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# Maximize Personal Technology Platforms to Shape User Experiences Primer for 2018

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Supporting Key Initiative is [Maximize Personal Technology Platforms to Shape User Experiences](#)

In order to gain access to, collaborate with and compete in wider ecosystems, TSPs must evolve their strategies, creating smart experiences that provide value to all parties. This research will guide strategic planners on how to embrace platforms for growth and deliver excellent experiences.

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## Scope

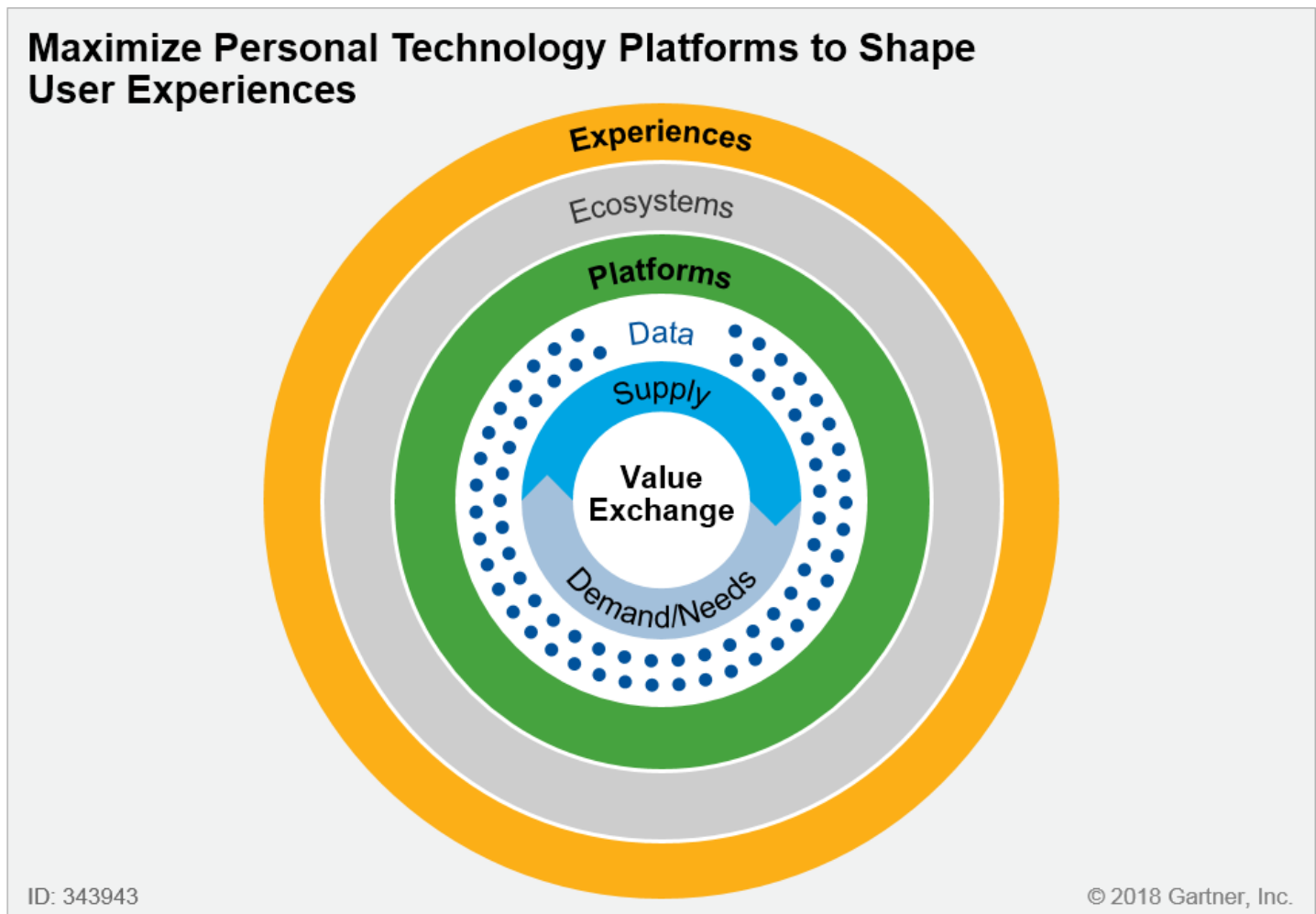
This initiative outlines research to support evolution of strategies and tactics to conceive, develop and use platforms to design experiences, lift growth and gain traction for products and services.

This initiative covers:

- Differentiation by creating intelligent user experiences
- Platforms shaping future experiences
- Strategy and tactics to optimize market position and maximize partner and ecosystem engagement
- How disruptive platforms and experiences reshape approaches to business models/channels
- How to understand and shape user behavior
- How to use artificial intelligence to make products and services smarter

## Analysis

**Figure 1. Maximize Personal Technology Platforms to Shape User Experiences Overview**



Source: Gartner (January 2018)

In 2017, the top six companies worldwide by market cap are all platform-centric businesses (Apple, Alphabet, Microsoft, Amazon, Facebook and Alibaba), and represent major personal technology vendors that users spend their time and money with. Platforms change how we shop, communicate, earn money, engage with healthcare, and how we live. Worldwide, it is a trillion dollar market connecting supply and demand with scalable business models. Strategic planners must plan to operate in many ecosystems.

Greater competition and growing user power have eroded product and service-based differentiation with the user experience and platform-based approaches now seen as the drivers of competition. It is clear that strategic planners must diversify revenue streams and be attuned to the explicit needs from their users and the wider market. Many leading companies have matured products into platforms and expanded revenue streams. The key is knowledge on when to buy vs. build, and how to simulate growth.

TSPs must both use and develop platforms to create differentiated business models and experiences that promote growth and value from their products and services. Conceiving, designing and using platforms require focus on the needs and behaviors of users, which requires data expertise and AI approaches. Successful platform strategies will leverage the power of data network effects and carefully control the

elements of value creation to avoid copycats. New personal technology platforms not only shape the user experience, but will improve it for those companies that embrace the changes this agenda articulates.

## Top Challenges and How Gartner Can Help

Gartner's 2018 platform and experience research will help TSPs envisage key future experiences, the ecosystems in which they take place and provide them with the roadmap of platform decisions they must make. The platform decisions need to be made to create a differentiated offering and a loyal customer base. In 2018, we will focus on providing insight and advice into three of the most frequently asked questions from our TSP clients:

- How can we differentiate by creating intelligent user experiences for the future?
- What strategy should I use to optimize my market position and maximize my partner and ecosystems landscape?
- How can I understand and shape user behavior?

### How can we differentiate by creating intelligent user experiences for the future?

Designing the experience can be a daunting, yet company-defining, task. From discovering products and services to their use, support and evolution. The best approach is an outside-in view where first principles apply in understanding users' needs and delivering against them. Strategic planners must:

- Make interactions more pleasurable and rewarding
- Make predictable tasks more frictionless
- Provide support on complicated decisions and one-off tasks
- Gain trust from users to unlock more personal data

We are moving from an era where users learned to communicate in a way that computers understood (point, click, configure and code) to one where computers learn how humans communicate (speech, movement, image and emotion). This requires a new approach to experience design rooted in the cognitive sciences leveraging insights and tools from artificial intelligence, social sciences, linguistics, neuroscience and anthropology. This is in order to understand language, perception, memory, attention and reasoning across a variety of user contexts and needs.

This agenda will support strategic planners in understanding how to envision these experiences and detail how to leverage the core tools and platforms used to deliver them from natural-language processing and computer vision. It will also support how they are presented as multimodal interactions across a variety of touchpoints from virtual assistants to 3D environments, such as augmented, virtual and mixed reality.

Our research can help in several ways:

- **Demand** — As users begin to adopt more devices and reduce the number of interface providers in the home and workplace, we expect to see buying and interaction patterns change to a multimodal approach across multiple devices, products and channels. This approach will pivot on the use natural of voice, text and image, and will mature based on how much users ultimately trust platforms to personalize and automate. Our surveys and research will show what channels customers are using, their attitudes to AI and automation, along with their use-case preferences and priorities.
- **Technology**— Our research can help both technology strategic planners focus on technologies that will help them deliver an excellent customer experience, as well as which technologies and innovations they should be focusing on over the next five years. For example, are investments in AI necessary for your organization and, if so, what technologies should you build and buy and how does that compare with your peers and startups?
- **Identifying trends and implications of new approaches to human computer interaction (HCI)** — As users shift to more natural interactions with computers using voice, sound, video and other sensors, a major change for TSPs is to shift interface design. The interface design shift is from one that users must learn to one that learns users. We will explore and compare HCI innovations and the implications on experience design through trends analysis, case studies and frameworks.
- **Explore future environments for customer experiences** — What are the mechanics and dynamics of a home that is not just connected but intelligent? How does partial and full automation change the automotive experience, and how might technology and service providers (TSPs) and automotives develop safe, complementary services? When users begin to turn to a handful of virtual assistants, how does it affect information retrieval and trust for e-commerce? We will provide thought-leading pieces inspired by startups and vendors to paint the target for you to aim future experiences.

## Planned Research

- Predicts 2018: Enhance the TSP Customer Experience
- How to Move From User-Learning Interfaces to Interfaces Learning the User
- From the Connected Home to the Intelligent Home
- How to Use Context to Shape and Deliver an Experience
- How to Get Users to Solve the Majority of Their Problems Themselves
- Evolution of the Conversational Ecosystem
- The Four Steps to Upgrade Your Experiences to Multimodal
- The Market Opportunity and Cultural Impact of Avatars
- How to Design Multiuser Systems for Public Places — At Home and on the Street
- The Impact of Moving From 2D to 3D Experiences and the Path to Mass Adoption of AR/MR/VR

## ■ Impacts of Social VR in Consumer and Business

### What strategy should I use to optimize my market position and maximize my partner and ecosystems landscape?

Platforms are a key play for TSPs to explore new markets, scale personalization, leverage the power of ecosystems, reduce capital expenditure (capex) and obtain differentiating data to shape future products and experiences. Irrespective of whether you own a platform or use another's, it is critical to have a platform strategy and the skills to execute it.

The first step to success is to recognize which products and services you have that can mature via a platform, and recognize which of your products and services are at risk from other platform disruptors (see "[Maximize Personal Technologies to Evolve Product Portfolios Primer for 2018](https://www.gartner.com/document/code/343935?ref=grbody&refval=3850764)" (<https://www.gartner.com/document/code/343935?ref=grbody&refval=3850764>)).

We will identify, analyze and profile a great diversity of platforms and frameworks in this agenda, including:

- Technology platforms and frameworks for developers (e.g., ARM Mbed/DynamicIQ, NVIDIA Drive, IBM Watson, Google TensorFlow, Amazon Web Services)
- Computing platforms for AR/VR/MR (e.g., Oculus, ARKit, ARCore, Vive)
- Operating systems (iOS, OSX, Android)
- Conversational and NLP platforms (e.g., Amazon, Facebook, Google)
- Computer vision (e.g., Amazon Rekognition, Google Cloud Vision, Microsoft Azure)
- Connected home and IoT platforms (e.g., Samsung SmartThings, ThingWorx, Apple HomeKit, Google Home)
- Wellness and wearables platforms (e.g., Validic, Google Wear, Qualcomm)
- Communication and interaction platforms (e.g., Facebook, PayPal, Bitcoin)
- Marketplaces and on-demand service platforms (e.g., iTunes, Airbnb, eBay, Heal, CrowdFlower, Uber)
- Content and crowdsourcing platforms (e.g., YouTube, Netflix, Spotify, SoundCloud)

Platform growth and positioning can be delivered from a variety of strategies and tactics. Our research can help in several ways:

- **Demand trends**— As users shift to new approaches for consuming services and interacting with computers through voice, video and sensors, we will identify trends shaping demand around platforms and the channels experiences are delivered on. These demand trends will be illustrated through surveys, forecasts, trends and case studies.

- **Supply trends** — Our research will identify technology, platform and ecosystem trends and their maturity levels so TSPs can both (1) understand competition and identify platform opportunities and (2) shop for solutions. We will do this by providing research that examines competitive vendor landscapes that determine the basis of today's future competition. We will also highlight cool vendors and identify startups that point to the future, along with partner and acquisition strategies.
- **Identifying strategy and tactics for targeting, developing and growing platforms** — Getting to a critical mass and kick starting networking effects and subsequent growth is a major challenge that requires a clear strategy supporting a mix of tactics and good timing. Our research will outline platform strategies and the key tactics needed to foster growth and the business models that support them. These will be illustrated through frameworks, market opportunity maps and real-world case studies.
- **Positioning platform experiences across the cloud, fog and edge** — The emergence of new offerings to deliver AI from the cloud to the edge is enabling next-generation approaches to smart distributed computing that technology strategic planners cannot ignore. Our research will track their evolution, use forecast data to explore network drivers and highlight trends that illustrate how to create next-generation customer experiences by implementing a mix of cloud, fog, and embedded and dedicated chip solutions.
- **Forecasts for video services** — Within this agenda, we will also provide rich coverage of consumer video media services worldwide, highlighting trends shaping the market, forecasting spend across key video delivery models and outlining a market opportunity map.

## Planned Research

- When and How to Move From a Product to a Platform Play
- The Seven Key Platform Business Models You Need to Know
- Ten Key Tactics to Grow Your Platform to Critical Mass
- The Disruptive Platforms Challenging Your Products
- How to Collaborate and Compete With the Platform Strategies of Tech Heavyweights
- Competitive Landscapes, Including Video Services Analytics, Speech to Text, Text to Speech, Natural-Language Generation and Connected Home Ecosystems
- How to Use AI to Amplify Data Network Effects
- Collaboration and Partnership Strategies for AI
- How to Make Your Connected Home Strategy Plug Into Smart Cities

## How can I understand and shape user behavior?

As users expand their use of devices and platforms to address moments of their lives, they create a larger and more diverse data footprint to consider. New interfaces and technologies, such as chatbots, virtual

assistants, mixed reality, multimodal interfaces, biometrics and computer vision, all challenge data-handling skills. It is a challenge that must be met. Integrating and analyzing data from users and the environment in which they live is a major differentiator in improving the user experience. Delivering not just responsive and personalized experiences, but predicting what customers need next and gaining the trust to act increasingly autonomously, will also improve the user experience.

There is a clear opportunity to have data-driven experiences deeply interwoven into how people live across their day. Successful TSPs will create a runaway advantage by ensuring that the data from every customer engagement directly improves the experience — often using data networking effects. However, as user data grows, so does users' view of it as a personal asset to protect and trade for value — something increasingly supported by data marketplaces. TSPs must balance the often-competing goals of creating the most value from data as possible, while respecting user privacy.

Data skills are critical to deeply understand user needs and to create excellent, sustainable and profitable 24-hour customer experiences.

Our research can help in several ways:

- **Uncover the picture of how users are engaging with technology** — We can provide deep insight into what type of 24-hour digital technology mesh users surround themselves in, at home, on the go and at work. We can also get insight into what experiences they demand and want. We will identify user behavioral trends and attitudes that shape demand, tools to help discover and automate these insights, and explore opportunities for new platform models. We will deliver this via surveys, forecasts, vendor profiles, behavioral/persona models and frameworks.
- **Develop a roadmap for engagement across users 24 hours, driven by data insights** — Our research will outline how to create a roadmap for engagement driven by high-value use cases across 24 hours. This is supported by a mix of unique first-party data, shared partner (second-party) data sources, to broader marketplace and aggregate (third-party) data sources. We will place emphasis on two key areas: (1) understanding the context of users; and (2) automating actions and choices for users.
- **Understand and respond to privacy and trust dynamics across the marketplace** — Strong data ethics and including users in the modeling processes are needed to address user concern about how data is used. We will show you how to develop clear key initiatives outlining success for both you and your users. Furthermore, we will explore users' privacy concerns and help strategic planners understand how far users are likely to accept personalization, as well as what type of data and information customers are likely to share in order to gain from personalization.

## Planned Research

- Forecasting the Tipping Points for Personal Technology AI Adoption
- Data Marketplaces Emerge to Deliver the Next Level of Value to Users and Business
- Accelerate Your Clients' Response to GDPR With AI Solutions
- Privacy and Security on Virtual Assistants — Consumers Speak Up

- Competitive Landscape: Simulation Platforms
- Multimodal AI Strategies for Healthcare Wearables and Apps
- Personalization of AI Models for Users — the Ultimate Lock-In
- Innovate With Blockchain to Empower Your Users by Protecting Their Data and Strengthening Their Connection to One Another

## Related Priorities

**Table 1: Related Priorities**

Priority ↓	Focus ↓
<a href="#">Customer Experience Design and Execution</a>	Customer experience management is the practice of designing and reacting to customer interactions to meet or exceed their expectations, leading to greater customer satisfaction, loyalty and advocacy.
<a href="#">Artificial Intelligence</a>	This initiative equips organizations to understand, plan and adopt emerging artificial intelligence (AI) technologies for significant digital business outcomes.
<a href="#">Building and Expanding a Digital Business</a>	Digital business is the creation of new business designs by blurring the digital and physical worlds. Digital business involves the interaction of people, businesses and intelligent "things."
<a href="#">Improve Vertical-Industry Go-to-Market Effectiveness</a>	This primer highlights the impacts to industries and opportunities for technology and service providers (TSPs) afforded by disruptive technology and how TSPs should steer their go-to-market planning.
<a href="#">Maximize Personal Technologies to Evolve Product Portfolios</a>	This initiative represents the planned body of research for 2018 around how to maximize personal technologies to evolve your future product portfolios aimed at consumers and business users.
<a href="#">Internet of Things</a>	Internet of Things (IoT) enables business value creation by reducing operational costs, better managing risk or developing new revenue streams via digital business models and advancing technologies.

Source: Gartner

## Suggested First Steps

- ["The Gartner Scenario for Personal Technologies Providers"](https://www.gartner.com/document/code/308684?ref=grbody&refval=3850764)  
(<https://www.gartner.com/document/code/308684?ref=grbody&refval=3850764>)
- ["Market Insight: Getting Time in the 24-Hour User Experience"](https://www.gartner.com/document/code/308520?ref=grbody&refval=3850764)  
(<https://www.gartner.com/document/code/308520?ref=grbody&refval=3850764>)



- "Customer Experience Is the New Competitive Battlefield"  
(<https://www.gartner.com/document/code/273269?ref=grbody&refval=3850764>)
- "Market Insight: Let Customers Make Smarter Products Using AI"  
(<https://www.gartner.com/document/code/332986?ref=grbody&refval=3850764>)
- "Predicts 2018: Enhance the TSP Customer Experience"  
(<https://www.gartner.com/document/code/342052?ref=grbody&refval=3850764>)
- "Market Trends: Artificial Intelligence and Context Data Drive 24-Hour User Scenarios"  
(<https://www.gartner.com/document/code/315496?ref=grbody&refval=3850764>)
- "Expand Your Artificial Intelligence Vision From the Cloud to the Edge"  
(<https://www.gartner.com/document/code/332821?ref=grbody&refval=3850764>)
- "Market Trends: The Connected Home — A Move Toward Certified Ecosystems"  
(<https://www.gartner.com/document/code/304781?ref=grbody&refval=3850764>)
- "Top 10 Personal Technologies to Support Digital Business"  
(<https://www.gartner.com/document/code/328872?ref=grbody&refval=3850764>)
- "Hype Cycle for Personal Technologies, 2017" (<https://www.gartner.com/document/code/314900?ref=grbody&refval=3850764>)

## Essential Reading

- "Market Insight: How to Collaborate and Compete in the Emerging VPA, VCA, VEA and Chatbot Ecosystems" (<https://www.gartner.com/document/code/319851?ref=grbody&refval=3850764>)
- "Market Insight: Disruptive Macro Trends for 2025 Personal Tech Market — Artificial Intelligence — Me, Myself and AI" (<https://www.gartner.com/document/code/314504?ref=grbody&refval=3850764>)
- "Market Guide for Indoor Location Application Platforms"  
(<https://www.gartner.com/document/code/331314?ref=grbody&refval=3850764>)
- "Market Insight: Creative AI — Assisted and Generative Content Creation"  
(<https://www.gartner.com/document/code/320485?ref=grbody&refval=3850764>)
- "Competitive Landscape: Augmented Reality Tools for Enterprise, 2018"  
(<https://www.gartner.com/document/code/345534?ref=grbody&refval=3850764>)
- "Market Insight: The Future Personal Technology Buying Experience Will Change"  
(<https://www.gartner.com/document/code/317680?ref=grbody&refval=3850764>)
- "Market Trends: Universal Search and Discovery Is Key to the Consumer Video Market Future Dynamic"  
(<https://www.gartner.com/document/code/326548?ref=grbody&refval=3850764>)

- ["Market Insight: Top 5 Tips to Bring Your AI Solution to Market"](https://www.gartner.com/document/code/344620?ref=grbody&refval=3850764)  
(<https://www.gartner.com/document/code/344620?ref=grbody&refval=3850764>)
- ["Market Insight: A User-Driven Segmentation for Deploying Artificial Intelligence Solutions"](https://www.gartner.com/document/code/338732?ref=grbody&refval=3850764)  
(<https://www.gartner.com/document/code/338732?ref=grbody&refval=3850764>)

## Document Revision History

[Enhance the Technology and Service Provider Customer Experience Primer for 2017 - 3 January 2017](https://www.gartner.com/document/code/318281?ref=ddrec)  
(<https://www.gartner.com/document/code/318281?ref=ddrec>)

[Enhance the Technology and Service Provider Customer Experience Primer for 2016 - 18 January 2016](https://www.gartner.com/document/code/292963?ref=ddrec)  
(<https://www.gartner.com/document/code/292963?ref=ddrec>)

## Recommended For You

[Market Insight: Computer Vision in Devices Enhances User Experience](https://www.gartner.com/document/3880033?ref=ddrec&refval=3850764)  
(<https://www.gartner.com/document/3880033?ref=ddrec&refval=3850764>)

[Competitive Landscape: Computer Vision Platform Service Providers](https://www.gartner.com/document/3882268?ref=ddrec&refval=3850764)  
(<https://www.gartner.com/document/3882268?ref=ddrec&refval=3850764>)

[Market Insight: Products That Successfully Target Digital Individuals' 24-Hour User Experience](https://www.gartner.com/document/3778870?ref=ddrec&refval=3850764)  
(<https://www.gartner.com/document/3778870?ref=ddrec&refval=3850764>)

[Target and Fulfill More Human Needs to Bridge the Experience Gap](https://www.gartner.com/document/3873986?ref=ddrec&refval=3850764)  
(<https://www.gartner.com/document/3873986?ref=ddrec&refval=3850764>)

[Survey Analysis: Balance Privacy Controls to Improve the VPA User Experience](https://www.gartner.com/document/3865392?ref=ddrec&refval=3850764)  
(<https://www.gartner.com/document/3865392?ref=ddrec&refval=3850764>)

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