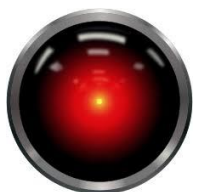


DIGITAL VOICE ASSISTANTS AS A NEW CUSTOMER INTERACTION CHANNEL: **BPO OPPORTUNITIES**

Vadim Anikanov

Independent thought provoker



Most popular DVA platforms

Platform	Language support	Works on a smartphone	Works on a smart speaker	Development tools
Amazon Alexa	English, French, German, Spanish, Italian, Japanese	Some HTC and Huawei models, others support limited functionality	ECHO speakers, 3 rd party speakers	Alexa Skills Kit, Storyline
Google Assistant	20+ languages	Android and iOS devices	Google Home, 3 rd party speakers	Google DialogFlow
Apple Siri	20 languages	Apple devices only	HomePod	SiriKit
Yandex Alice ("Aleesa")	Russian	Android and iOS devices	Yandex.Station, 3 rd party speakers	Yandex.Dialogs, Verter, Aimylogic
Microsoft Cortana	8 languages	Android, iOS, Windows Phone devices	Harman Kardon Invoke	Cortana Skills Kit
Samsung Bixby	3 languages	Some Samsung models	Galaxy Home Speaker (also TVs and fridges)	Bixby Developer Studio

Others: Alme, AliGenie, BlackBerry Assistant, Braina, Cadence, Clova, Duer, Lucida, Mycroft, Nina, Saiy, Sepia, Sherpa, Sylvia, Snips, Xiaowei

Trends

- DVAs are just a user interface to 'the cloud'
- A change in information consumption, buying and customer interaction
- Multitude of devices create an omnipresent computer interface
- The second coming of IVR, chatbots and apps
- **Fast evolution of DVA skills from basic info to sales to customer service**
- DVA platform wars – today's hardware silos to open up to 3rd party or even competitor's hardware over coming years

Omni-present voice interface

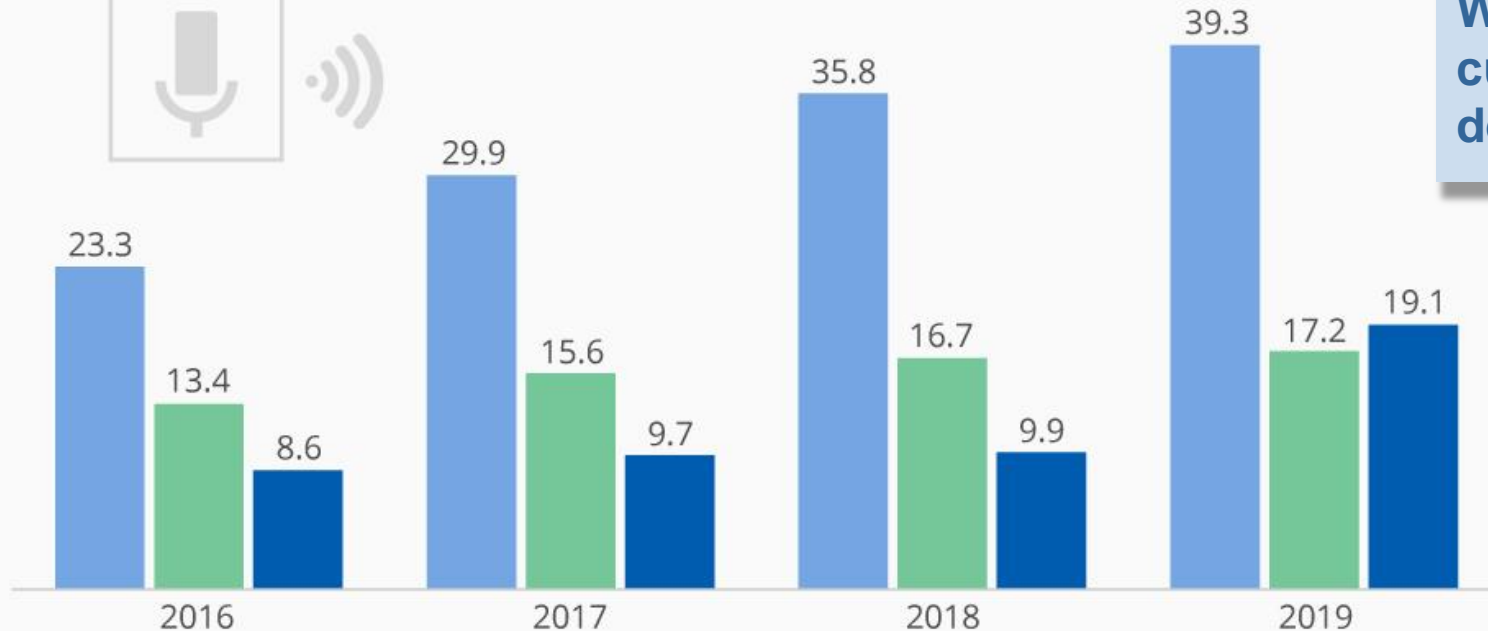


Who is the DVA user ?

Millennials are the most prolific digital assistant users

U.S. voice-enabled digital assistant users by generation (in millions)

■ Millennials ■ Generation X ■ Baby Boomers



What is your customer demographics?



Individuals in the United States who use voice-enabled assistants at least once a month on any device

@StatistaCharts

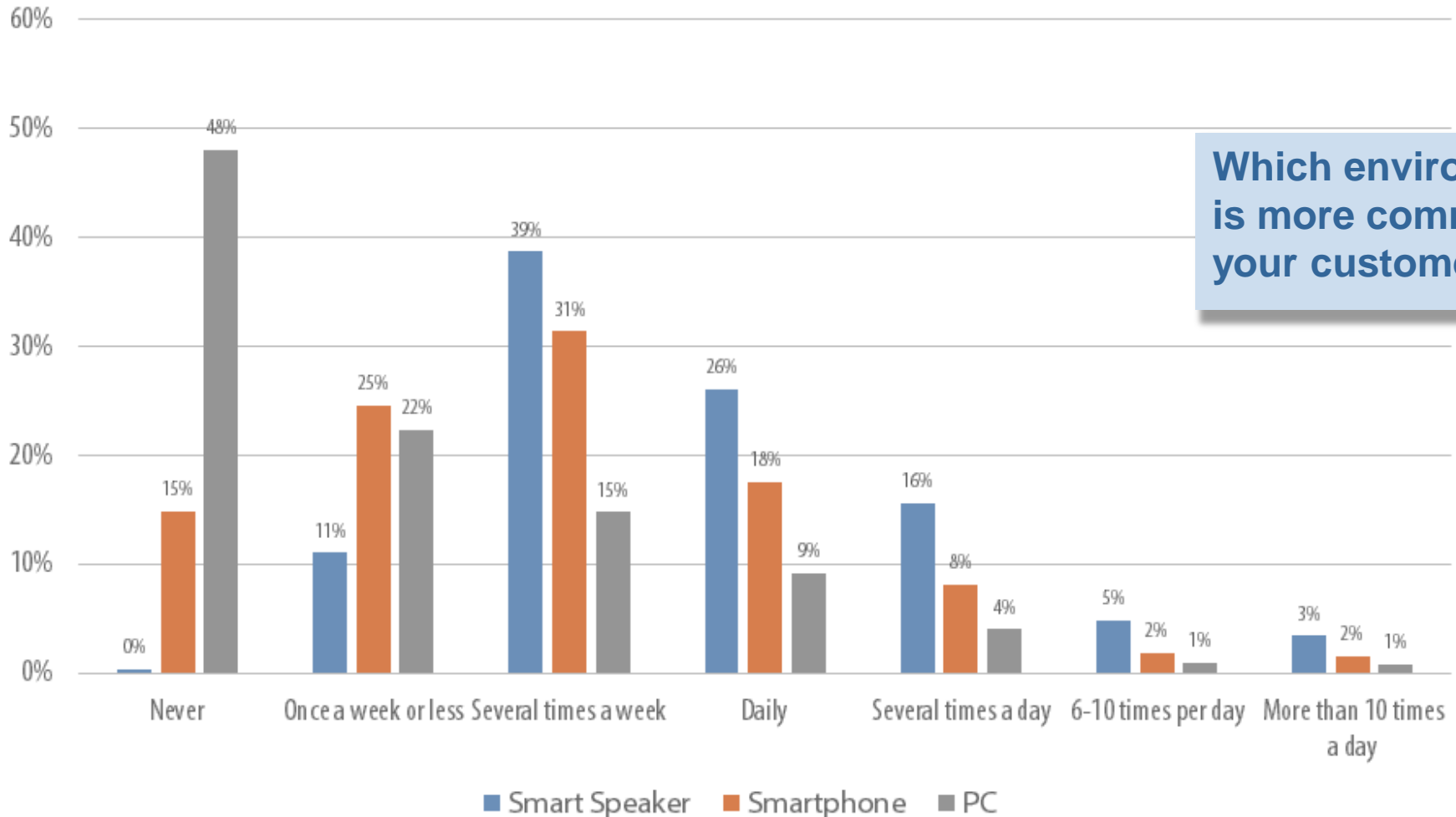
Source: eMarketer

statista

Use of DVAs on Devices



Smart Assistant Usage by Device



Which environment is more common for your customers?

Déjà vu?

Digital Voice Assistants

DVAs are the operating systems of tomorrow

Skill / Action

Online library of skills / actions



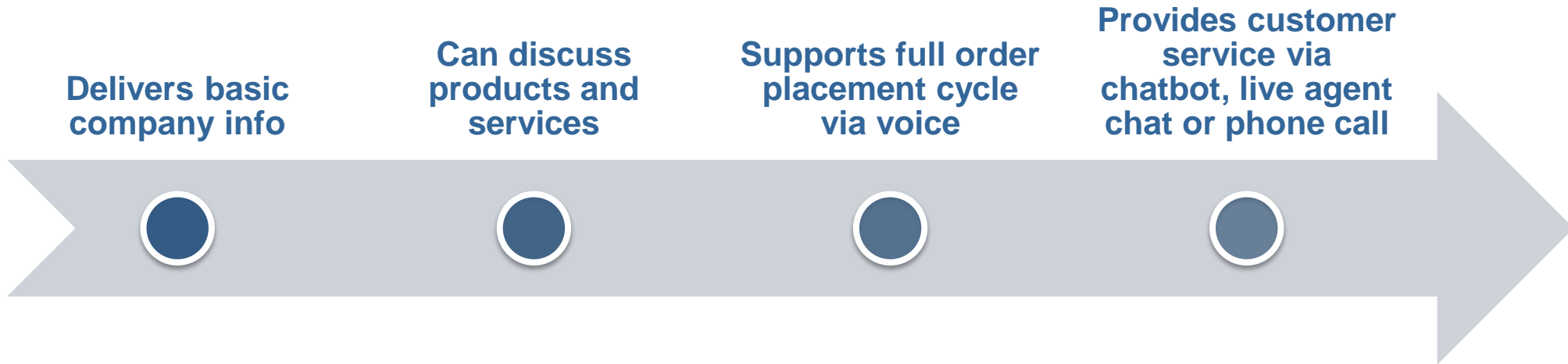
Mobile Apps

Android, iOS, Microsoft Phone are today's operating systems

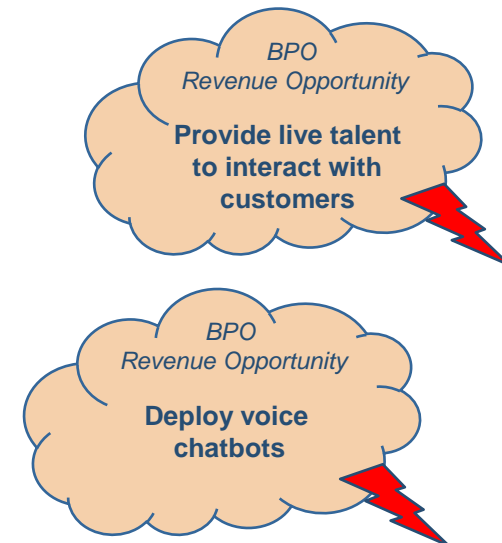
Mobile app

App Store

Evolution of DVA skills



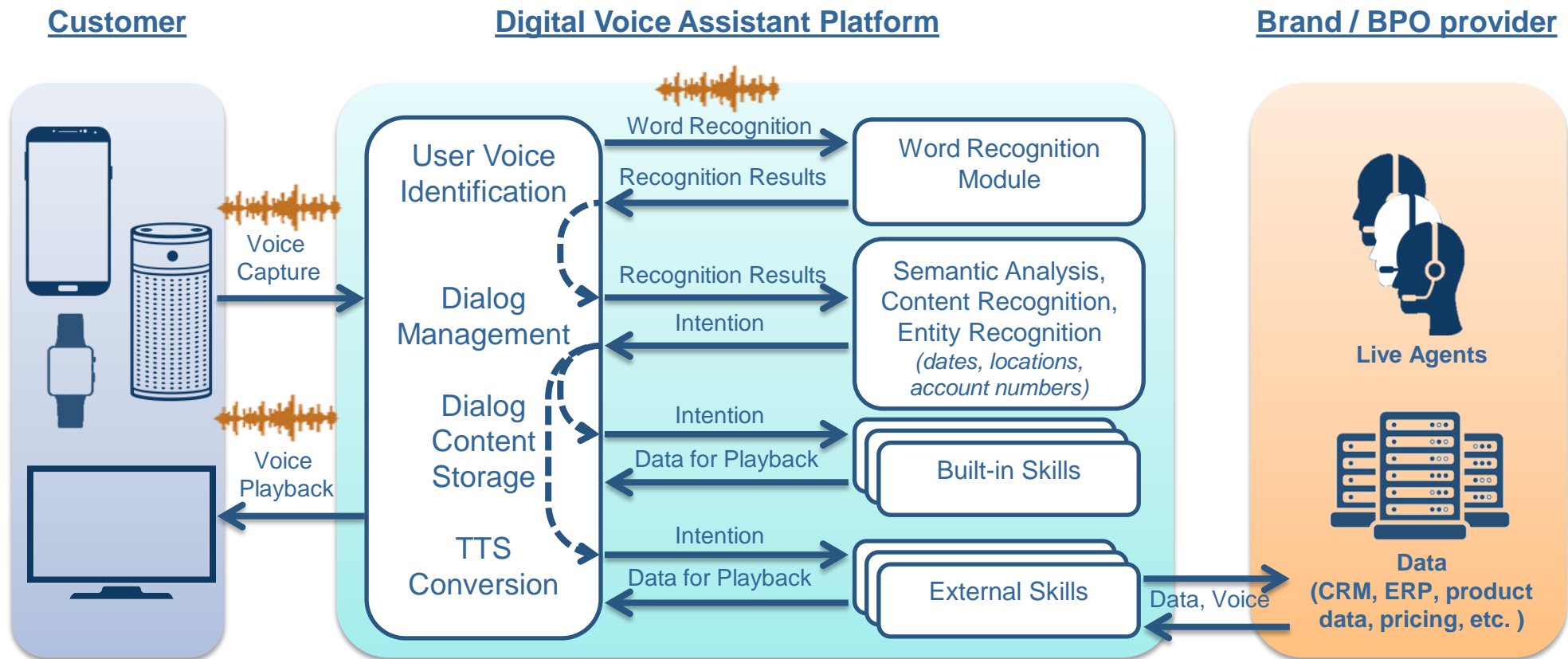
- Same evolution pattern as with mobile apps
- DVA platforms are actively evolving following business and customer demands
- Brand's ultimate goal: evolve through the initial stages ahead of competition



Use cases

- **Yesterday:**
 - What is the weather tomorrow?
 - Who won the NBA game yesterday?
 - What is the distance to the moon?
 - Kitchen lights off. Turn on the bedroom TV and switch it to National Geographic channel
- **Today:**
 - Where is the nearest dogfood store?
 - Is Hot Brick Pizza still open at this time?
- **Tomorrow:**
 - Pay 10 pounds to Mike Smith for the lunch today.
 - Buy me EarBurst XR3 headphones on MuzOn. Deliver to my office address.
- **Next Monday:**
 - Ask Pigeon-Telecom about the unused balance of mail pigeons in this billing cycle. Ask about the currently available plans. Switch my plan to “Wings500”.
 - Call Pho’s Soup Delivery and tell them today’s fish soup was delivered barely warm.
 - Call Arctic Express Card Services. I need to see if I got an extended warranty through them when I paid for that crappy grill oven last fall.

It Takes Three to Tango



Sample Skills - Alexa

BPO
Revenue Opportunity

Design and deploy DVA 'skills'
for customer interaction

The image displays a collection of Alexa skill cards for various businesses. Each card features a company logo in a speech bubble and two sample voice commands in text boxes. The skills shown include:

- Simple Mobile** (TracFone Wireless Inc):
 - "Alexa, Ask Simple Mobile to Add Airtime"
 - "Alexa, ask Simple Mobile to check Data Usage"
- Tracfone** (TracFone Wireless Inc):
 - "Alexa, Ask Tracfone to Add Airtime"
 - "Alexa, ask Tracfone to check Data Usage"
- United** (United Airlines):
 - "Alexa, ask United what's the status of flight 233"
 - "Alexa, ask United if flight 46 has wifi"
- Lyft** (Lyft):
 - "Alexa, ask Lyft for a ride."
 - "Alexa, ask Lyft how much a Lyft Plus from home to work costs?"
- 1-800-Flowers** (www.1800flowers.com):
 - "Alexa ask 1-800-Flowers to order flowers for my sister for her birthday"
 - "Alexa tell 1-800-Flowers to send a gift"
- Parking Violations (NYC)** (Digital Spring Apps):
 - "Alexa, open parking violations"
 - "ask parking violations for number 123456"
- TXU Energy** (TXU Energy):
 - "Alexa, ask TXU Energy for my account balance"
 - "Alexa, ask TXU Energy a payment"
- Carter's Customer Service** (Carter's):
 - "Alexa, ask Carter's where is my order?"
 - "Alexa, ask Carter's where are my pajamas?"
- Lake Michigan CU** (Lake Michigan Credit Union):
 - "Alexa, open LMCU"
 - "What are the branch hours for Medical Mile"
- Waste Management** (Waste Management):
 - "Alexa, ask Waste Management about my next pickup"
- eBags** (Linc Global):
 - "Alexa, ask e. bags where is my order?"
 - "Alexa, ask e. bags where is my laptop backpack?"
- Denny's** (Dennys):
 - "Alexa, open Denny's."
 - "Alexa, ask Denny's to reorder my last order."

Sample Skills – Google Assistant

The image displays a collection of screenshots for various Google Assistant skills. Each skill card typically includes a logo, the company name, a category icon, and a brief description of the skill's capabilities. The skills shown are:

- AGL** (AGL Energy)
- Southcoast Sam** (Southcoast Health) - Details: Check wait times, available appointments and office hours of Southcoast Health Urgent Care Centers and Laboratory Services.
- KAYAK** (Business & Finance) - Details: With KAYAK on Google Assistant, you can track flights and jump-start your travel planning. Have a destination in mind? Check prices on flights, hotels and rental cars. Want to see how far you can go on your budget?
- Westpac** (Westpac Banking Corporation Australia) - Details: Bank effortlessly using your voice with Westpac and the Google Assistant. Check your...
- U.S. Bank** (U.S. Bank) - Details: Conduct simple, everyday banking tasks for your U.S. Bank checking, savings or credit card accounts with help from Google Assistant. Once you have enabled the application, follow the simple instructions to link your account, provided within the Google Home app.
- Rabobank** (Business & Finance) - Details: Rabo Assistant can help you with requesting your balance, and setting a spending budget.
- SmartContinente**
- Fred Meyer** - Details: You can now add, search and remove items in your cart. [Talk to Fred Meyer](#)
- Fry's Food** - Details: You can now add, search and remove items in your cart. [Talk to Fry's Food](#)
- United** (United Airlines) - Details: United is now on Google Assistant! With United on Google Assistant, you're now able to "talk to United" to get your flight status and amenities, check your MileagePlus account

Tradeoffs

- **Smartphone travels with the customer, smart speaker remains at home, car, hotel room, etc.**
- **Authentication based on voice-pattern is still in the works, other devices are required for authentication**
- **Always-on mic drains the battery**
- **Smart speakers often have better mics and better speakers, but are tethered to a power source**



Seamless voice and video interface

- **Voice user interface can be augmented with visuals**
- **Visual interface is also becoming omnipresent – phone and tablet screen, smart watch, TV, kitchen fridge, etc.**
- **Аудио интерфейс работает на смартфонах, умных колонках, умных наушниках, скоро и в машине**
- **Endgame: a seamless transition in any direction across all the voice and video-enabled interface devices**



A good old IVR but on steroids

BPO
Revenue Opportunity

Charge brands on IVR usage

- **Speech recognition and intention recognition**
 - ...but the speech recognition engine is on DVA platform
 - DVA platform also handles intent recognition and context recognition (e.g. addresses, dates, names)
- **Flexible dialog flow is part of the skill design**
- **System responses are generated by the brand's skill logic**
- **CRM, product, pricing data remains within brand's domain**
- **Text-to-speech is handled by the DVA platform and can handle any info coming from the skill**
- **Skill can collect user data, behavior, product preferences for future processing**



Telemarketing & Telesales opportunities



«Digital voice skills have a strong future. By 2022 we expect up to \$40B in online purchases made via voice ordering»

Source: OC&C Strategy Consultants

- DVAs rely on online search for responses. Search engine optimization (SEO) needs to reflect that
- DVAs will soon evolve from launching specific 3rd-party skills (based on trigger words) to prompting skills based on search results
- Unsolicited advertising is not allowed, but promo messaging can be built into skills, made interactive and tailored to customer's responses
- Promotion disguised as consumer hints (e.g. “10 best credit cards” or “How to pick the right dog food”)
- Cross-selling and upselling opportunities as part of the voice-placed order
- An interactive human-like dialog increases consumer trust for marketing and sales messaging



DVA-based customer service

- **DVA skills support both automated dialogs (chatbots) and live agent chats, with a smooth hand-off**
- **More sophisticated skill logic addresses and resolves more customer issue types**
- **When a DVA skill connects to the call center, preserving the prior dialog content is vital**
- **Information security is the main limiting factor**



Information Security

- «S stands for Security in IoT»
- Voice imprint-based authentication is a work-in-progress
- Speaker separation is still evolving
- Risk of undesired information sharing between the users at the same household
- Transaction confirmation should get secured with a PIN or two-factor identification (password or fingerprint on other device)



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