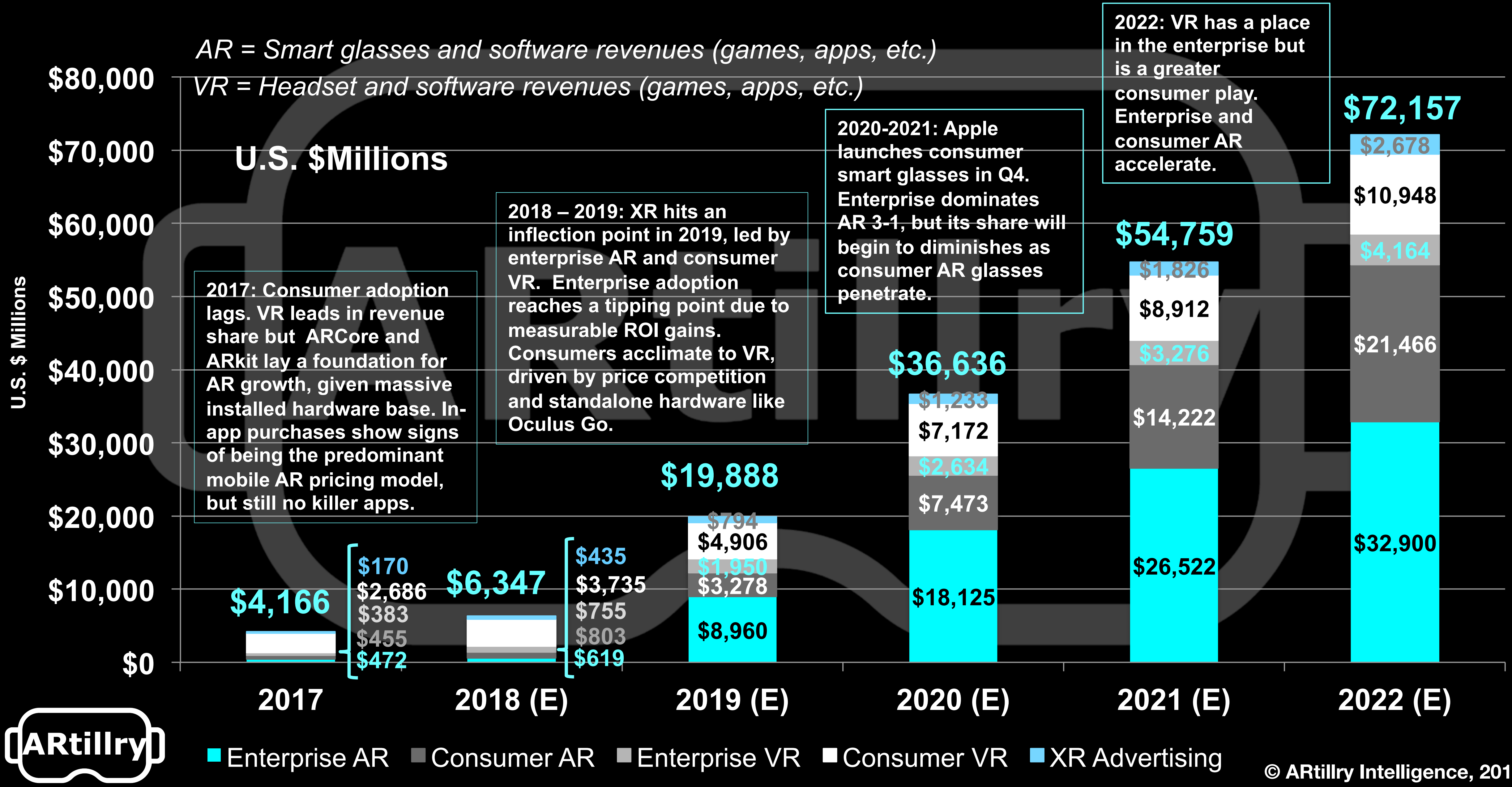
CONSUMER AR: WHEN, HOW AND HOW BIG?

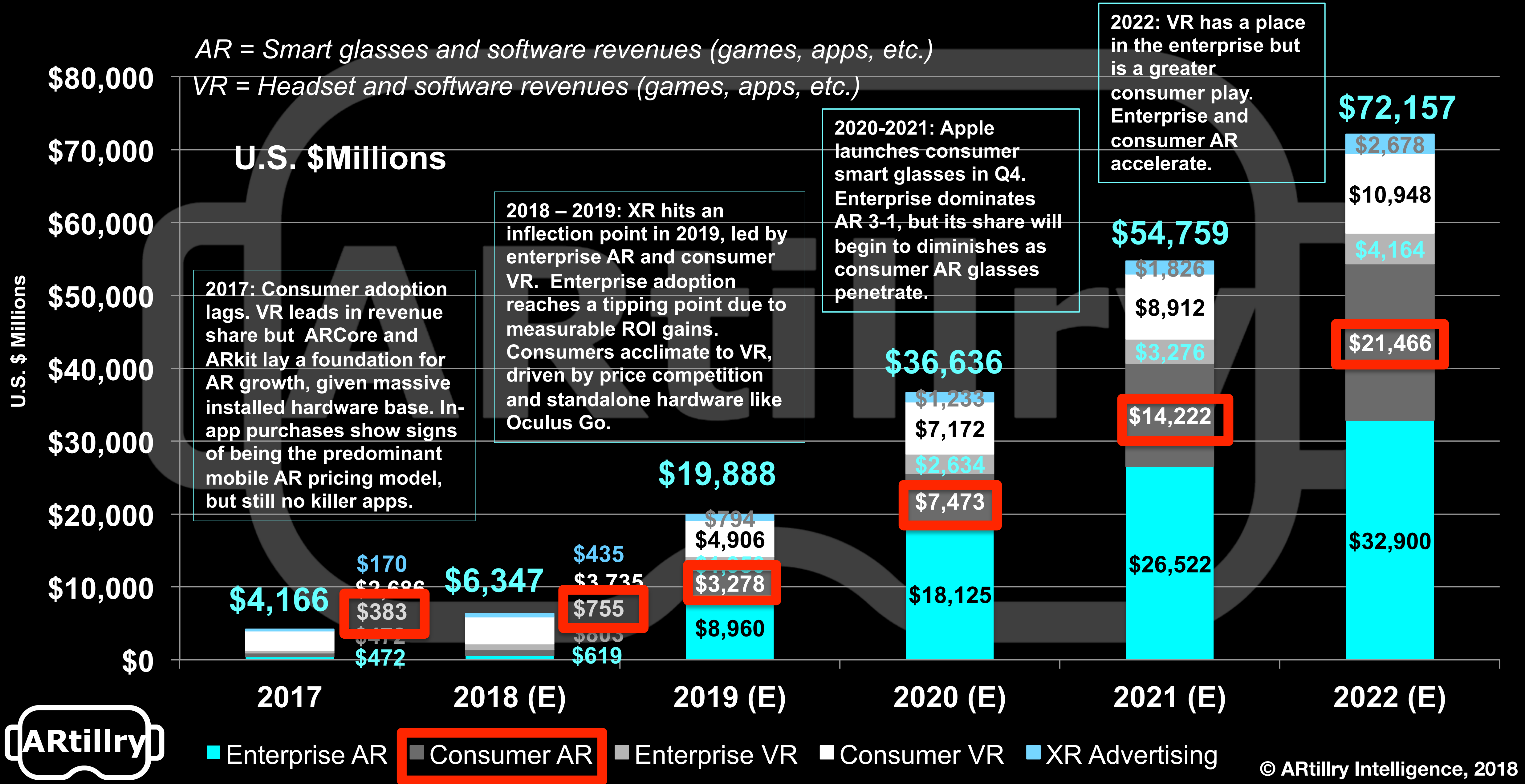
MIKE BOLAND, CHIEF ANALYST,
ARTILLRY INTELLIGENCE

AWE NITE: MAY 17, 2018

GLOBAL XR REVENUE BREAKDOWN

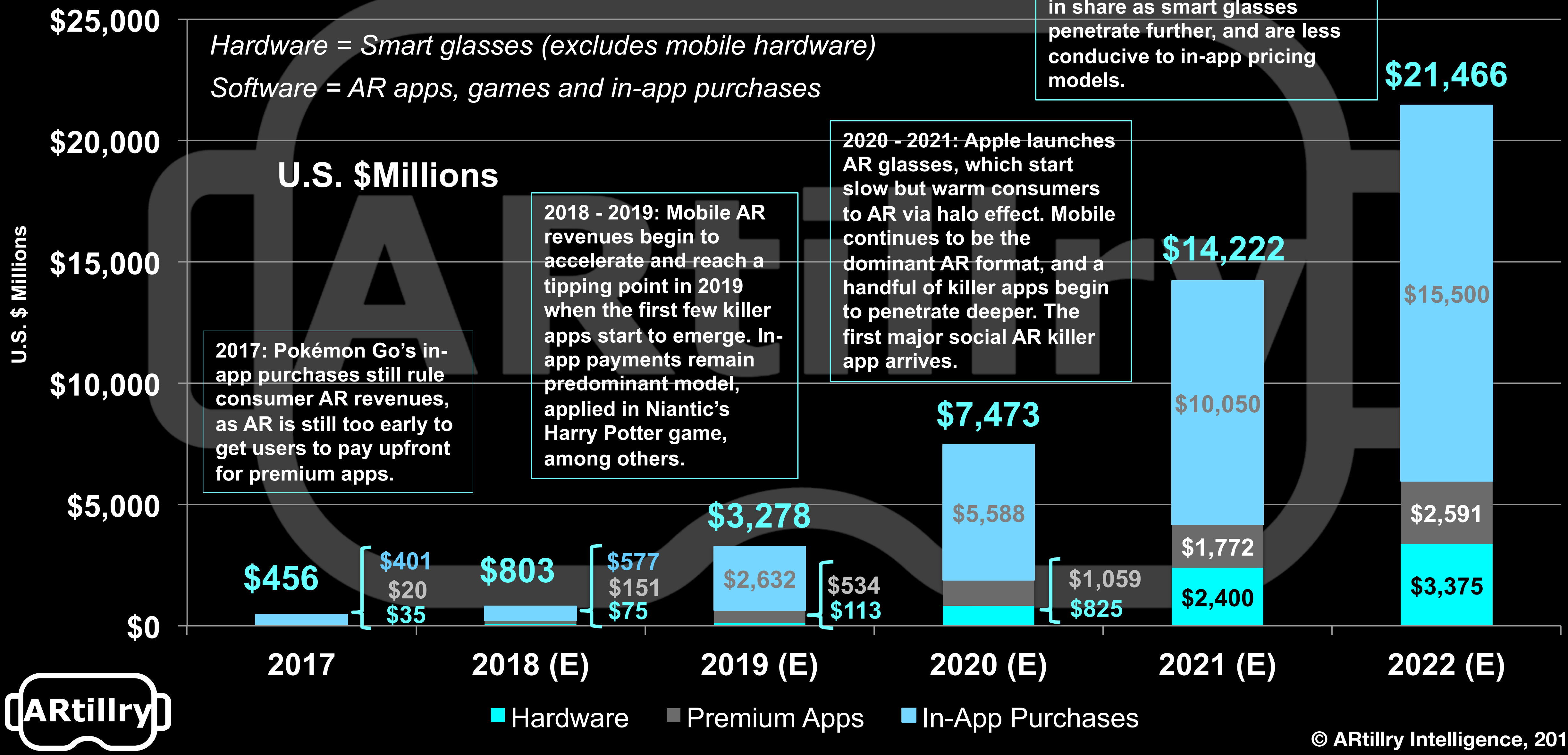


GLOBAL XR REVENUE BREAKDOWN



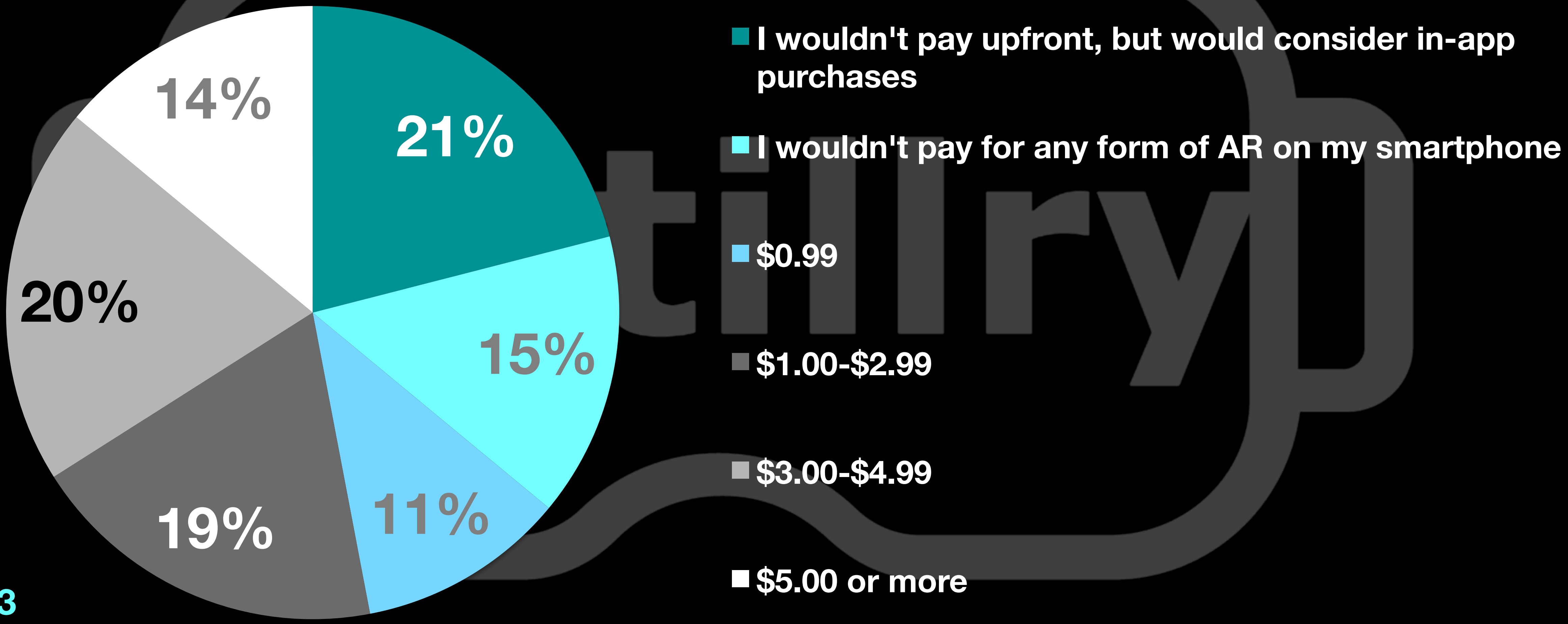
CONSUMER AR DRILLDOWN

(DETAILED VIEW)



MOBILE AR APP PRICING (CURRENT USERS)

WHAT IS THE MOST YOU WOULD PAY FOR A MOBILE AR APP?



N= 703

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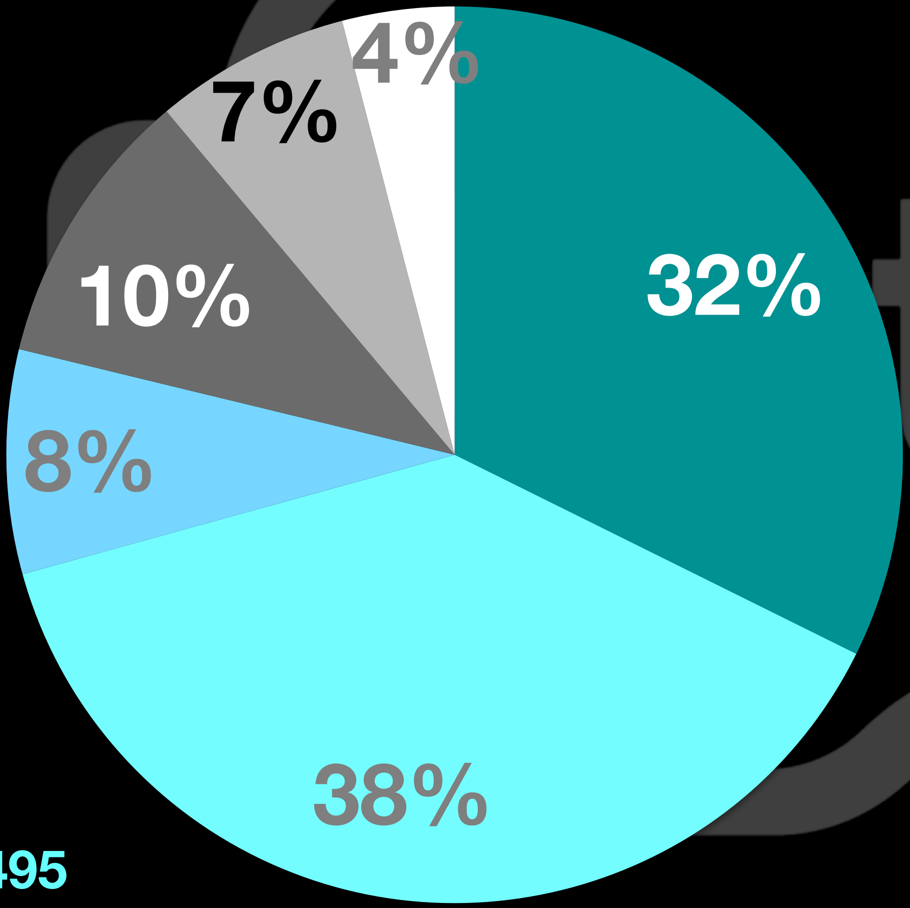
MOBILE AR APP PRICING (NON- USERS)

WHAT IS THE MOST YOU WOULD PAY FOR A MOBILE AR APP?



- I wouldn't pay upfront, but would consider in-app purchases
- I wouldn't pay for any form of AR on my smartphone
- $0.99
- $1.00-$2.99
- $3.00-$4.99
- $5.00 or more

N= 1,495

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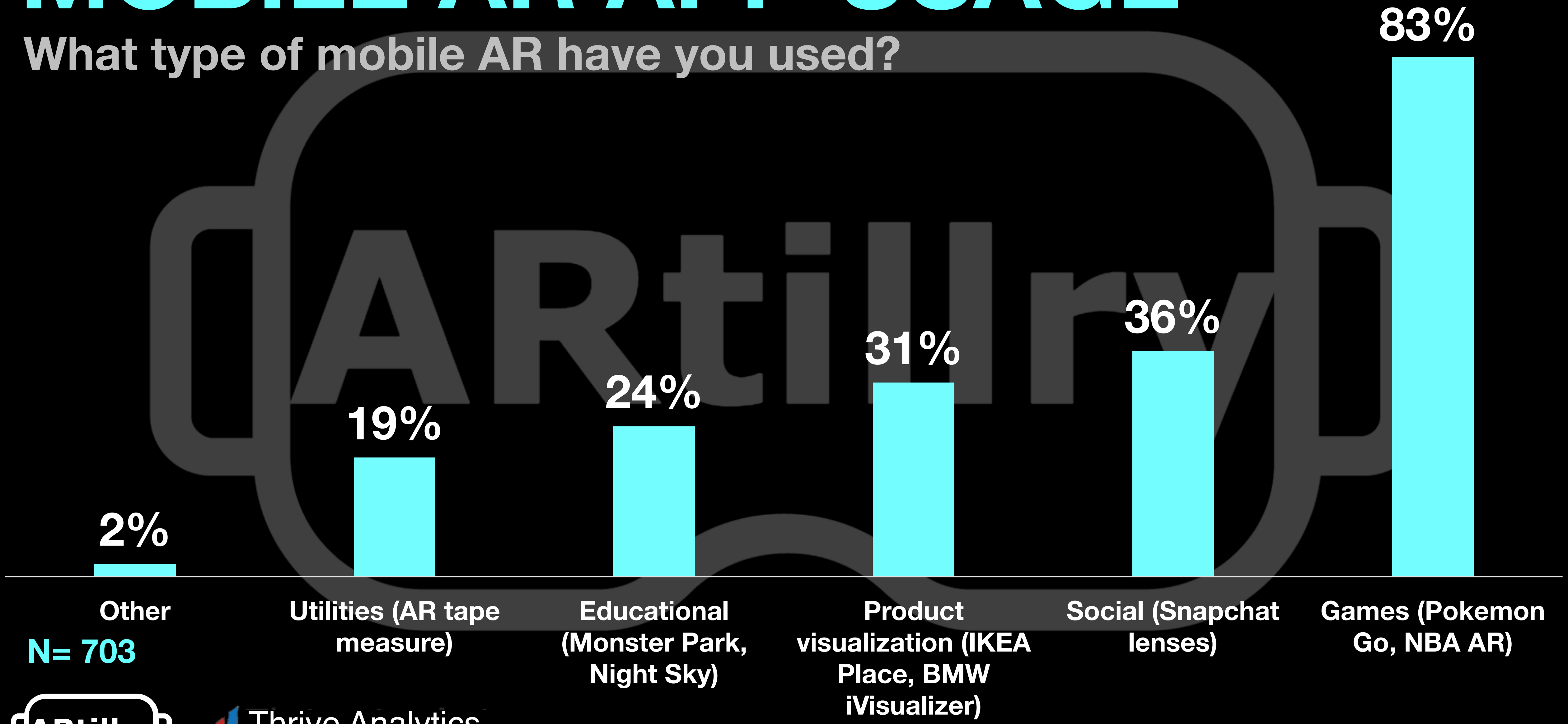
MOBILE AR APP USAGE

What type of mobile AR have you used?



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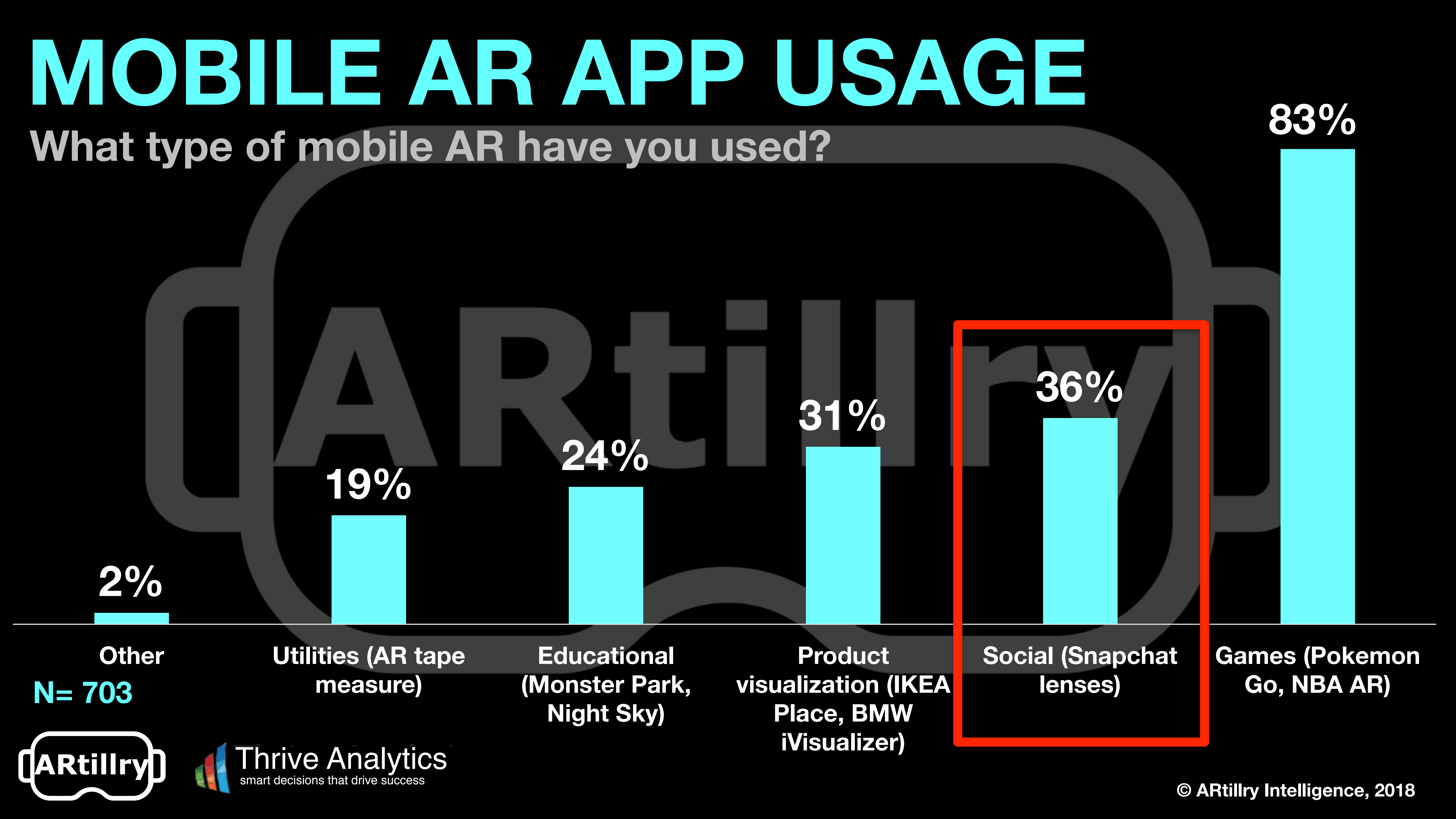
MOBILE AR APP USAGE
What type of mobile AR have you used?
2%
19%
24%
31%
36%
83%
Other
Utilities (AR tape measure)
Educational (Monster Park, Night Sky)
Product visualization (IKEA Place, BMW iVisualizer)
Social (Snapchat lenses)
Games (Pokemon Go, NBA AR)
N= 703
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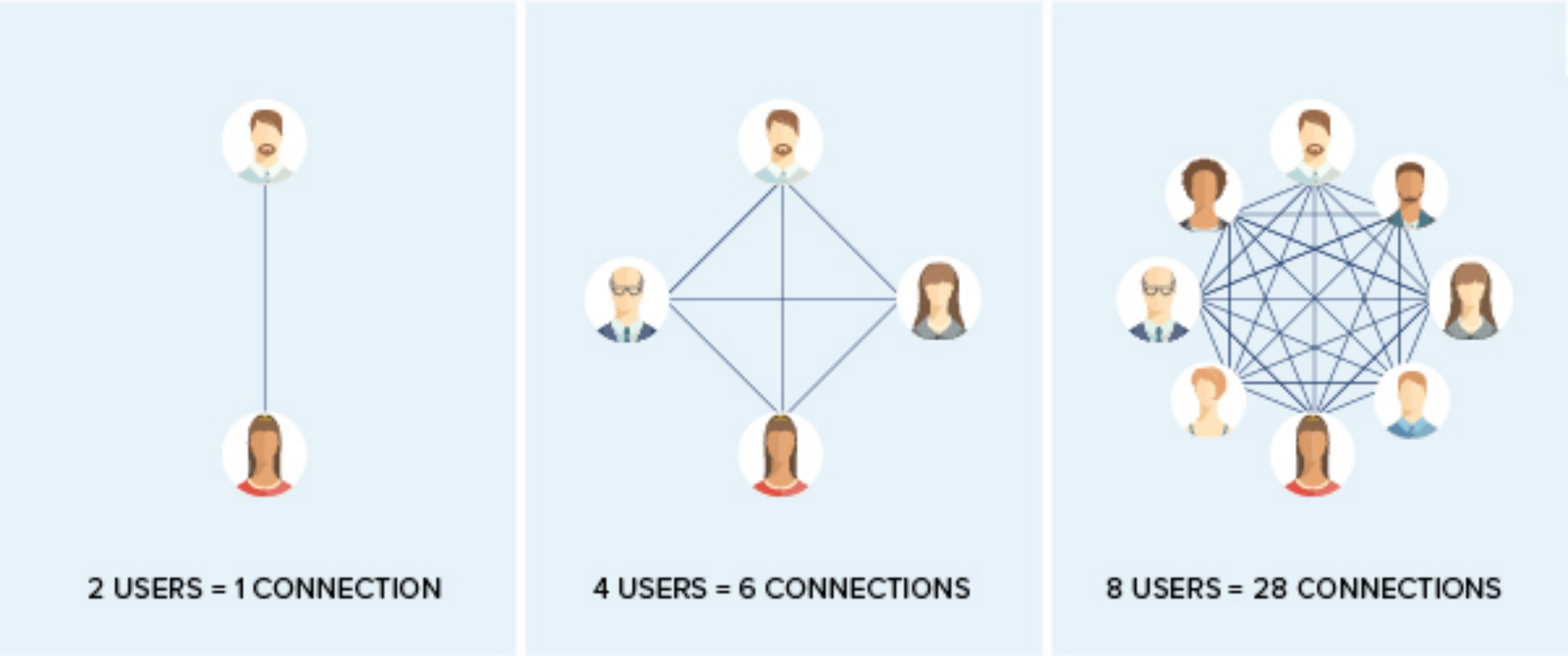
“There’s been an evolution of killer apps on the internet and I suspect that the same thing is going to happen in AR… I keep hearing that AR and VR are useful for gaming, and training. Somewhere in there is going to be the killer app and I’m confident it will be networked.”
-- Bob Metcalfe



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SOCIAL AR LEADING INDICATOR:

Snapchat Lenses are used by **70 million people per day**, at an average of **3 minutes each**, which translates to **500 years** of play time per day.

But… that only scratches the surface. The real action is in *syncronous* AR.

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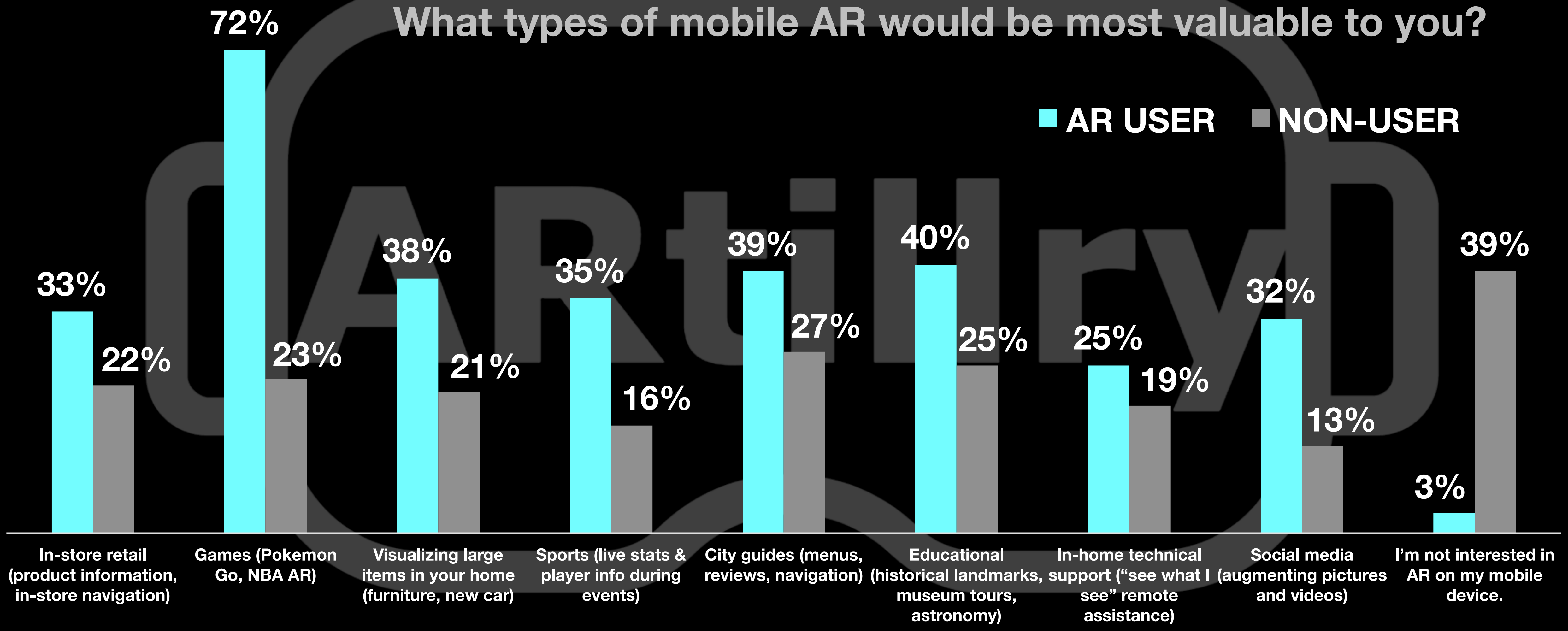
MOBILE AR APPS IN DEMAND

What types of mobile AR would be most valuable to you?



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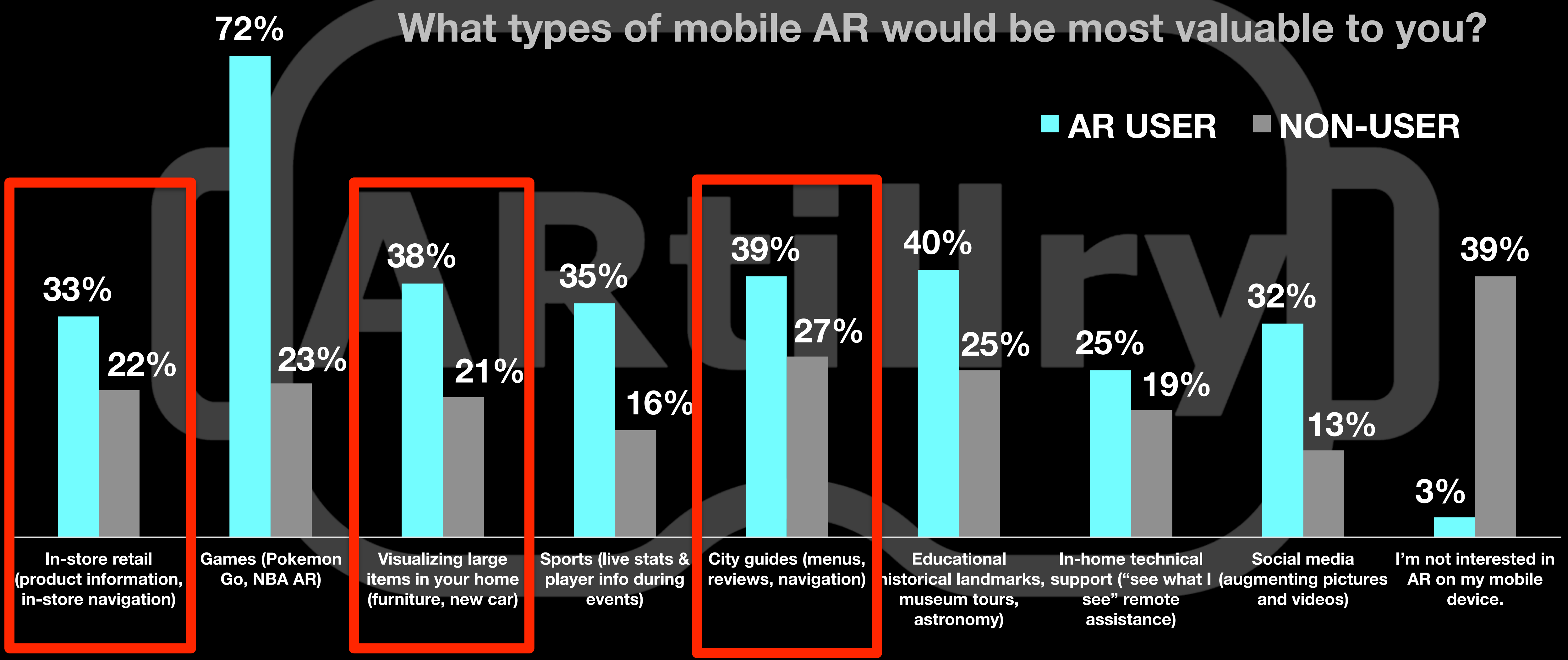
N= 2,198

MOBILE AR APPS IN DEMAND



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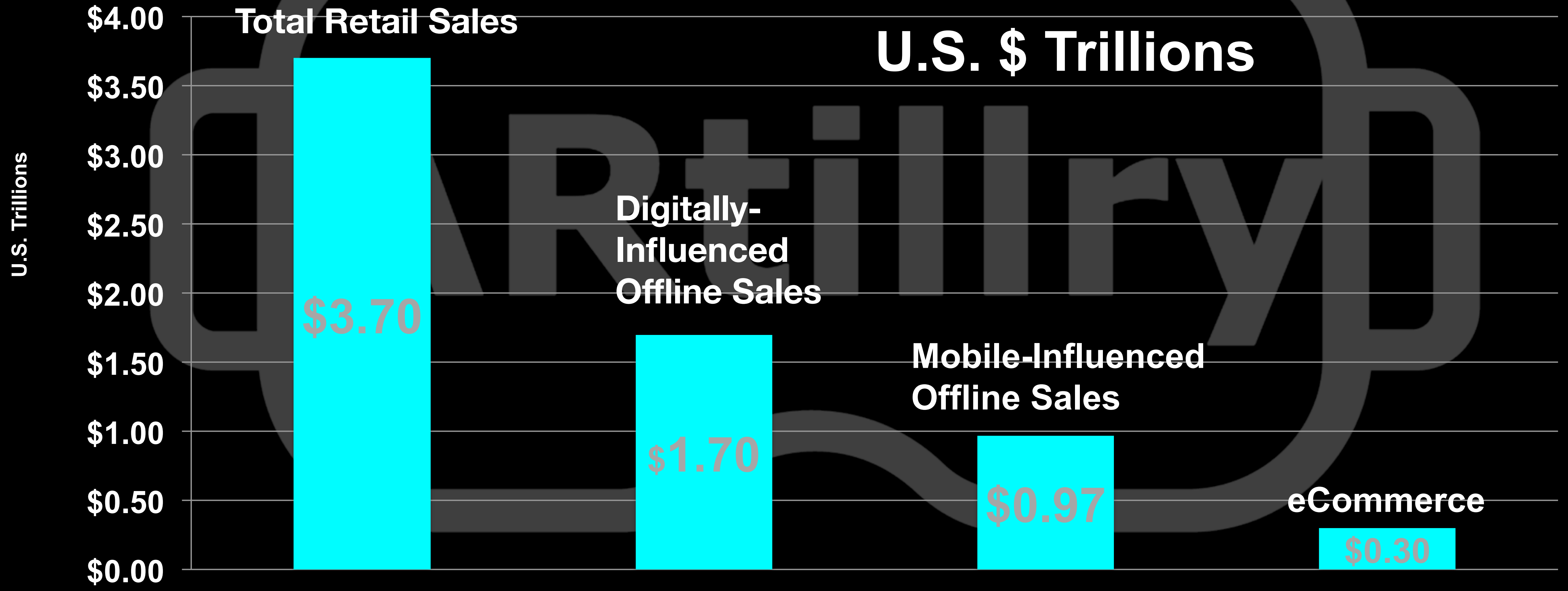
N= 2,198

U.S. CONSUMER SPENDING

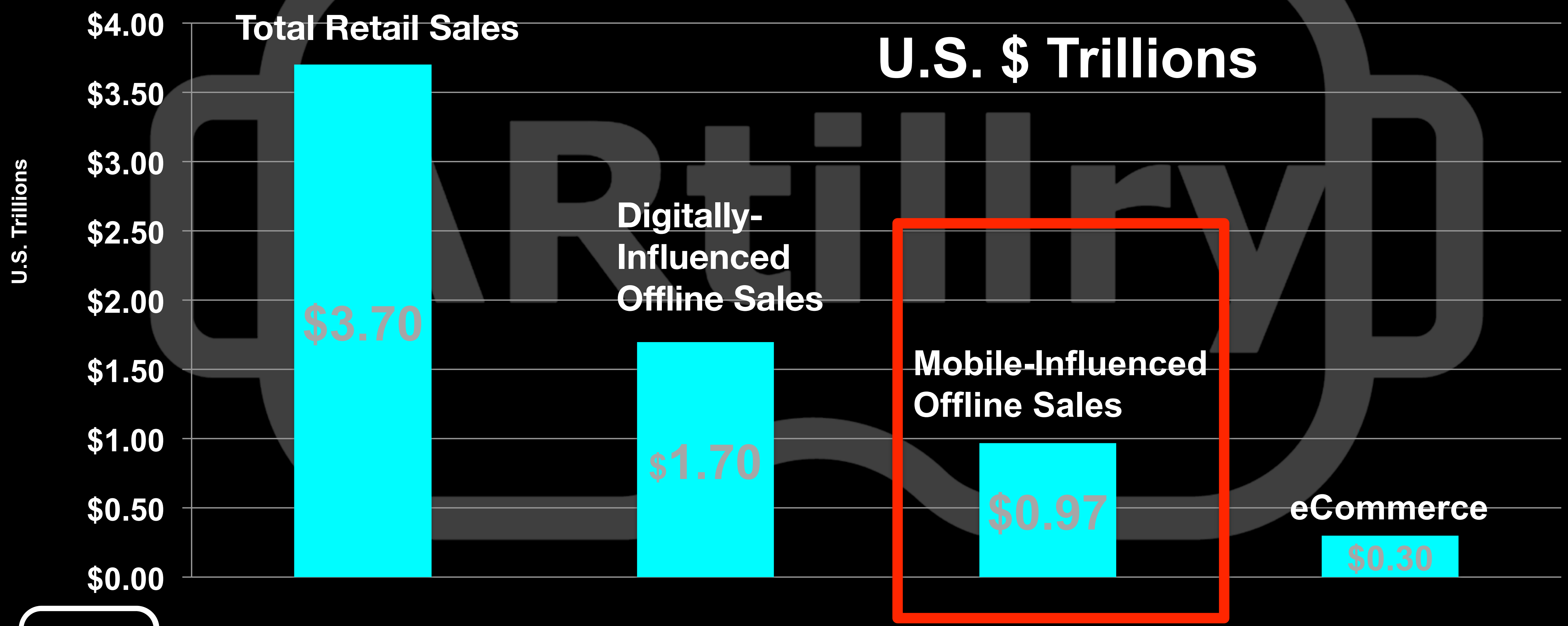
AR'S ADDRESSABLE MARKET WILL MAP TO WHERE THE MONEY IS BEING SPENT



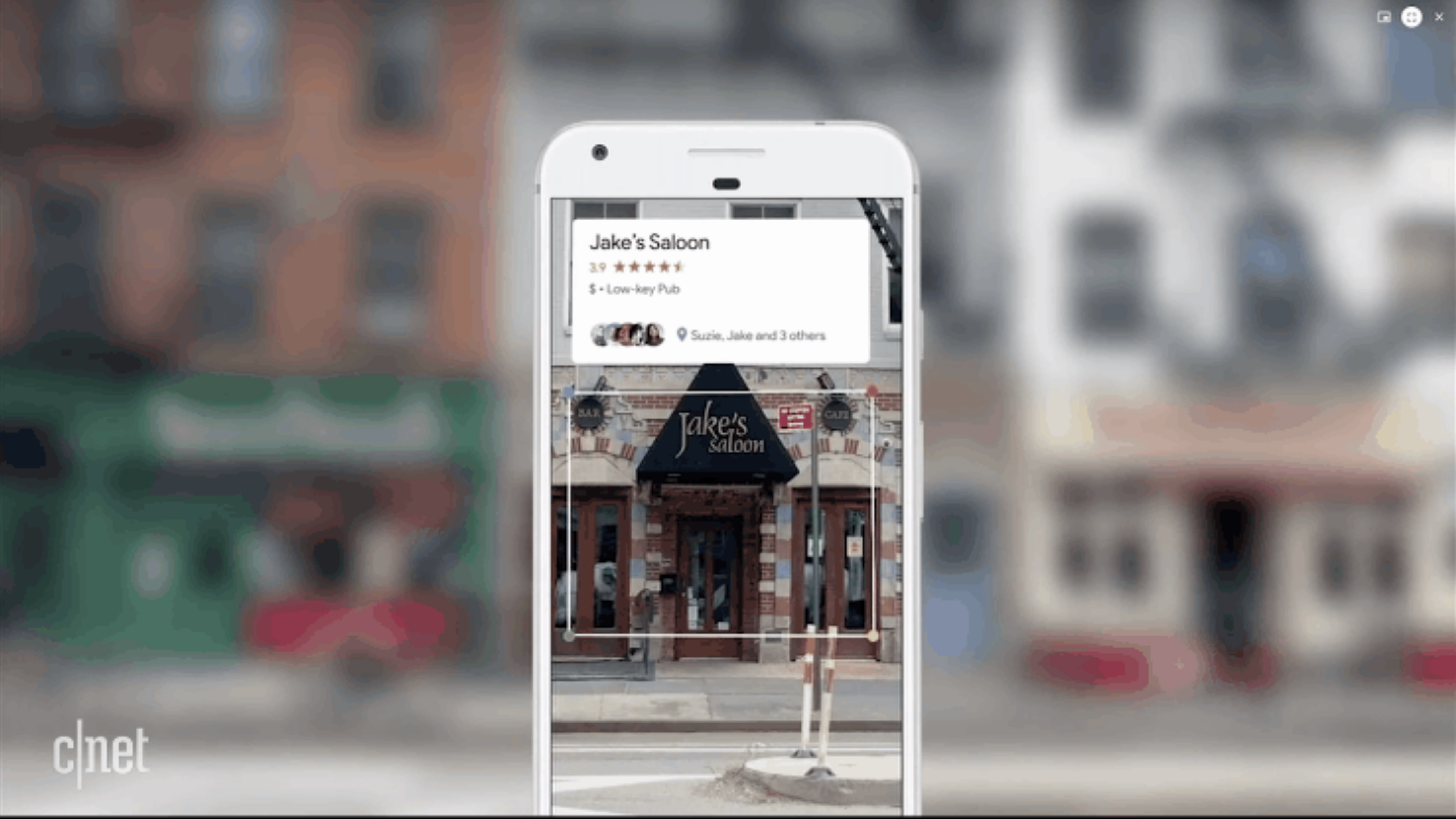
Source: Deloitte Digital

U.S. CONSUMER SPENDING

AR'S ADDRESSABLE MARKET WILL MAP TO WHERE THE MONEY IS BEING SPENT



Source: Deloitte Digital


Jake's Saloon
3.9
$ • Low-key Pub
Suzie, Jake and 3 others
Jake's saloon
BAR
CAFE
cnet

WILD CARDS

- Persistence
  - Will Google's cloud anchors work as advertised?
  - Will Apple announce Multi-player at WWDC? What else?
  - Will better technology come from focused startups?
- Occlusion
  - Items two blocks away can't appear in view
  - This has turned off many AR newbies expecting logical digital interactions
- Fragmentation
  - Will platform interoperability slow AR's growth?
  - Will the AR cloud be fragmented by individual interests (and is that a bad thing)?
  - Digital asset ownership, protection, compensation and incentive
- Formats
  - What will be the delivery vessel: Apps vs. Web XR?
  - Common inputs and gestural languages, evolving UX standards
- Native Product Development
  - iPhone killer apps took 2-3 years to emerge (Uber, Waze, Foursquare, etc.)
  - Those apps were far from what anyone imagined in 2007
  - AR's killer apps will be far from what anyone imagined in 2017

VIDEO COMPANION

(CLICK LINK TO PLAY VIDEO)

https://youtu.be/_UTq8K_wbSM

ABOUT ARTILLRY INTELLIGENCE

ARtillry is a publication and intelligence firm that examines augmented reality (AR) and virtual reality (VR). Through writings, data and multimedia, it provides deep and analytical views into the industry's biggest players and opportunities. It's about insights, not cheerleading.

Run by career analyst and journalist Mike Boland, coverage is grounded in a disciplined and journalistic approach. It also maintains a business angle: Though fun and games permeate VR and AR (especially the former) long-term cultural, technological and financial implications are primary.

Learn more at **https://artillry.co/about/**

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METHODOLOGY

ARtillry Intelligence follows disciplined best practices in market sizing and forecasting, developed and reinforced through its principles' 15 years in research and intelligence in the tech sector. This includes the past 2.5 years covering AR & VR as a main focus.

This report focuses on AR and VR revenue projections in various sub-sectors and product areas. *ARtillry Intelligence* has built financial models that are customized to the specific dynamics and unit economics of each. These include variables like unit sales, company revenues, pricing trends, market trajectory and several other micro and macro factors that *ARtillry Intelligence* tracks.

This approach combines *top-down* and *bottom-up* forecasting methodologies.. Together, confidence is achieved through triangulating revenues and projections in a disciplined way. For more information on what's included and not included in the forecast (a key consideration when evaluating the figures) see the corresponding slide in the introductory section of this report.

More about ARtillry Intelligence's market-sizing credentials can be found at **http://www.mikebo.land/forecasting**

DISCLOSURE AND ETHICS POLICY

ARtillry has no financial stake in the companies mentioned in this report, nor received payment for its production. With respect to market sizing, ARtillry remains independent of players and practitioners in the sectors it covers. It doesn't perform paid services or consulting for such companies, thus mitigating bias — real or perceived — in market sizing and industry revenue projections. ARtillry's disclosure and ethics policy can be seen in full at **https://artillry.co/about/disclosure-and-ethics-policy/**

WHAT'S COVERED IN FORECAST DATA

The market sizing figures in this report include enterprise AR and VR products. These are each subdivided by hardware and software.

VR hardware includes headsets and bundled input or tracking devices, but does *not* include gaming consoles, smartphones and PCs required to run some headsets. Similarly with AR, smart glasses are included in revenue projections, but mobile devices (such iPhone sales) are not.

INCLUDED

AR & VR Hardware (Headsets, smart glasses)
AR & VR Software (Enterprise productivity software, games, apps, in-app purchases)
Bundled Hardware (Input or tracking devices)
XR Advertising (AR Lenses, display ads in VR)

NOT INCLUDED*

PC or Gaming Consoles (e.g. Playstation4)
Smartphones (e.g. iPhone to run ARkit apps)
AR & VR Services: (e.g. Enterprise consulting)
VR Cameras (e.g. 360 degree camera hardware)

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*We will expand category inclusions in future forecasts

CONTACT & REFERENCE

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