

**The next generation
in voice-based search**

AVA – Autonomous Voice Assistant





Discover how AVA will change the way customers shop (and the way you sell)



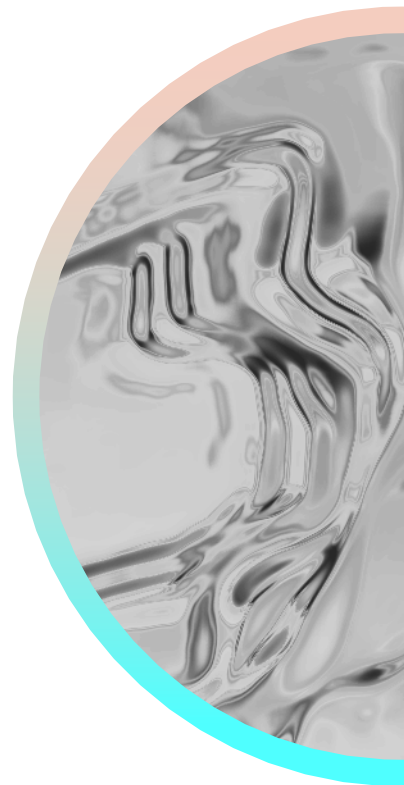
Learn how to harness the power of voice search

ARE YOU LEADING OR FOLLOWING THE ECOMMERCE CROWD?

It has become cliché to talk about the continued explosive expansion of ecommerce. We've become used to numbers that illustrate amazing year-on-year growth. There is literally no one left who doesn't believe that the online space is the future of retail.

That's why you've already invested in your online platform and will continue to do so. That's why you've optimized every detail in the sales funnel. That's why you have a team dedicated to the maintenance of your entire online operation. That's why you keep up with trends, technology and anything that will give you an edge in the most competitive marketplace on the planet.

But are you really standing out from the crowd or just keeping up with it?



Voice search is the new growth frontier in eCommerce

The numbers tell the story

20%

of mobile queries are currently done with voice search, even with their current limitations

72%

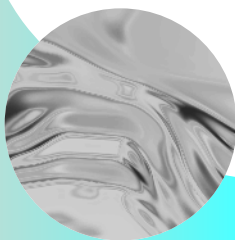
of people who use voice search devices claim they have become part of their daily routine

52%

of people who search by voice are interested in receiving info about deals, sales, and promotions from brands

63%

of smartphone users are more likely to purchase from companies whose mobile sites or apps offer them relevant recommendations on products they may be interested in, according to Google



Google says that **70%** of searches on Google Assistant use **natural language** — shouldn't your ecommerce be ready to handle the same customer queries?

Searching with your voice is **3.7x faster** than typing according to Bing.

By 2022, voice search for shopping needs will have turned into a **\$40 billion industry**.

Voice search is the new growth frontier in eCommerce

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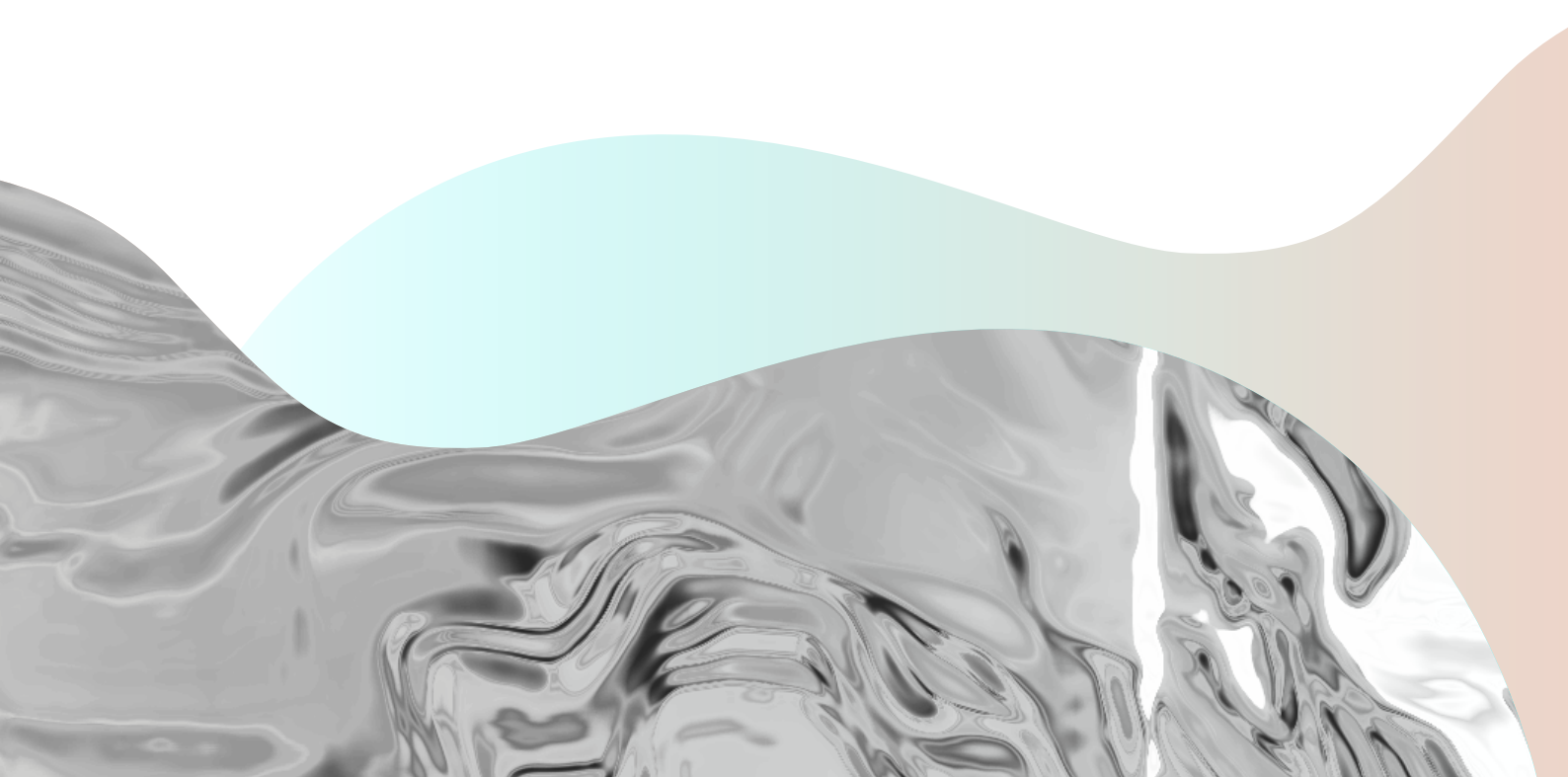
Voice search is a remedy in the declining era of cookie-based personalization. The privacy revolution is here and the era of personal data scraping is ending.

Michał Blak
edrone CEO

Mozilla and Firefox have already rejected cookies by default. Google Chrome's privacy sandbox is just around the corner and will also change methods of personalization in marketing. This has consequences in the shift from behavioral-based to search-based personalization. If you plan to benefit from hyper-personalization in the future, you should rely on search queries instead of a behavioral, cookie-based understanding of customer expectations.

In the past few decades it was the search systems that trained humans how to look for products. We have been taught how to distill the need in our heads into a succinct keyword so that information retrieval algorithms stand a chance to match something relevant. The unprecedented progress in Natural Language Processing in the last couple of years heralds change of approach and a new era for search engines. Even though we have only begun scratching human-level communication in terms of shared context or ambiguity the effects are already astonishing.

Piotr Stachowicz
edrone CTO



Autonomous Voice Assistant - AVA

The future of voice search technology

Turning natural language into the best, most precise recommendations possible and giving you an edge in customer engagement.



What if your eCommerce had a voice?

Voice search is the last key field of online shopping that has yet to be perfected. edrone is leading the way in research and development in this field.

AVA will succeed where current methods fail.

Current search options are often ignored for a simple reason—they don't work. The strange reality is that customers prefer to type out their search even though it's less convenient. Smartphone users can speak into their phones to get any piece of information they want but can't do it to find something in an online store?

We're going to fix that.

HERE'S WHY CURRENT VOICE SEARCH TECHNOLOGY DISAPPOINTS MOST USERS:



Subjective descriptions – What does *nice* or *inexpensive* mean, exactly?



Use of categories – When users want to look at *kitchen appliances* or *lipstick*, where do you start?



Search by feature – Customers often want to choose from among various items with a common feature, but usually cannot.



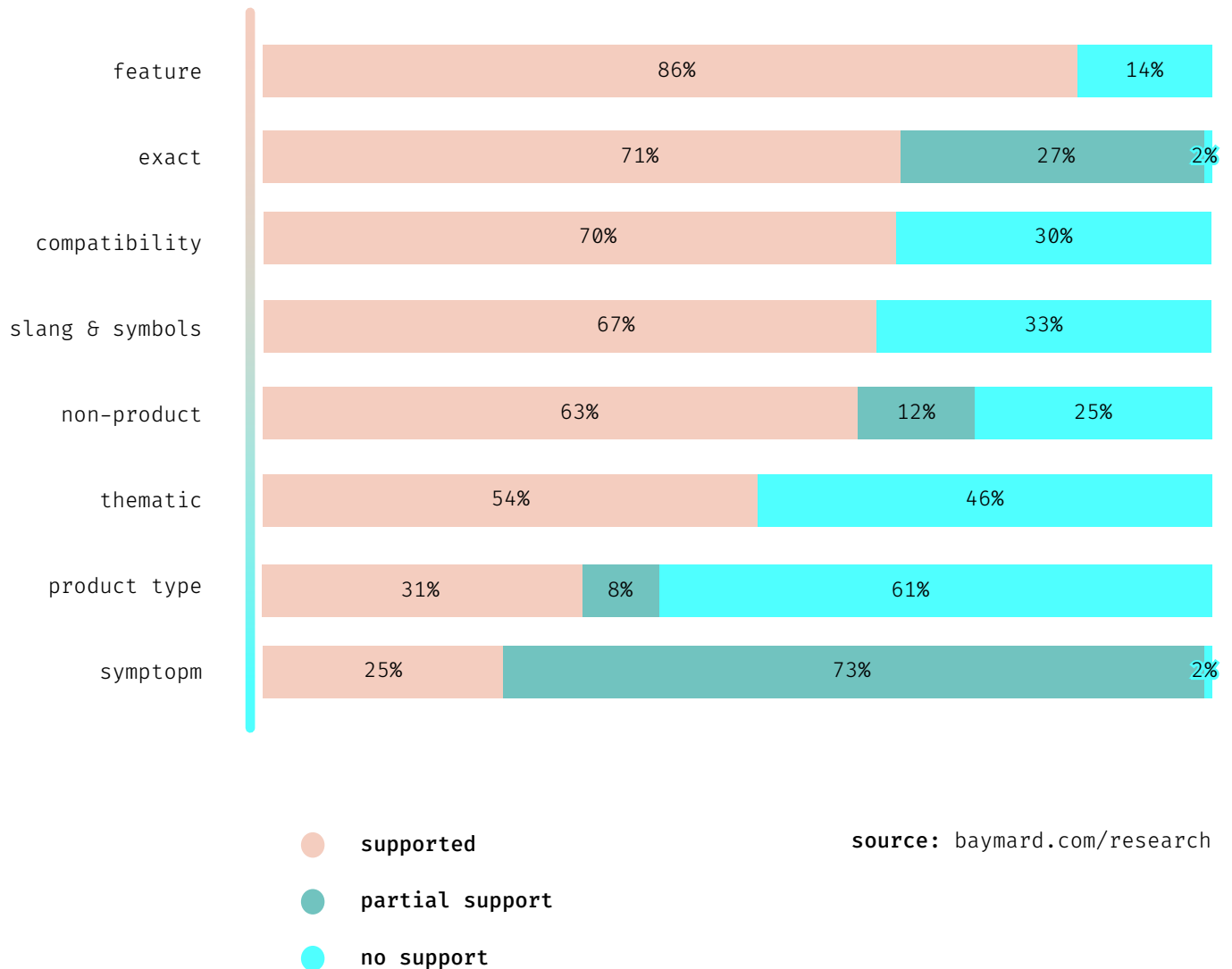
Solution searches – Why can't we just ask for recommendations for a particular need or problem?



Current sales and promotions – This is among the most popular categories on clickable menus, so where is the voice search equivalent?

Voice search can match actual customer habits in a way that conventional search cannot.

Search query support among 60 top eCommerce sites



Poor search results make segment-of-one recommendations impossible.

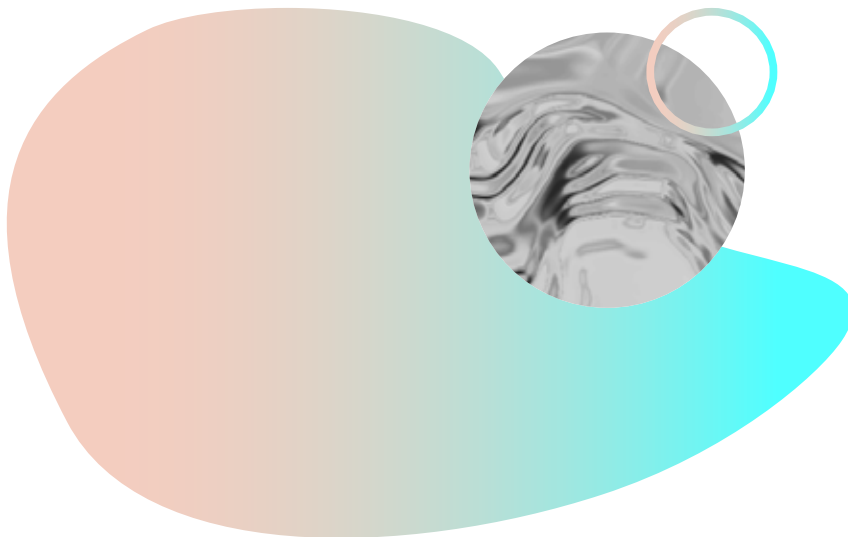
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The future of search optimization may rely less on keywords than ever before – and more on clear, concise, and well-structured content that’s designed for humans.

Radd Interactive

Relevant search results are a fundamental part of deepening engagement with customers. Conversely, their absence is often taken as a sign that an online store does not have the capability of effectively addressing customer needs.

AVA will not only increase the precision of search results, but will make them far more accessible than any current option.



Effective voice search assistants will promote an easier, hands-free experience for shoppers

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The early days of the internet saw a lot of natural language use. As Google gained prominence as the search engine of choice, keyword searches replaced natural language search.

Sidra Condron
Director of
Marketing
@ SpyFu

This is not just about providing the best recommendations for each user. A truly effective voice search option will keep shoppers on your site and make shopping as easy as possible, relying only on voice commands. Your site will suddenly become more welcoming, easy to navigate and feature a voice search option with a level of performance unmatched by competitors.

The research has begun

1/2

edrone has built a dedicated team focused on pushing the boundaries of voice search capabilities.



Prof. Grzegorz J. Nalepa

PhD – Research & Development Lead – President of the Polish Artificial Intelligence Society

Over 20 years of experience in AI research. He has participated in the implementation of several research projects, including cooperation with industry (NCRD, MCP) and international (CHIST-ERA). He is a laureate of the Scientific Award of Tygodnik POLITYKA for the best scientist in the field of technical sciences (2012), the award of the Committee of Computer Science of the Polish Academy of Sciences for the best monograph in computer science (2018), and numerous scientific awards of the Rector of AGH University of Science and Technology.



Szymon Łęski

PhD – Lead Artificial Intelligence Specialist

Previously Allegro R&D Senior Research Engineer, earlier R&D engineer and manager in Samsung's NLP division. Besides a PhD in mathematical physics, he has a habilitation in biology: he was scientifically involved in both black holes and signal activity of the human brain. Author of over 20 scientific publications.



Anna Gut

Senior Software Engineer

An experienced Python programmer, with extensive experience in software engineering for ML projects. Former Machine Learning Team Leader at 10Clouds. Co-author of publications in the Machine Learning field.

The research has begun

2/2

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Leszek Bukowski

PhD – Artificial Intelligence Specialist

He worked as Lead Data Scientist at Emplocity, where he did research on the chatbots field. He has experience with the implementation of NCR&D backed projects. A former lecturer at PJATK. Co-authored several papers in statistics and machine learning. Even before that, he did a PhD in philosophy, in which he dealt with, among others, deontic logic.



Arkadiusz Flinik

Senior AI Specialist, CTO of Lekta AI

Graduate of computer science at the University of Wrocław and has over 10 years of experience in IT and new technologies. His responsibilities include product management and organization of research and development, as well as team leadership, recruitment of employees.



Grzegorz Knor

PhD – Senior AI Specialist

For the past 3 years a Principal Engineer at Samsung R&D's AI department. Previously, he worked as Data Scientist at General Electric and the Polish Academy of Sciences. He led projects on user profiling and affective computing.

We are already making progress



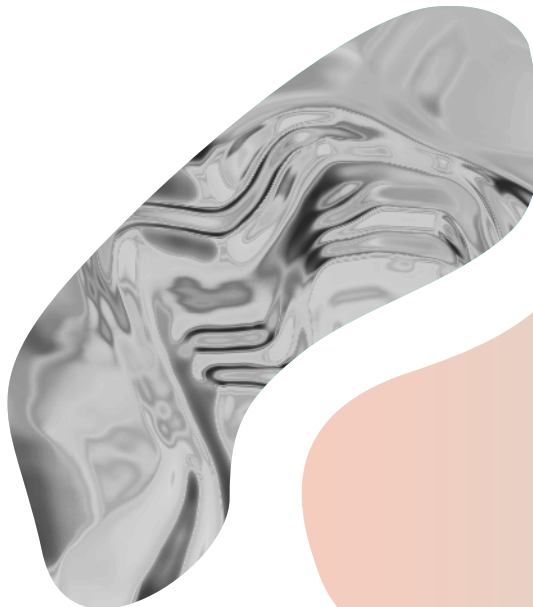
Semantics Based Search

Our search engine prototype so far will always return 20 results. In edge cases, they might be less relevant, depending on the question asked. Speaking of eCommerce recommendations (this is the way search should be considered), something related is better than nothing. At the end of the day, you sell products, not empty shelves.



Annotation scraper

The scraper will automatically fetch and label the product traits, and their values (sizes, colors, dimensions, features, subjective opinions, functions, etc.). Additionally returns product features, and its attributes from item descriptions which are not listed in, e.g., the table with technical details. Besides being AVA's component, scraper gives hints for improvement, as these traits are interpreted as important from the user experience perspective. It also might be used for finding simple orthographical errors.



Understanding client queries is about understanding their language

In our short time working on AVA, we've already discovered crucial insights that will pave the way forward:



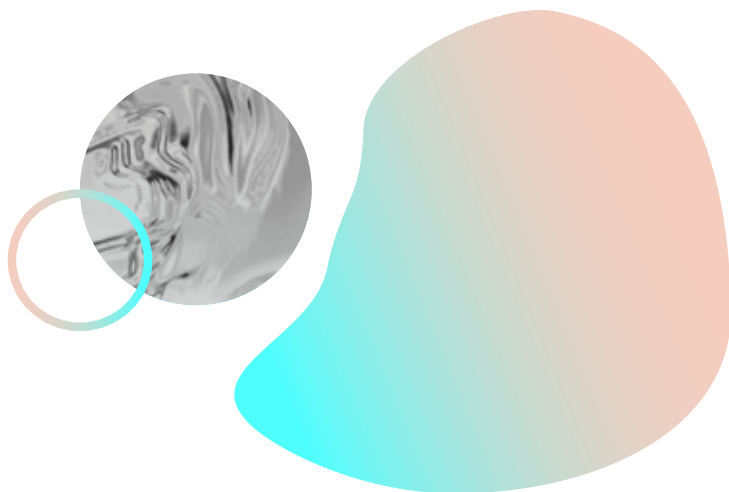
Conversation and high quality product search are essentially the same thing. Developing a conversational client assistant is about developing a hi-end search engine, and vice versa.



Clients search for the same products differently. No tag or annotation can reflect a product's nature better than an understanding of what the purpose of the search query is. To deliver high quality search results is to develop a semantics-based search engine.



Even if we are talking about such a popular attribute as "size", the task is challenging. A shoe size is one thing, and a t-shirt size is another. AI will not know which type of "size" to use, especially when the product is defined by several different sizes. In addition, there are also features restricted to a certain category of products... whose nomenclature in different stores is often different, and so are the customers' queries.



Join us on our mission to perfect voice search with AVA

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Voice Search is mobile – and part of your everyday life [...] It's about the conversation. [...] The choice of words used in the question provides more context about user intent, which in turn can provide advertisers with more insight into where the consumer is within the purchase funnel. Are they simply researching, or ready to purchase?

Campaign,
Christi Olson,
Global Media SEM
Team Lead
@ Google



free of charge



no integration necessary



data security guaranteed



Getting started with AVA

 Discovery call

 Data snapshot

 Data analysis

 I/O

If we're a good fit for working together to advance AVA, we're interested in:

 Research commitment

 Free-of-charge cooperation model

 Customer Journey Insights

Join us on the path to a new age in ecommerce

We expect AVA to be fully operational by Q3 2023. Partnerships that we form now will be the very first to benefit from the next major breakthrough in eCommerce.

Let's talk about taking this path **together**

About edrone



edrone is a leading e-CRM platform for the comprehensive support of ecommerce operations. From the simple elements of effective sales campaigns through full marketing automation support, edrone is a pioneering force in online retail and is dedicated to turning your site into **a sales machine**.

AVA is the latest in a long line of innovations that has placed edrone among the most trusted names in ecommerce sales and marketing support.



CONTACT US

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