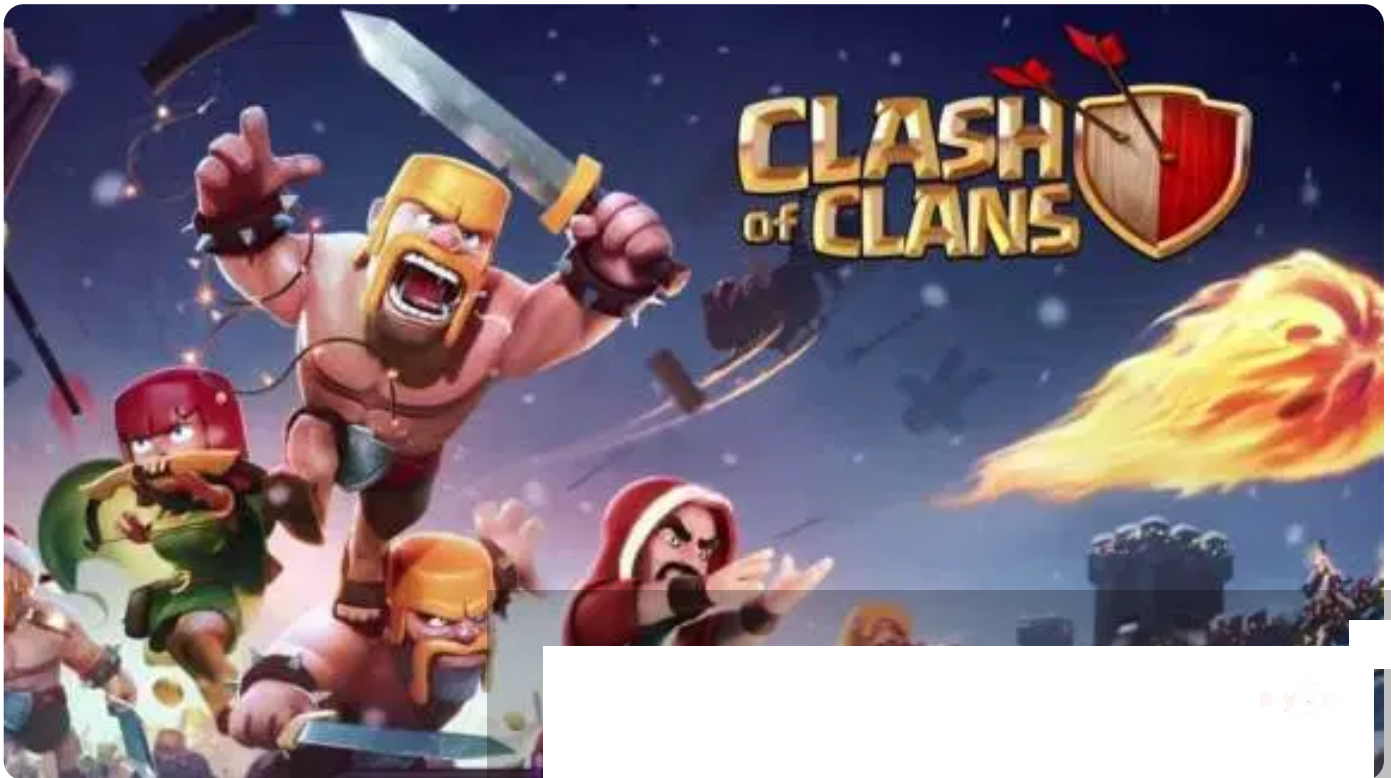


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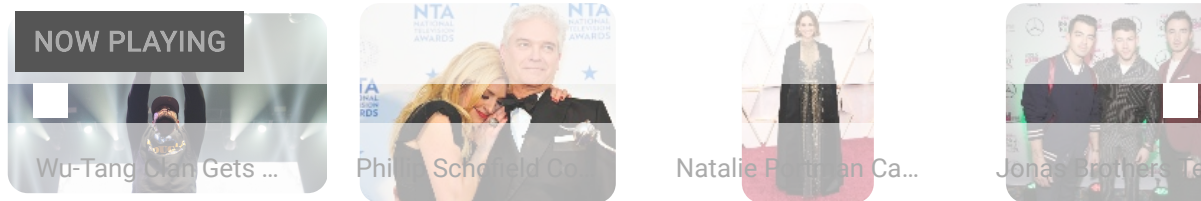
# When it comes to iOS app spending, men flock to Clash of Clans, women prefer Candy Crush

CHRIS O'BRIEN @OBRIEN FEBRUARY 7, 2017 2:37 AM



Mobile hit Clash of Clans.  
Image Credit: Supercell

A new study from the University of S  
Apple App store, particularly when it

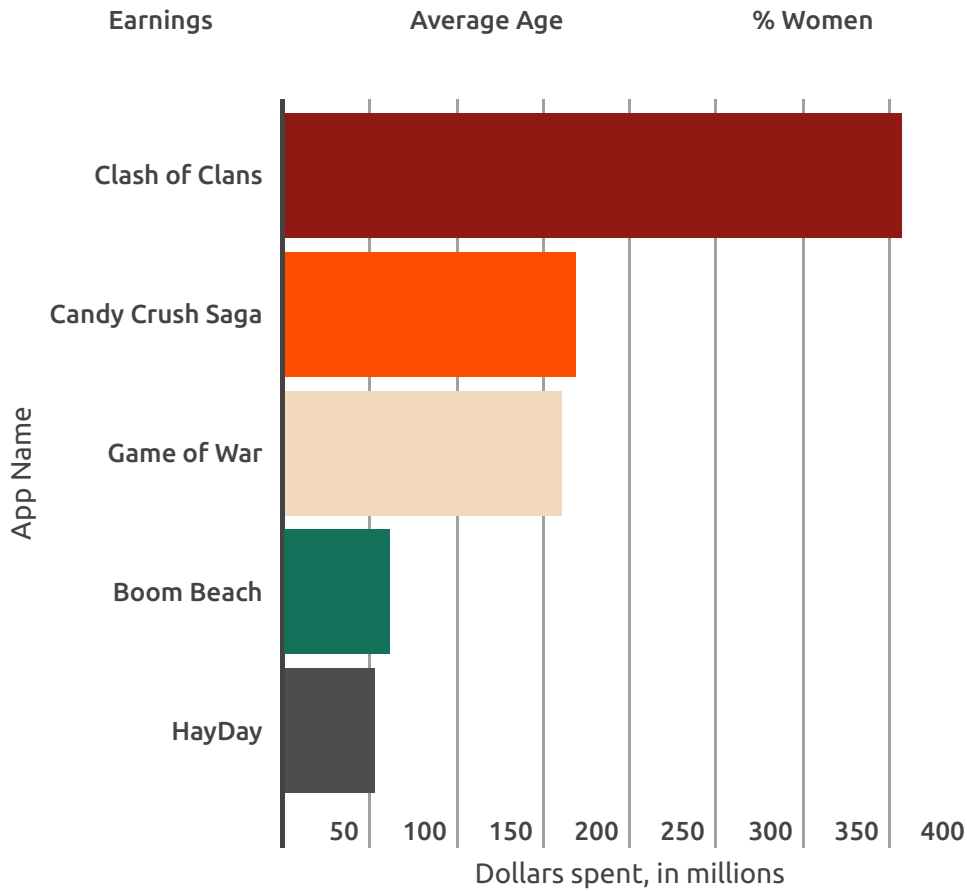


Researchers at the Information Sciences Institute at the USC Viterbi School of Engineering examined 776 million App Store purchases, worth \$4.6 billion. The purchases covered everything from buying the app to in-app purchases. The latter accounts for 61 percent of all app spending, the study found.

The study noted that “an overwhelming number” of App Store purchases are made by a tiny slice of users who make in-app purchases on their iPhones and iPads for virtual goods and lives in Candy Crush Saga and Clash of Clans. Incredibly, just 1 percent of spenders accounted for 59 percent of all money spent on in-app purchases, according to the study.

When it comes to spending, the most popular apps in the App Store, based on spending, include three of the four games made by Finland’s Supercell: Clash of Clans, Boom Beach, and Hay Day. The other two in the top

Regarding the question of gender, 70 percent of in-app purchases were made by men. In contrast, women accounted for 29 percent of in-app purchases. Candy Crush Saga, which was followed closely by Clash of Clans, was the most popular app among women.



USC researchers analyzed millions of purchase records to identify patterns in app purchases on phones and devices. They found that a small percentage of customers were responsible for more than half the purchases made. These customers were more likely to be male and older, and less likely to be from the U.S.

SOURCE: Yahoo! users, March 2014-June 2015

Share



“It is very, very difficult to make money as an author and a project leader at the In statement. “App-making is a gold mi

The paper, entitled “iPhone’s Digital presented this week at the Internatic

JEREMY HORWITZ @HORWITZ FEBRUARY 11, 2020 09:28 AM

Feature



Image Credit: Alejandra Sarmiento / VentureBeat

Twenty years ago, the average person likely owned a single camera, and security cameras inside homes were nearly as rare as they were in cars. But as we enter the 2020s, cameras have become ubiquitous. Most people today have two or more cameras on each smartphone, one or two in each computer and tablet, and at least one — a backup camera — in their car. They may also have doorbell cameras to watch for visitors and package theft or Nest Cams to provide further indoor or outdoor home security. Once you include dash cams and the multiple safety cameras used by cars and VR headsets, it's clear almost any place can now be "seen" in near real time, a development that some find unsettling.

It's one thing to have cameras everywhere, but it's entirely another for their footage to be effectively monitored. AI has emerged camera footage into actionable data. Individuals now rely on computer vision libraries, alert them when people are car drifts out of lane. But variants on across multiple "neighborhood watch" use your friend's identified face across

combining users' doorbell cam footage for neighborhood watch purposes, Amazon has admitted that employees screened some customer videos without permission, a breach of privacy that likely happens more often than people realize.

Thanks to on-device edge AI processing, security cameras are evolving. At this year's CES, Abode revealed a doorbell camera that can learn to recognize "authorized" and "unauthorized" users by face, treating strangers differently from known visitors or residents. The camera builds its own identity database, alerting users when strangers approach or triggering warm welcomes for approved visitors. Sensing potential blowback over facial recognition implications, Abode made the feature opt-in, but it's hard to imagine anyone opting out of the product's tentpole feature.



Above: A new 4K Dash Cam by Vava enables you to record what's going on outside or inside your car in UHD resolution.

Image Credit: Jeremy Horwitz/VentureBeat

Cars are the next frontier for this sort of AI-powered cameras largely to help its vehicles act as sentry in sentry mode to alert owners when suspicious options abound. Vava sells a 4K Dash Cam that records if it's jostled. It can also be used for karaoke sessions in Ultra HD resolution unless that's toggled off in Vava's app.





to turn our cars into recording studios.



Above: Vava's 4K dash camera can be rotated to record whatever's happening inside your vehicle, a feature it says can be used for car karaoke sessions.

Image Credit: Jeremy Horwitz/VentureBeat

Two major developments will dramatically up the ante for automotive surveillance over the next few years. First, manufacturers will be integrating cameras directly into cars' interiors. Second, vehicles will increasingly arrive with persistent wireless connections — including some models previewed at CES 2020.

Like the other aforementioned camera innovations, in-car cameras have positive potential. They may enable faster emergency assistance after accidents, let drivers or passengers chat by video without fidgeting with their phones, and help parents monitor what kids in the back seat are getting up to. Some cars already have systems to detect driver inattentiveness, and Audi is testing eye-tracking cameras that enable drivers to see a 3D heads-up display (HUD)

But between these cameras and new corporate or government abuse. Tech companies can handle untold quantities of data from their devices. Cellular vehicle-to-everything technology can track location, rate of speed, and lane changes. Cameras can monitor pedestrians, but accompanying wire



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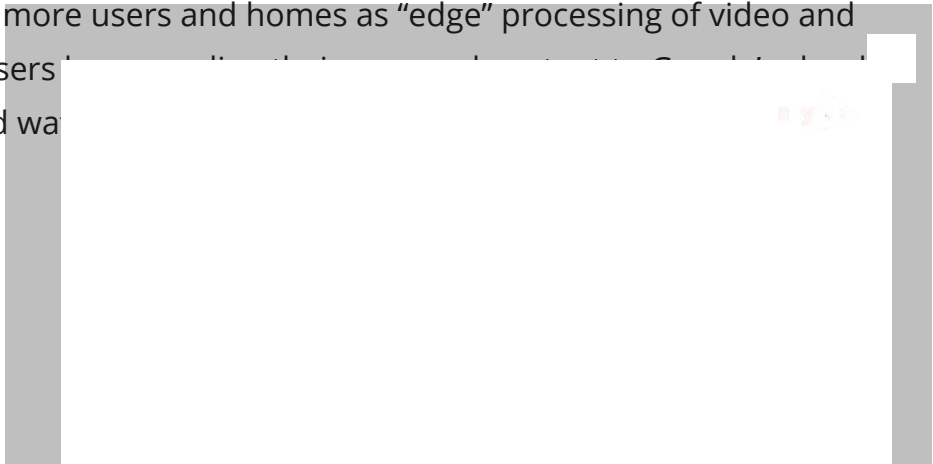
Above: Aftermarket car dash cams with GPS already record your vehicle’s location at any given second. Location accuracy will increase to centimeter-level detail in the 5G era.

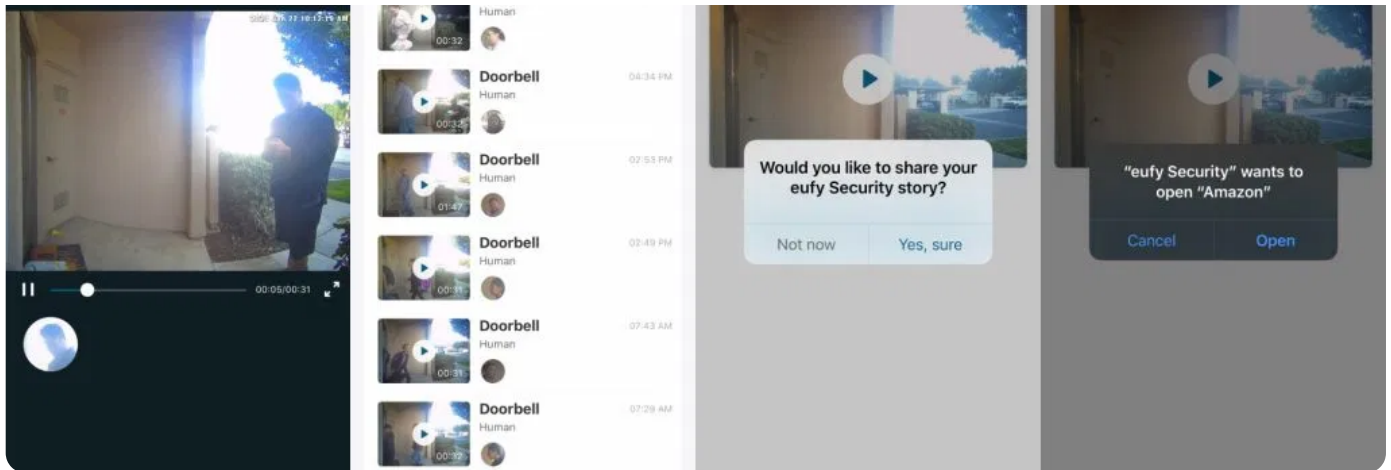
Image Credit: Jeremy Horwitz/VentureBeat

Conspiracy theorists might conclude that the proliferation of cameras, 5G, and AI will lead to everything being monitored — massive amounts of car camera and sensor data automatically uploading to the cloud over persistent, high-bandwidth 5G wireless data connections, with advanced AI canvassing and sorting personal footage for who knows what purposes. But realistically, the cost of surveilling everything at scale would be inconceivable; each two-minute 4K clip from a single Vava camera consumes 600MB of data, enough to require high-bandwidth SD memory cards. Governments will struggle to corral data from hundreds of thousands of connected cars to achieve their stated public safety intentions, let alone harnessing a deluge of data for more nefarious purposes.

For now.

As AI gets better at automatically sorting wheat from chaff and network bandwidth increases to enable even larger quantities of video to pour into cloud servers from multiple sources at once, the risks to individual security will increase. Moreover, cloud servers may be able to efficiently process content from more users and homes as “edge” processing of video and photos increases — assuming users and sharing their “neighborhood wa





Above: Armed with a memory card and on-device AI, Anker's Eufy Doorbell Camera can record every person who approaches your home without sending video to cloud servers.

Image Credit: Jeremy Horwitz/VentureBeat

Car companies and the chipmakers that support them are already talking about harvesting data from network-connected vehicles. Qualcomm recently noted that its Car-to-Cloud platform will enable automakers to leverage post-purchase vehicle usage insights from factory-installed sensors and services in order to sell additional unlockable features to customers. It's unclear at this point what data automakers will be looking at, but we're probably not far from seeing customers receive "added safety package" pitches after their cars determine they're not paying enough attention while driving.

The potential safety and security benefits of home and automotive cameras are clearer today than ever before. Under the right circumstances, AI-powered home cameras can protect against intruders, keep packages from being stolen, and give parents peace of mind. Similarly, car cameras will increasingly let people monitor and protect some of their most valuable assets — vehicular and human — wherever they may be.

Going forward, however, buyers of both home surveillance cameras and camera-equipped cars should study the cameras' monitoring capabilities. Home cameras should go beyond merely watching and recording; they should be able to share footage more widely than we currently expect. Car cameras should be able to stream the most private moments quietly stream