

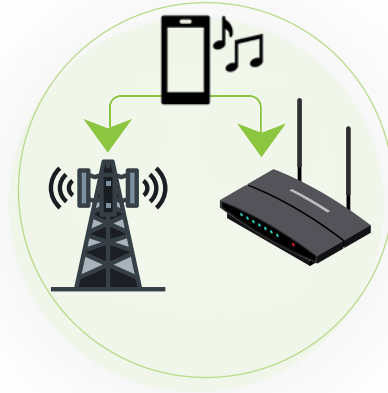
Streaming traffic on mobile apps shifts to user- generated video

May 2023



Our client (an advertiser)

wants to know where to invest advertising dollars to engage younger audiences

**Client hypothesis**

We know that younger audiences stream much more than they watch linear TV, especially on their cellphones.

- Sure, they use TikTok, but commercial streaming platforms are still what they spend most of their time on, right?

HarrisX's Telephia data (actual usage) ended their speculation

Usage for commercial streaming
vs user-generated video apps



Usage differences among
three age groups

Fact: we are at a tipping point for streaming usage on cellphones

For younger ages (who spend most of their time on cellphones) **the vast majority of mobile traffic (WiFi or cell) is from user-generated apps like TikTok.** Advertisers like our client wanting to reach younger audiences need to diversify their approach – this is a clear threat to commercial streaming.

HarrisX monitors commercial streaming services through both survey-based and “real time” platforms

1

Total Communications Survey

All aspects of home internet, TV, streaming, bundles: data from 2007, sample of 90K+ per year

2

Billing Snapshots (bill scraping)

Charges, taxes & fees, plan details, speed tiers, bundles, CSAT tracked for internet providers and mobile carriers

3

Telephia telemetry (data usage)

Telemetry mobile app tracking device, network, parameters and so much more

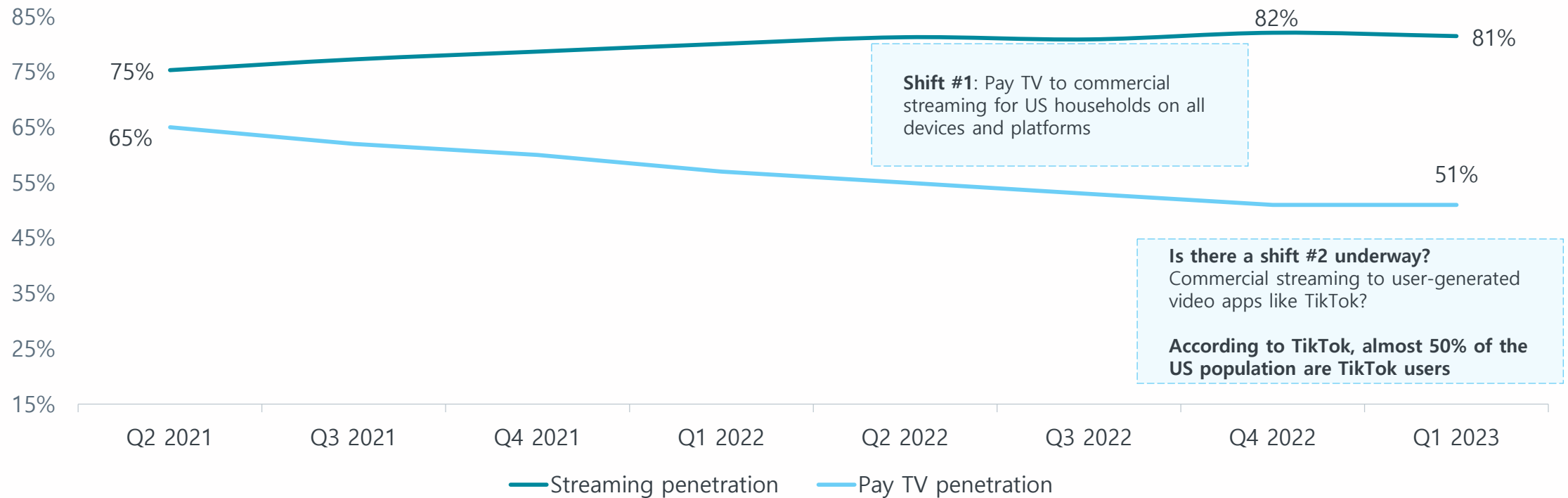
We used data from (1) Total Communications Survey and (3) Telephia to address the client ask.



The market has shifted from Linear TV to commercial streaming services. BUT commercial streaming has plateaued – is traffic going to user generated apps?

Penetration of Pay TV, Commercial streaming (%)

All Households, Q2 2021 – Q1 2023



Base: 183,156 household decision makers, 21,742 Telephia observations of Android users, Q2 2021 – Q1 2023

Source: HarrisX Total Communications Survey, Telephia

Hypothesis: User-generated video apps like TikTok have continued to grow not just in penetration but also in engagement (share of time on mobile)



We used Telephia telemetry data to analyze traffic on mobile phones

Grouping the largest apps into two categories....



User-generated streaming apps

NETFLIX



hulu



HBOmax



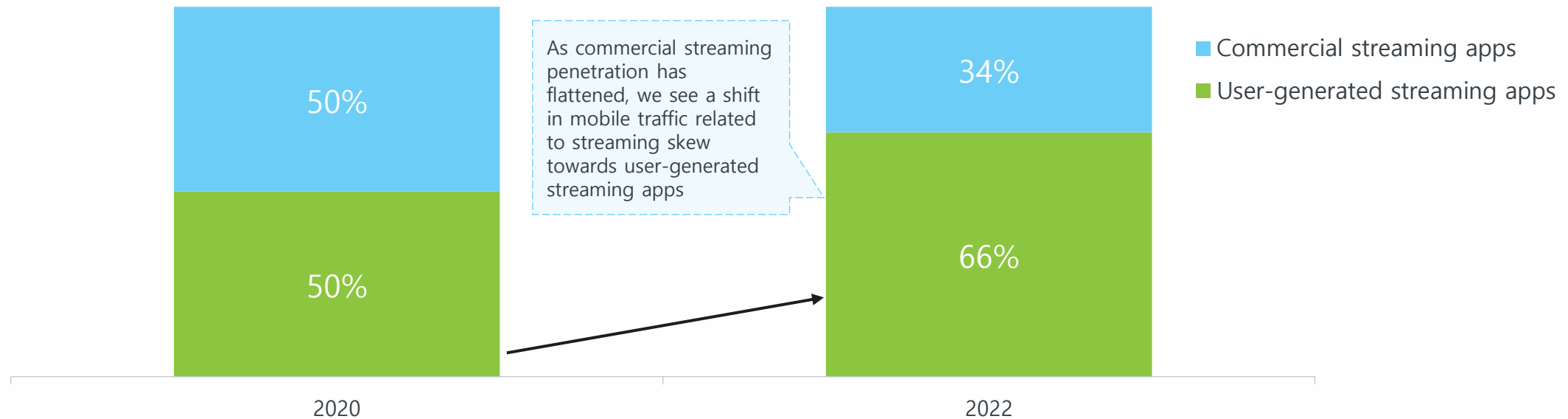
Commercial streaming services apps



Finding #1: User-generated video apps (e.g. TikTok) now commands more data usage than commercial streaming apps (e.g. Netflix) on mobile phones hix

Monthly streaming traffic on commercial vs user-generated apps on cellphones

Monthly usage per panelist for all Telephia panelists, Jan-Dec 2020 vs 2022

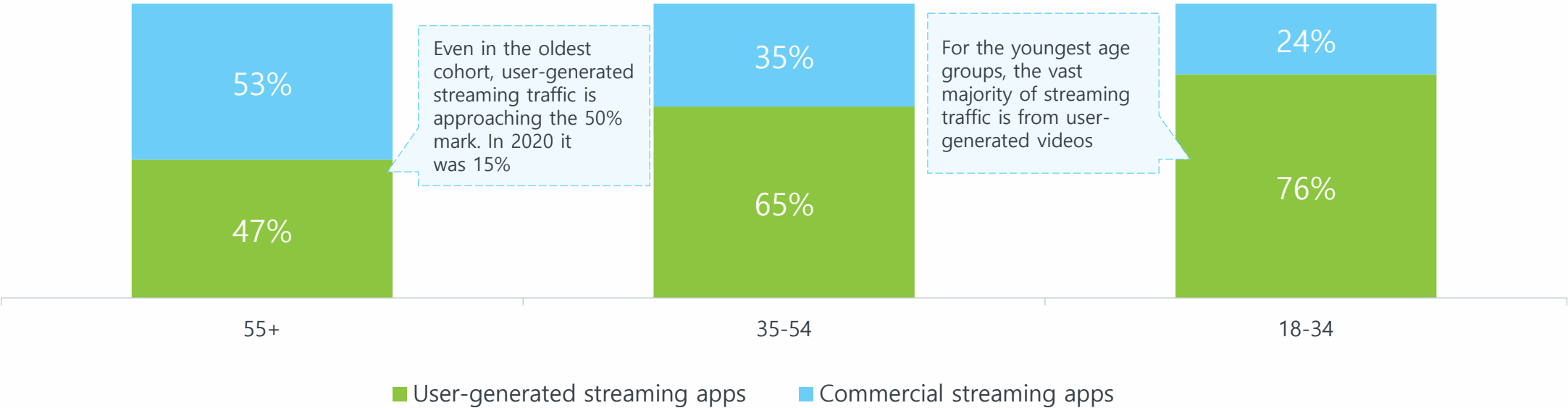


Number of observations: 7,560 (2020), 4,429 (2022)
Source: HarrisX Telephia user panel

Finding #2: Younger age groups are definitely driving the trend – the vast majority of their streaming data is on user generated apps

Monthly streaming traffic on commercial vs user-generated apps on cellphones

Streaming usage per panelist by age, Jan-Dec 2022



Number of observations: 4,429 (2022)
 Source: HarrisX Telephia user panel

Implications of the shift to user-generated streaming traffic on cellphones



With growth in the commercial streaming industry flattening, reaching younger audiences requires an understanding of what they are streaming on their cellphones – this is where they spend their time.



User-generated streaming apps like TikTok are increasingly popular. HarrisX data shows that the majority of streaming traffic on cellphones is now on user-generated apps as compared to commercial streaming services.

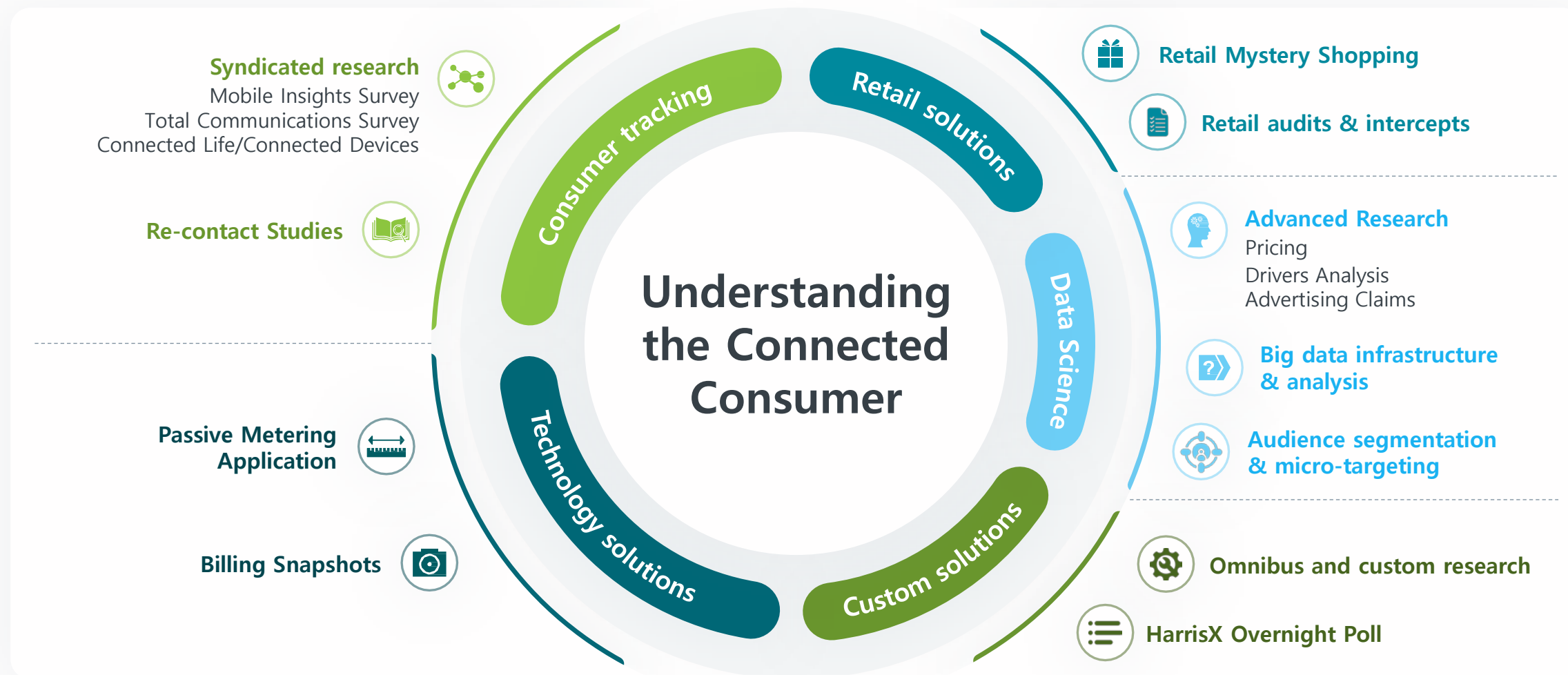


Among 18–34-year-olds, the skew towards user-generated streaming apps is particularly high, with 76% of data usage compared to 24% of traffic from commercial streaming apps.

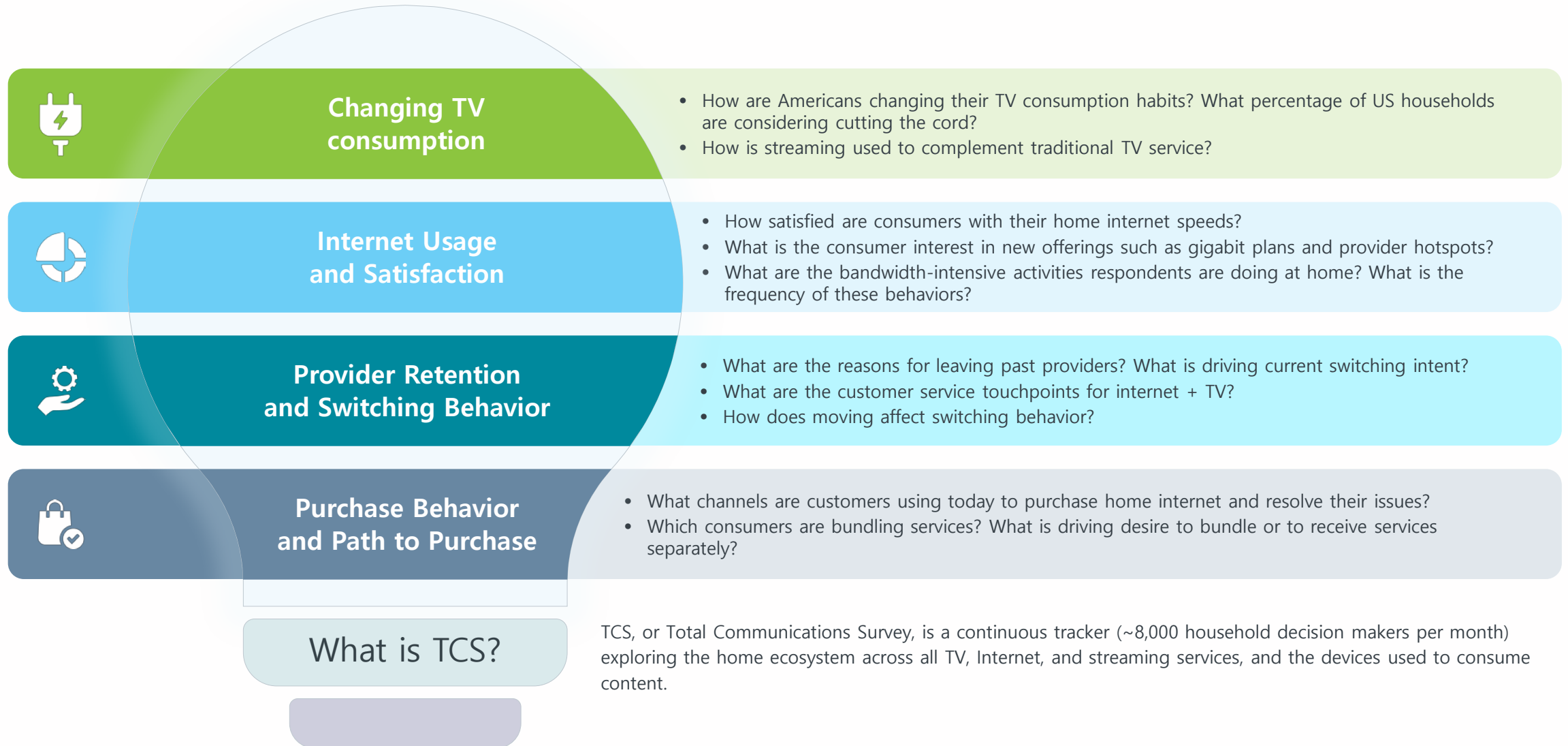
Implications: Our client must consider the rise of user-generated mobile apps if they want to reach and engage younger consumers.
Commercial streaming platforms will soon need to re-assess their strategy and chart a new course to retain them.

About HarrisX

HarrisX has a full suite of services that includes syndicated trackers, custom research, retail and product insights, and data analytics



To learn more about how consumers use and perceive their telecom services at home, HarrisX offers a wide variety of insights through TCS



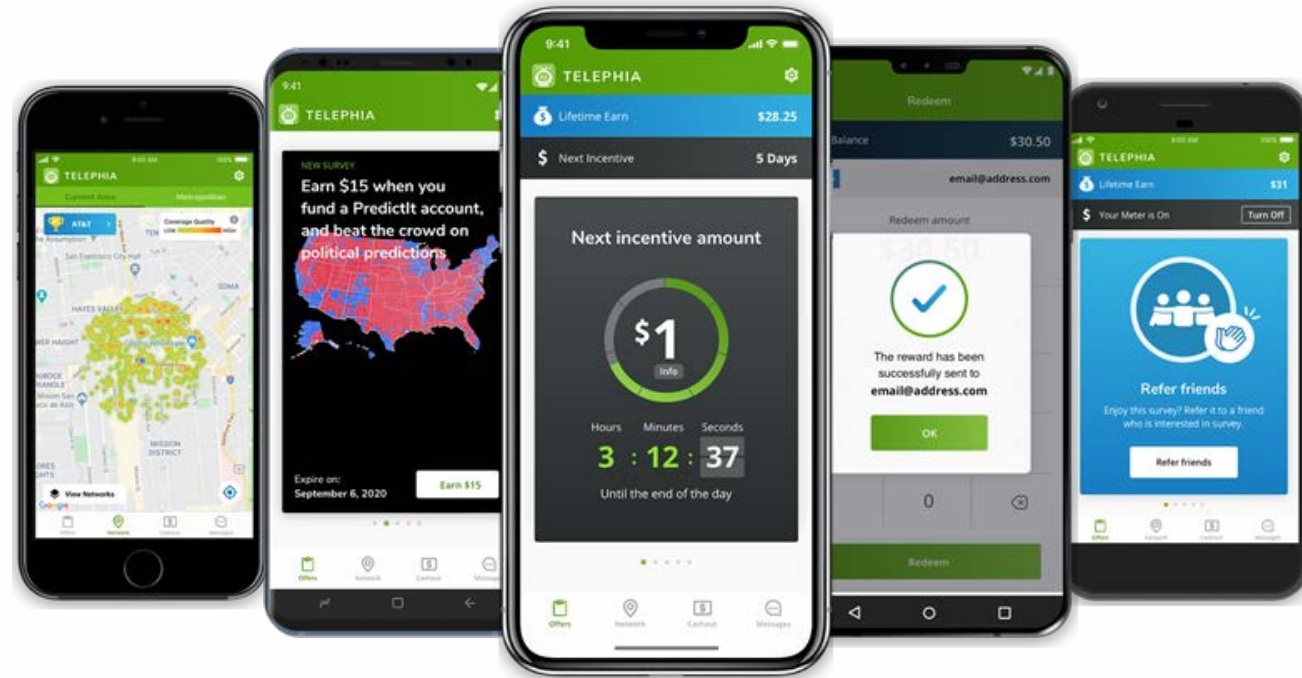


“

In addition to collecting primary data (quantitative exercises, uploading of media such as video and images, and qualitative in-depth exploratory tasks) we also capture data via telemetry...

”

HarrisX's proprietary Telephia application runs 24/7 on panelist smartphone devices



HarrisX's proprietary Telephia application is available on Android today and is planned for iOS in 2023

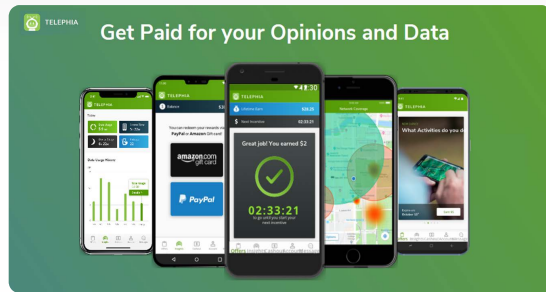
Panelist opt-in ensures privacy compliance and ongoing measurement

24/7 passive monitoring unlocks the layers behind the device and the user

Panelists are rewarded in cash in exchange for their opinions and data

Our proprietary Telephia app and panel enables the behavioral research of any specific consumer or voter group hix

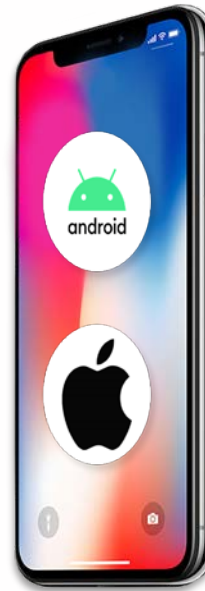
1 Privacy-friendly **behavioral analytics platform rewards respondents for opinions and data** in a way they can control. No PII collected.



NETWORK LAYER

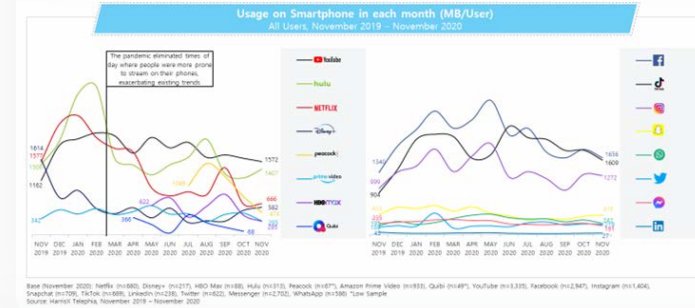
DEVICE LAYER

APPLICATION LAYER



2 Invaluable aggregated **trend data on consumers' behavior** on their devices **in real time**.

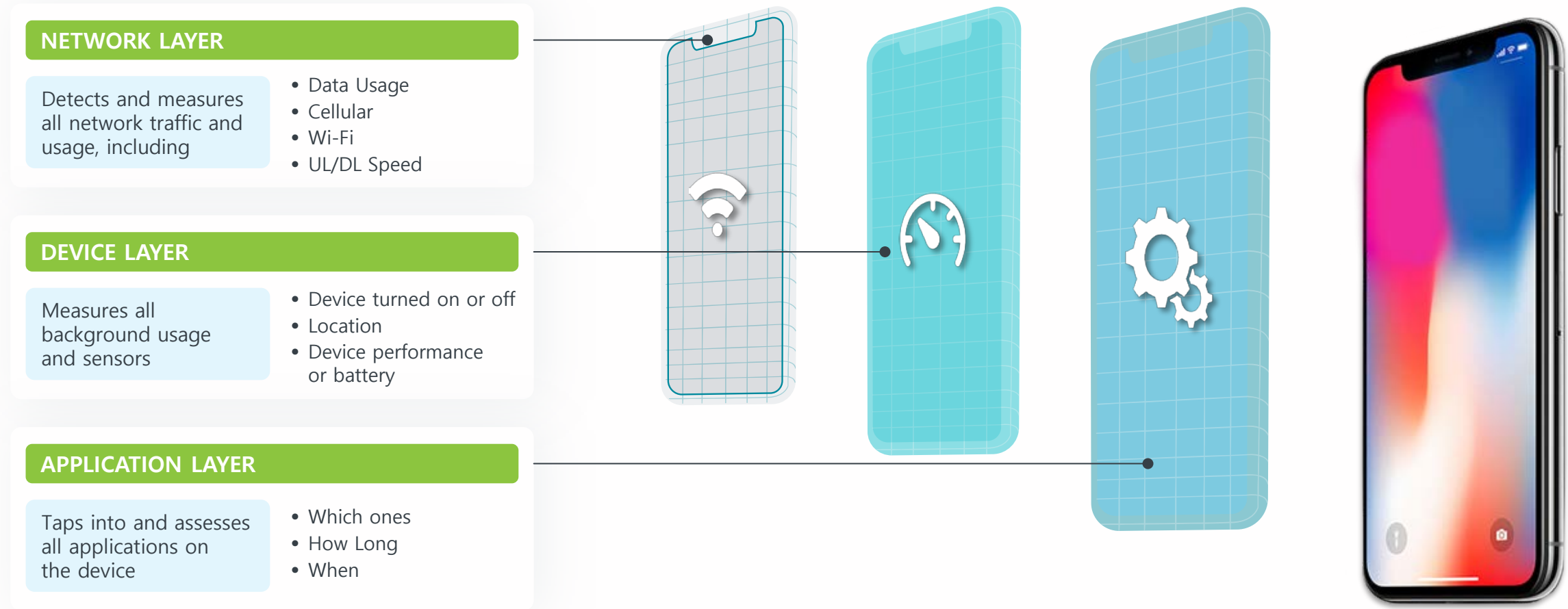
Behavioral data showed an early and deep streaming usage declines on Smartphones due to the external shock of the pandemic and lockdowns



3 And is a **powerful "profiling" tool** to find the next Soccer Mom.



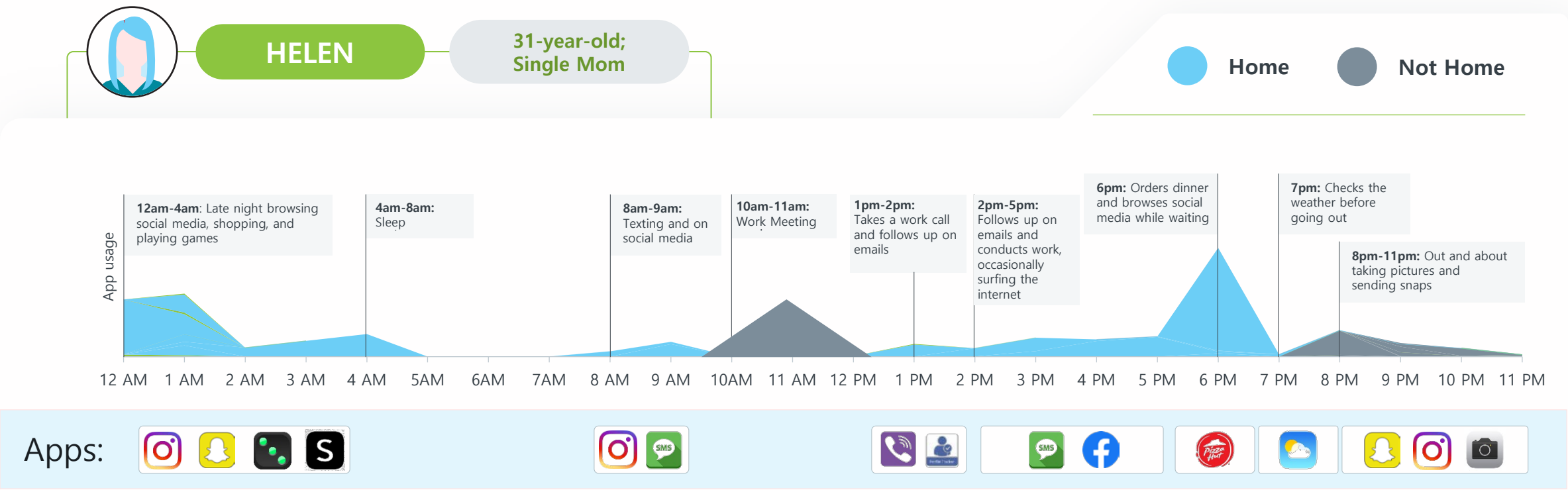
Telemetry allows us to passively monitor mobile devices across multiple layers in a privacy-compliant way



Telemetry enables us to track consumers, a day in the life of....

From our collected data, we know that Helen spends a lot of time between remote work at-home and commuting to clients. As a single mom, she conducts a lot of work from her phone and but also uses it to get ideas for where she might take her kids on the weekend from Instagram.

Using the telemetry feature of Telephia, we know she uses a lot of activity at home when she is doing work, and away when she is supporting her kids, both in areas with excellent and affordable T-Mobile cell and internet coverage. **We also know she is an AT&T subscriber – but our data tells us she would be happier as a T-Mobile subscriber!**



The benefits of using telemetry data in your research portfolio



Research initiatives/programs are more sophisticated and tailored via Telephia.



With Telephia, we connect with your current customers when and where it matters.

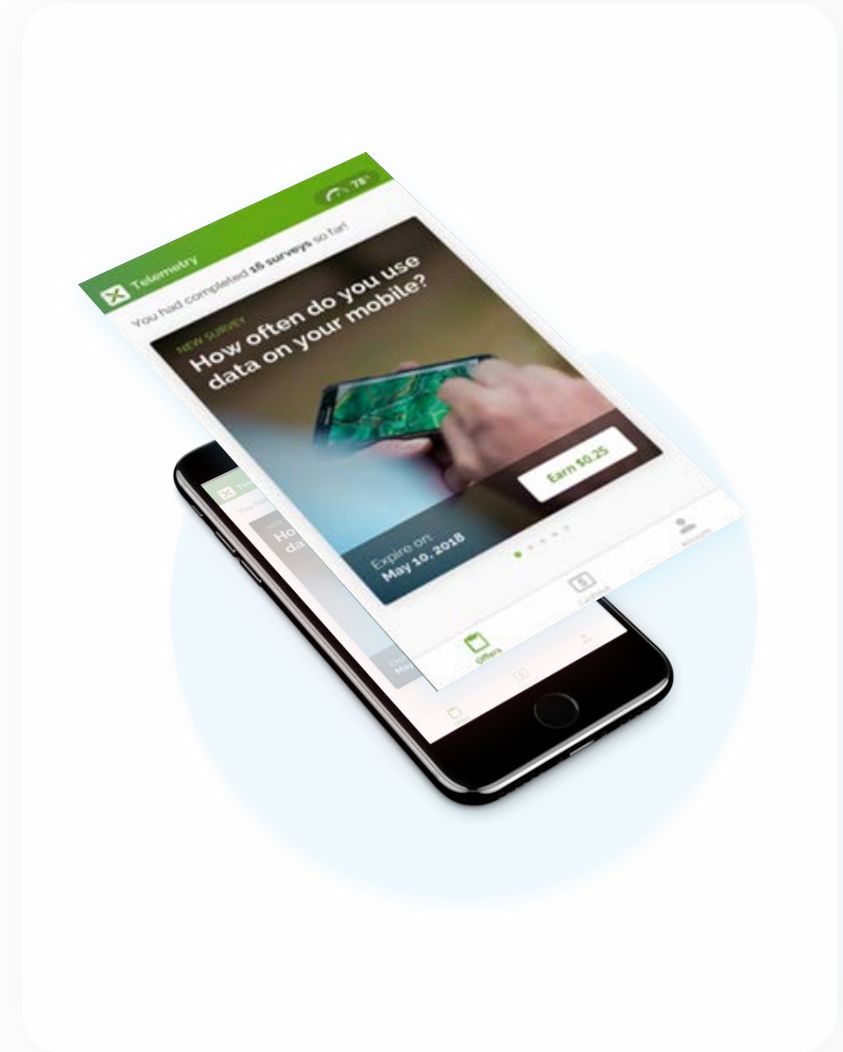


Telephia enables real-time, usage, and location-based surveys/polls and provides an engaging platform that also allows for qualitative exercises and interactive engagements.



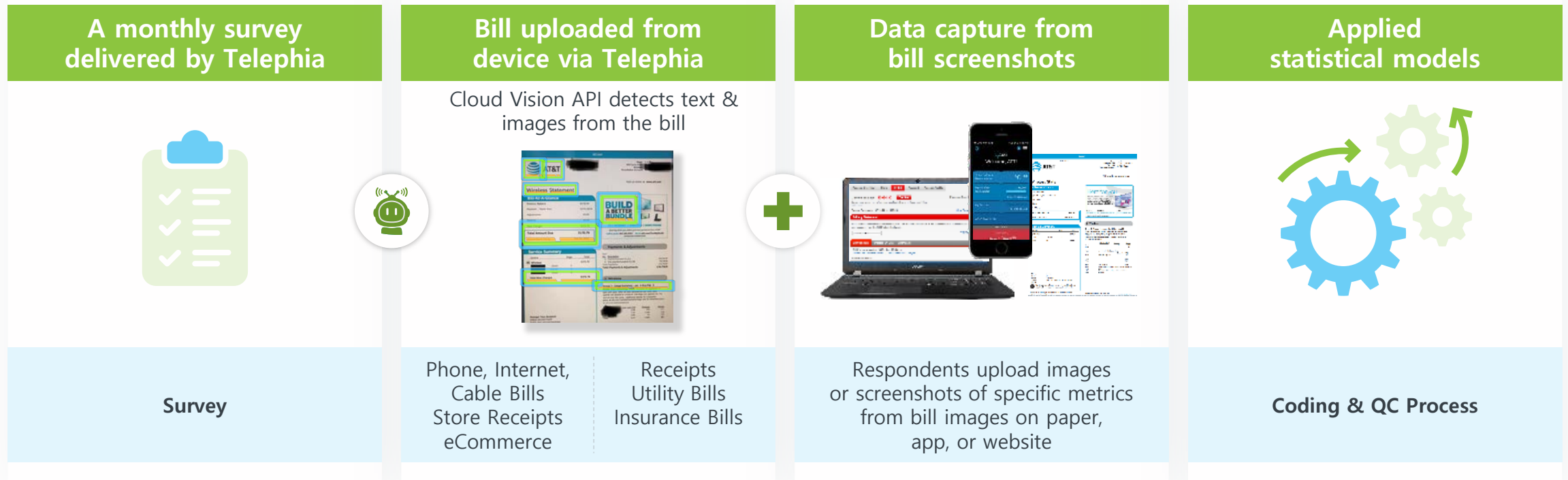
Top benefits to incorporating telemetry:

- Geographic based engagements based on cell and wifi coverage and performance against competitors in the "real world, real-time" marketplace
- Allows for in-the-moment polls
- Passive monitoring of app usage
- Ability to push interactions and research based on app usage
- Capture consumer attention – Before a competitor does



Telephia In Action – A Case Study:

Telephia + Billing Snapshots for a large mobile carrier



Telephia underpins our **Billing Snapshots solution** and rewards panelists for providing copies of actual bills or receipts, and survey-based feedback, so we can better capture consumer spending habits. Combining the pricing and usage with survey feedback gives us a richer understanding of customer satisfaction and intent to switch.

Telephia In Action – A Case Study: Speed Test for a Regional Carrier

View carrier performance versus the competition in the marketplace map

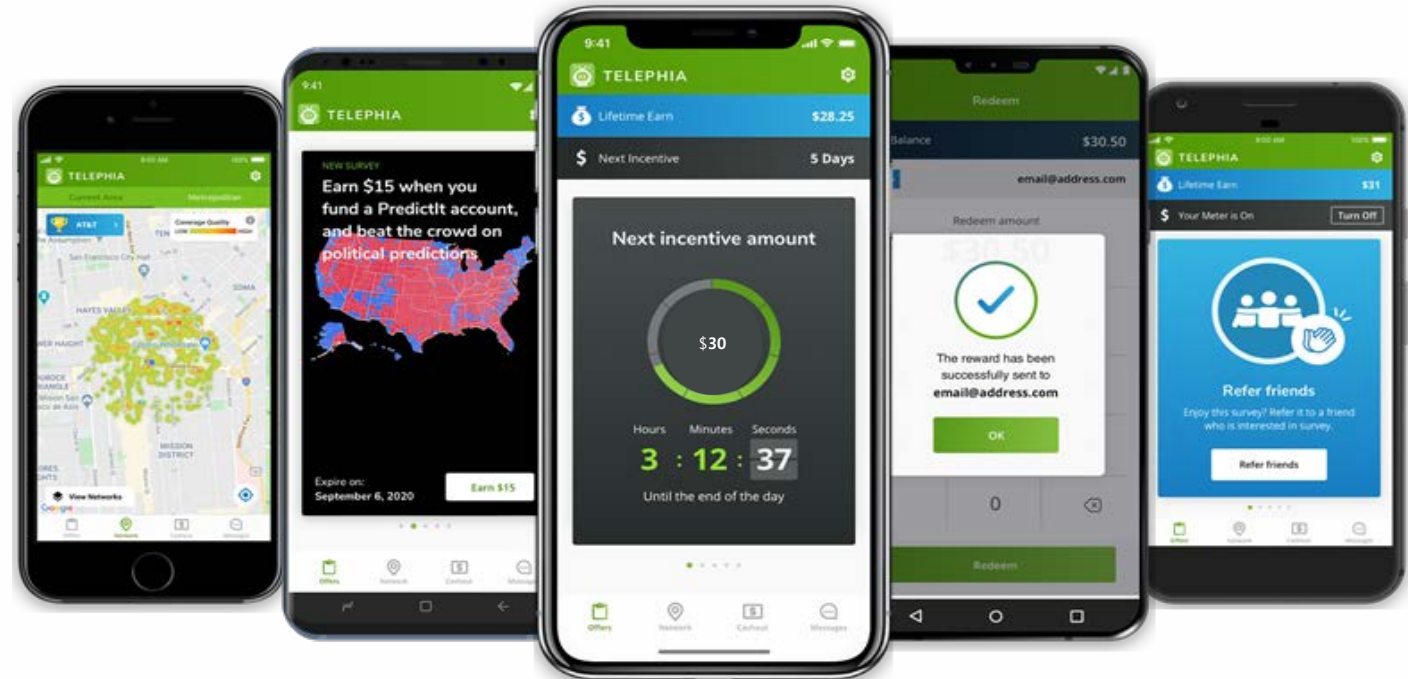
Geo-targeted follow-up for surveys in the wild

Assess QoS across WiFi and Cell in real-time in the wild

Get new product feedback before you launch

Rank new product features

Language localization for all audiences



We created a custom Influencer Panel for a regional wireless carrier. By leveraging Telephia, we were able to: custom-recruit a panel of respondents within their unique footprint, creating a community we could track and talk to with opportunities for engagement. This included regular delivery of passive speed tests plus daily diaries after key points in their day and receive feedback on their perceptions of satisfaction – Including on wifi and cell signal referenced against device activity and app usage – Mapped against actual carrier service indicators like upload and download speeds

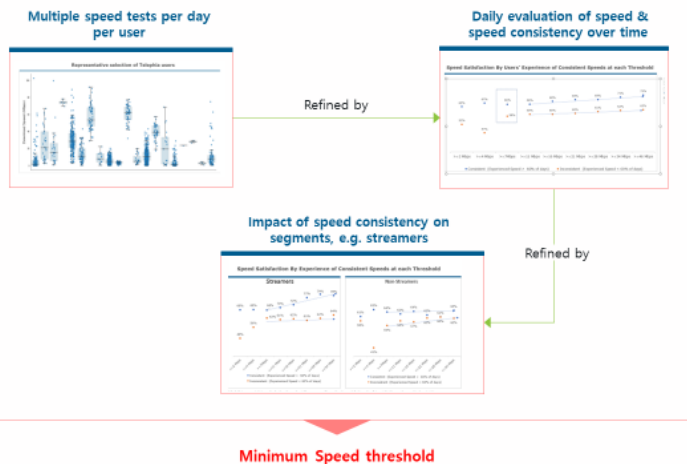
Example of speed study with Telephia: Where will investment in network pay off in terms of customer satisfaction?

Objective



- Determine a '**threshold speed**' below which satisfaction drops to unsatisfactory levels
- Determine a '**ceiling speed**' above which satisfaction gains are marginal

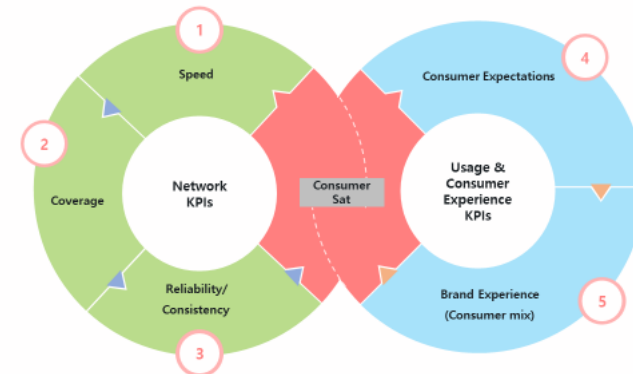
Telephia Study at-a-glance (Daily evaluation of speed experience)



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Five drivers of data network satisfaction, but some proved to be stronger than others



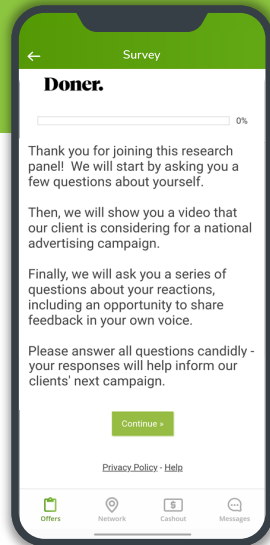
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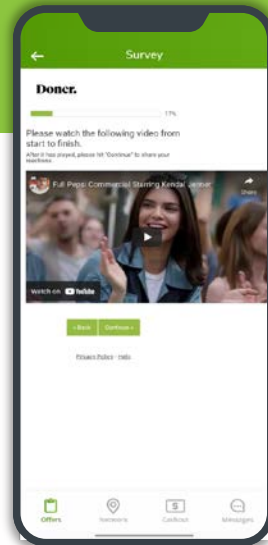
Telephia In Action – A Case Study:

Telephia + Creative Testing for Ad Agency Partner Doner

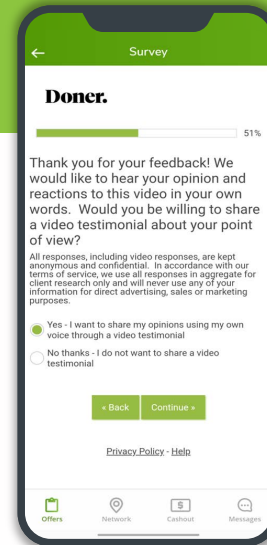
Survey Opens and Panelists Stay Within Telephia Environment



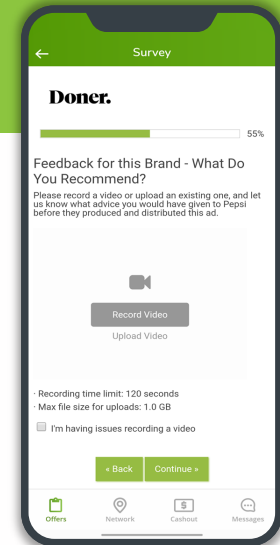
Questionnaires Can Include Any Type of Public or Private Multimedia



Advanced Logic Allows for Questionnaire Complexity

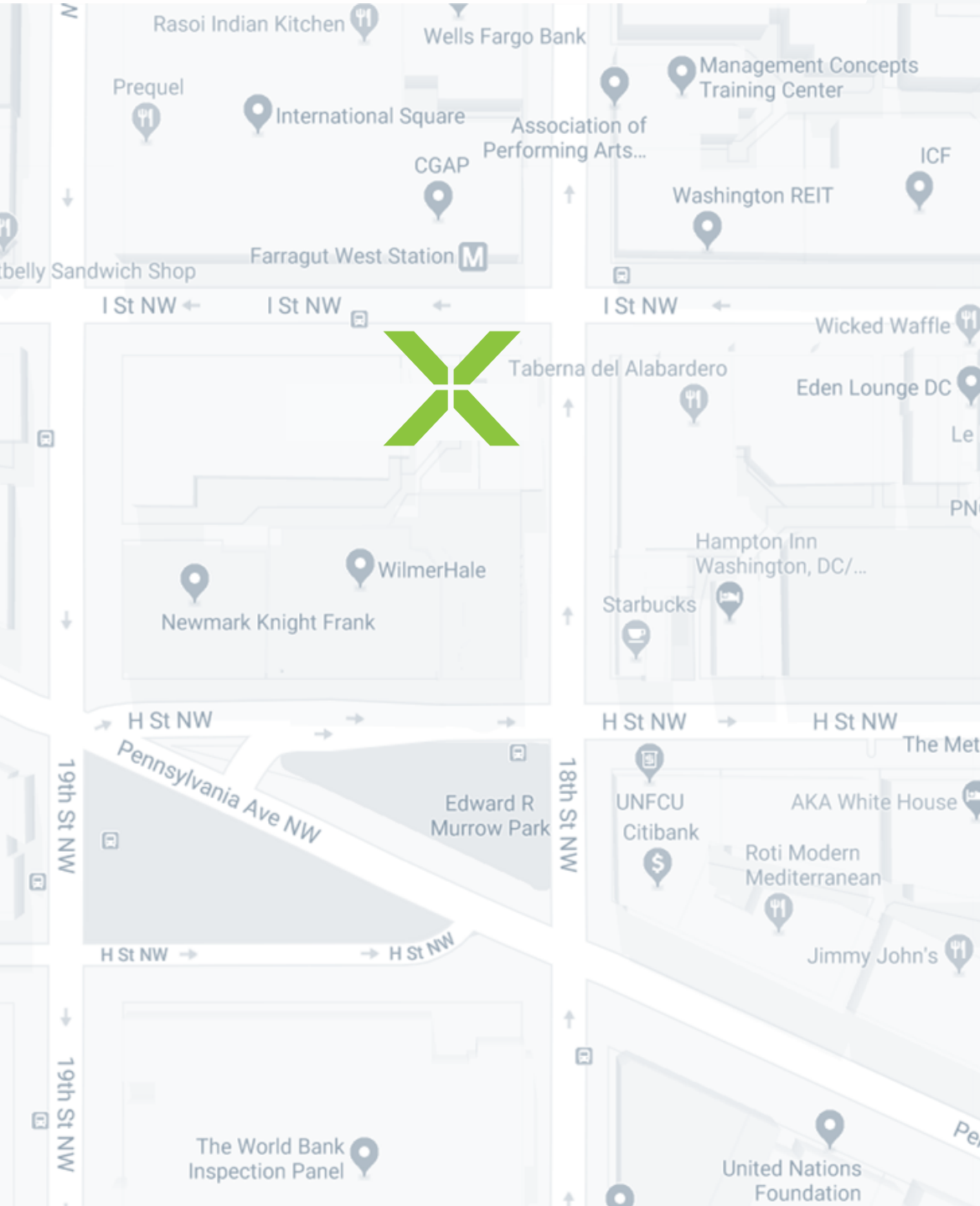


Panelists Can Be Prompted to Upload Audio, Video, Text and More



Telephia **supports a multimedia display** and contributions like video diaries, audio feedback, and free-form journaling. Testing creative concepts, storyboards, messaging, and full video ads allows optimization before campaign launch.

The app icon, skin, buttons, colors, and branding can be fully customized to any company's or brand's specifications, so Telephia community members feel like they are as integrated with your brand as you want them to be.



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