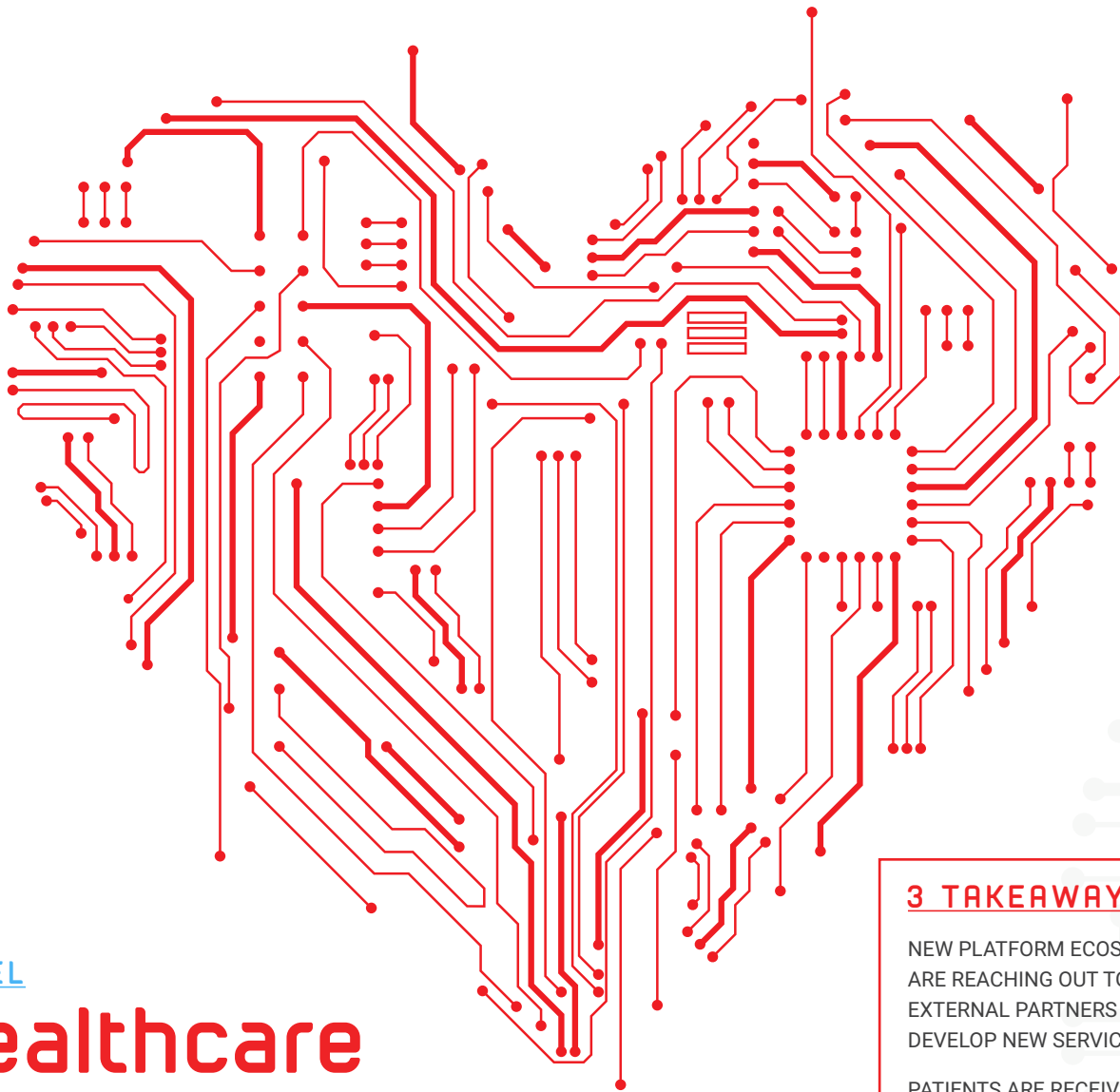
Fabrice Sergent

Bandsintown connects 43 million engaged and passionate music fans with 450,000 artists. This growth has been organic; we never advertise.

We realized there was no equivalent to the movie site, Fandango, for concerts, so we started researching. We acquired a Facebook-based company that was enabling artists to post tour dates. It had the basics. We launched the broader platform in early 2012, and we built the company on data so we could predict and recommend concerts to fans.

Today, we send approximately 100 million alerts through apps and emails. We build music DNAs, or profiles, for each user that joins the platform. Profiles are developed when users share their Facebook and Spotify accounts with us, when they track artists manually, RSVP to shows, and when they buy tickets. With all this data, we continue to build a robust recommendation engine.

Approximately 40% of concert tickets go unsold in the United States, representing \$2 billion in missed opportunity of all types. Hopefully, with Bandsintown, you'll never miss a show again. We expand the pie by alerting users about shows that might interest them and helping them discover new artists. In fact, half of our users attend at least one show by an artist they had never heard before.



PANEL

Healthcare Platforms and Digital Health

VALÉRIE ABRELL DUONG Vice President for IT, Sanofi

THOMAS FRIESE Vice President for Digital Ecosystem Platform, Siemens Healthcare

GEOFFREY PARKER Professor, Dartmouth; MIT IDE Digital Fellow, and Summit Co-Chair **MODERATOR**

ALICE RAIA Vice President, Digital Presence Technologies, Kaiser Permanente

3 TAKEAWAYS

NEW PLATFORM ECOSYSTEMS ARE REACHING OUT TO EXTERNAL PARTNERS TO DEVELOP NEW SERVICES.

PATIENTS ARE RECEIVING CARE VIA VIRTUAL METHODS AT INCREASING RATES.

A PANDORA'S BOX OF PRIVACY CONCERNS OPENS ALONG WITH MORE MEDICAL DATA SHARING.

Healthcare spending accounts for nearly 20% of U.S. gross domestic product and continues to rise annually. With a myriad of new regulations, stakeholders with conflicting interests, and medical advances, it is an industry as complex as it is vital. Geoffrey Parker led this discussion of how platforms are driving change across the healthcare market.



Thomas Friese

Siemens is a market leader in diagnostic imaging. We install roughly 25% of the imaging equipment in the world, including X-ray machines, CT scanners, and MRI equipment. Our equipment touches about 240,000 patients every hour.

A few years back, I was challenged to build a platform to benefit not just the customer buying and using the equipment, but also the patient. At the time, 85% of the equipment we sold was networked for customer-service purposes and preemptive, predictive maintenance. We created an ecosystem platform; a cloud-based, added-value service platform. We opened the APIs all the way down to the devices, including building the business models around this new open environment.



Alice Raia

Kaiser Permanente recorded more than 100 million primary care interactions last year. More than half of them were virtual, including chat, email, phone, and video visits. We're looking at even more ways to extend the virtual landscape so that we can treat our patients and members where they want, how they want, and with a personalized experience.

We are adopting a forward-thinking operating model that embraces member- and patient-centered experiences—something that's becoming standard in the industry. We now have DevOps across all of our digital experience teams, an approach that is radical for our company because we've been good operationally for 70-plus years, and our incentives have been around operational and quality excellence. The change is already dramatic: We went from being able to release capabilities once a quarter to once every two weeks.



Valérie Abrell Duong

Sanofi, which is focused on drug delivery and discovery, is experiencing a major transformation with new technology, and it's become critical for us to connect better with the outside world.

Data is at the core of the company, but there are new technologies and new ways of approaching discovery, or running clinical trials, or going to outcome-based contracting, that can help us do business more effectively. For instance, AI and digital technologies will accelerate clinical trials and transform drug discovery. One of the big challenges in clinical trials is that people must travel to dedicated sites, which can be a limiting factor to accessing care. We partnered with Science 37, a startup that lets patients participate in clinical trials from their homes. We also see that people are likely to share their data through wearables or sensors, and that gives us access to new knowledge. To make these new access points happen, we are building new capabilities to drive better insights from the data.



Geoffrey Parker asked panelists: Which of you will build the Amazon, the Uber, or the Airbnb of healthcare? And what would that look like?

Alice Raia

The Amazon/Berkshire Hathaway/JPMorgan Chase venture is a hot topic at Kaiser Permanente. Building a successful healthcare platform must be a combination of technology, services, processes, and people. There needs to be a way to minimize the complexity of healthcare away from the person experiencing it. It's about realizing that we are in the business of providing an experience, and that experience is health, not illness.

Valérie Abrell Duong

I've lived in a number of countries around the world, and one of the things that I found painful is losing track of all your medical records. Hopefully, there will soon be a platform that enables and empowers patients and their caregivers to be more in control. With all the security improvements that are going on right now, blockchain is potentially the solution to make platforms secure and private. That will really empower consumers, patients, and their caregivers.

SUMMARY

Key Themes



Geoffrey Parker and Marshall Van Alstyne summarize five key themes that emerged during the 2018 Platform Strategy Summit.

1 Platforms are making new business models possible.

In some cases, such as Airbnb, platforms are reducing market friction and activating unused capacity. Uber is expanding its ride-share app with food and other personalization services demonstrating that multi-sided platforms are on the rise.

2 Platforms are accelerating network effects by creating value and participation.

MuleSoft experienced this by treating its APIs as products. TopCoder is an example of how crowdsourcing is a new component of platform ecosystems.

3 Hiring talent and finding skilled workers can be fast-tracked on platforms.

Moreover, open platforms may help achieve much-needed hiring diversity with dispersed, accessible opportunities.

4 The value of data is being recognized, mined, and monetized.

Platforms are increasingly more data-driven. Other industries such as healthcare, entertainment, and consumer services are following suit. The data captured by platforms spurs new interest, and in turn, creates new network effects and opportunities.

5 Platform regulation is changing the landscape.

New taxes will be levied even when there's no local store. Certain freelancers will become employees. GDPR will entrench incumbents, with higher costs from monitoring and potentially reduced innovation. Open banking will shift power from banks to platforms.

THANK YOU

We are indebted to the MIT Initiative on the Digital Economy and to our generous sponsors, individuals, corporations, and foundations that support us. Working together, we are ensuring that everyone reaps the benefits of the digital economy.

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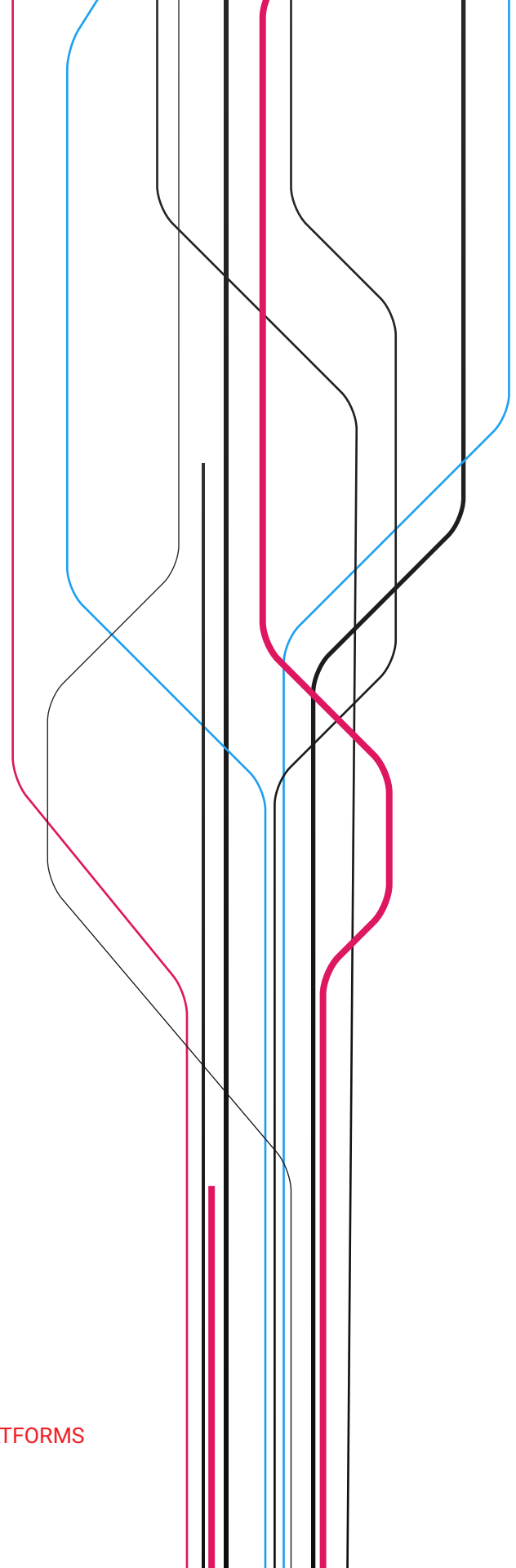
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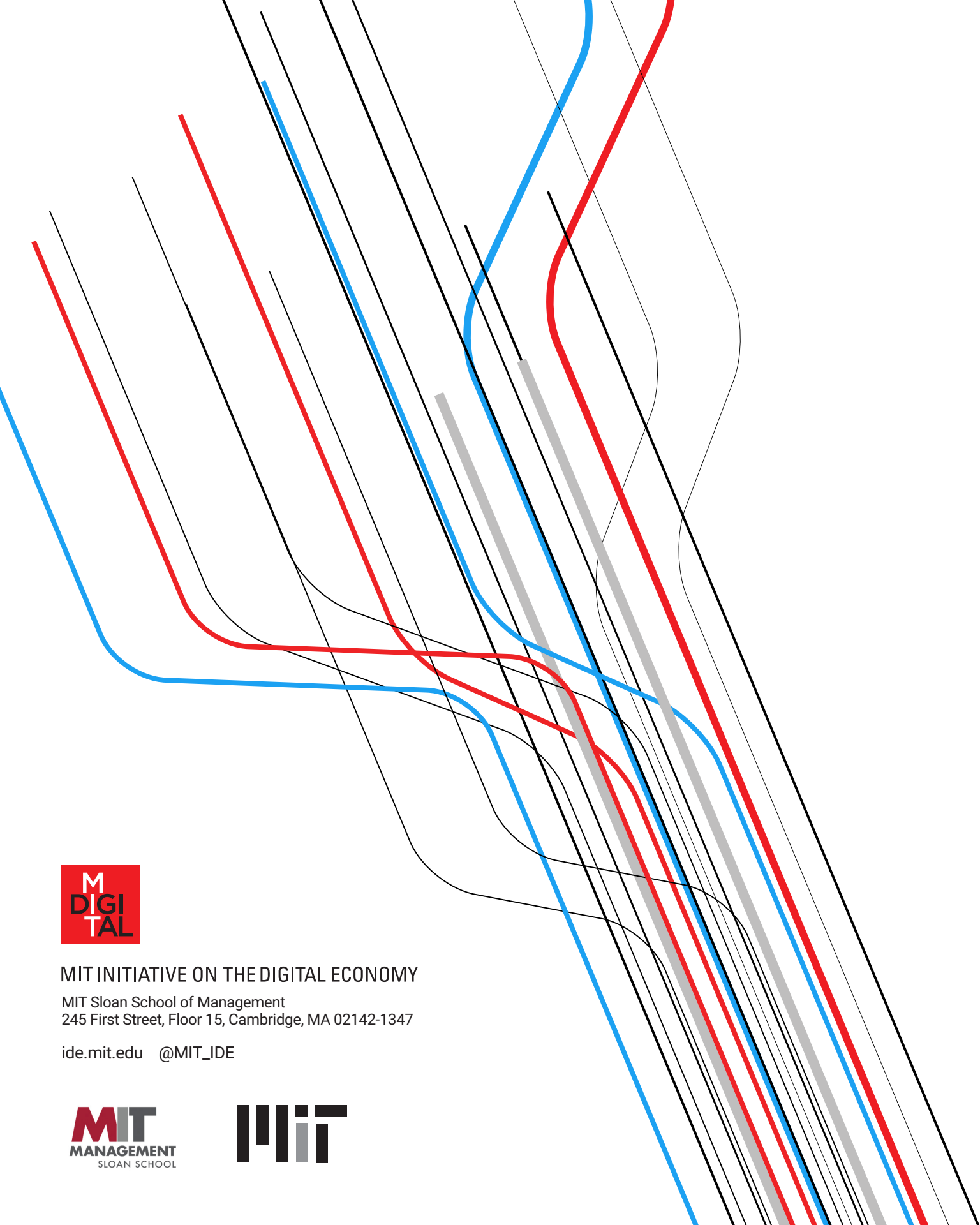


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