Alexa will see YOU NOW:

Getting your healthcare content ready for voice

Voice will change the delivery of care, and it begins with content.

The promise of voice in healthcare applies to multiple care settings: home, clinic, inpatient and outpatient. By monitoring health, advising patients and guiding staff, voice can push us toward the holy grail of improved care, lower cost and a better experience. That prospect is exciting, but also a clear technology disrupter.

So how do we get ready for that sea change? How can you prepare voice content that will educate patients and help them make smart healthcare decisions?

This eBook will get you ready for the challenge ahead. Marketers sit at the unique starting point — patients begin their journey with the content you create. Voice is only going to amplify that experience.

THE NEW FRONTIER

It's a signature Star Trek scene: In peril on a distant planet, Captain Kirk pulls out his communicator and flips it open. He asks the computer on the Enterprise for critical information and receives the answer he needs. Crisis averted. No typing required.

You don't have to be a Star Trek fan to appreciate Kirk's instant, keyboard-free support. You don't have to wait for your own starship, either. The rise of virtual assistants and voice search makes Starfleet technology available now, back here on Earth. It has never been easier and quicker to get what you need.
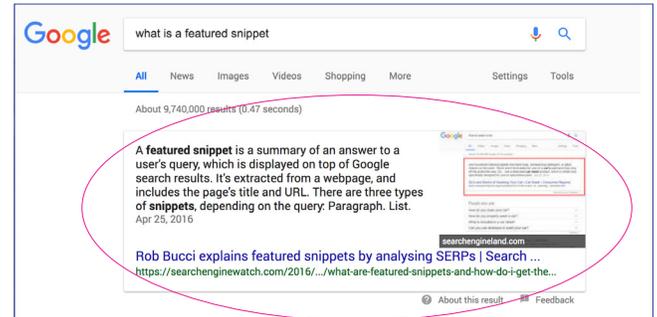
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I: HOW VOICE SEARCH WORKS

Glossary:

- **Virtual assistant:** A cloud-based service that understands voice commands and completes tasks
- **Apps:** Third-party applications called "skills" or "actions" that help virtual assistants
- **Featured snippet:** A search result, also called position zero, that Google chooses to show at the top of the page

THE USER JOURNEY:

Voice search: You speak (rather than type) your request, though you don't interact directly with a search engine. A virtual assistant is at your service, once you activate it with a particular voice prompt such as "OK, Google" or "Alexa." These assistants rely on artificial intelligence, machine learning and natural-language processing to understand exactly what you're after — or at least attempt to.

Let's consider what happens when you say, *"Alexa, my child feels feverish — what should I do?"*

The assistant determines:

1. **What you're asking:** The assistant considers a deeper layer of personal context, from location and search history to apparent interests, previous interactions and past behaviors. For example, the assistant — in this case, Amazon's Alexa — could refer to past searches related to pediatric care and look for conditions that cause fever. It could also consider any apparent preferences you have about where your child receives care.

2. **How to get that info:** The assistant compiles its response. It may turn to its search engine of choice. It may also scan third-party apps you may have enabled. Users can direct the assistant to use a certain app, or the assistant may decide on its own to use one that seems particularly relevant. For our fever query, Alexa could tap Vanderbilt's Flu Tool or Northwell Health's app for locating urgent care. (See Early Adoption, pg. 8).

3. **The answers you need:** Virtual assistants usually provide a single result and never more than a couple. If drawn from the web, the assistant typically cites its source. The answer often comes from a featured snippet. Ideally, in response to the pediatric fever question, Alexa would deliver information on when a child's fever poses a potential danger and suggest local options for help.

VOICE SEARCH: KEY STATS

- **Type vs. speak:** The average person can type 40 words per minute but speak up to 150[1].
- **Accuracy:** Google's voice recognition has reached 95% accuracy, the same as a human listener[2].
- **Frequency:** More than 40% of adults use voice search at least once per day[3].
- **Mobile voice:** More than half of health searches take place on mobile. And more than 20% of mobile searches are voice searches — an estimated 1 billion per month[4].
- **Searches:** Voice is expected to account for 30 to 50% of search by 2020, reaching up to 100 billion searches per month[5].
- **Desktop:** A quarter of Windows 10 taskbar searches are voice[6].

The Big 4 Assistants and Their Search Engines

Amazon Alexa	**Bing**
Microsoft Cortana	**Bing**
Google Assistant	**Google**
Apple Siri	**Google***

*Switched from Bing in fall 2017

DEVICES WITH VIRTUAL ASSISTANTS: NOT JUST SPEAKERS!

It's tempting to view voice search through the lens of the Amazon Echo and other "smart" speakers. After all, they're one of history's most rapidly adopted technologies, with tens of millions sold and 1 in 5 American adults with access. Plus, a survey of purchase motivations from NPR and Edison Research placed "typing-free searches" near the top, after "listening to music.[7]"

But the speaker buzz misses the full impact of virtual assistants. They are:

- **All over the place:** Virtual assistants are already installed on an estimated 400 million devices[8].
- **Doing (almost) everything:** People are using them for more and more tasks.
- **A major part of IoT:** They have a key role in the connected world known as the Internet of Things. The expectation? That your assistant will follow you around from its base in the cloud, always available from the nearest device. Even your toilet.

Devices	Task Examples
Speakers	Searching (of course)
Smartphones and tablets	Listening to music or playing games
Computers	Getting weather, news or sports scores
TVs and remotes	Managing household lights, heating and security
Cars	Making phone calls and dictating texts
Watches, headphones, glasses and other wearables	Asking for directions
Kohler's Verdera bathroom mirror, with optional hookup to a speaker-equipped smart toilet (yep)[9]	Making a purchase, ordering food or booking travel
Other appliances (expected soon)	Updating calendars and to-do lists

II: VOICE VS. TEXT-BASED SEARCH

Voice searches are spoken rather than typed. But they differ from text searches in other ways, too:

Tone and content: While all forms of search have grown more conversational, voice searches go further. They often:

- Feature fully formed sentences instead of shorthand, as if speaking with another person.

- Contain more context and nuance — instead of typing "urgent care near me," you might ask: "I seem to have a swollen bug bite, so what should I do?"

Length: On average, they're 4.2 words long, compared to 3.2 for text.

Phrasing: They often:

- Include long-tail keywords — keywords with lower volume but more focus and purpose.

- Are posed as questions, centered on the 5Ws, particularly "what" and "how." Other questions may start with "can," "are," "is," "which" or "will."

Intent: Generally, voice searchers are:

- More interested in local results.

- More likely to pose an action query — looking to find solutions, not just information.

Following up: Virtual assistants can recognize when the next query is actually a follow-up to the same search and respond accordingly.

III: VOICE SEARCH IN HEALTHCARE

We don't know if Kirk's intergalactic inquiries ever touched on medical needs — he did have a doctor on hand, after all. But healthcare is definitely part of the new frontier in search. We're fairly certain your audience is often using their voice rather than their fingers to seek help.

Right now

- **Who's using it?** We're probably still in the early adoption phase for voice search, with technologically savvy consumers the first to try it.

- **What are they searching for?** So far, voice searches in healthcare have focused on symptoms, locations of care, and health and diet tips, with several healthcare organizations staking out early positions. (See Popular Searches and Early Adoption, pg. 8).

On the horizon

But the use of voice search is likely to spread quickly, due to:

- **Growth and improvement:** The range and number of devices involved, the ease of use, and the improved accuracy of voice recognition will it make more and more popular.

- **People's comfort level:** People are getting more comfortable using voice in public, not just in their homes or cars. As their comfort grows, they're likely to spend more time with it and dive deeper.

- **Ease of use:** It's already evident how voice search can help those who don't see well or have limited dexterity. It can also benefit those with repetitive strain or motion injuries.

- **Feeling connected:** Voice offers a more intimate experience — unlike typing in a search bar, speaking to a virtual assistant is almost like talking to a healthcare provider.

IV: COMING SOON TO A DEVICE NEAR YOU

Case study: To see where voice search could head, let's consider a classic, text-based search.

- **The old way:** Type in "orthopedic surgeon near me."
- **Voice search:** "Who is the best orthopedic surgeon in the city for knee repairs, and where is the surgeon's office?"
- **Even further:** One day, the searcher will be able to seek an appointment with one of the surgeons provided, at a particular day and time. This tantalizing possibility merges search and action — everything accomplished in one query.

Potentially, virtual assistants could:

- Link with patient portals
- Reference personal medical records
- Incorporate health measurements from wearables and other sensors
- Allow patients to complete forms before office visits
- Help manage chronic conditions
- Send reminders about medications and appointments
- Update providers

Virtual assistants already mine a deeper level of context; with additional information and integration, query results could become even more individualized. Imagine someone with diabetes seeking a restaurant recommendation — the assistant could single out healthy options nearby. Eventually, assistants may even predict health needs, possibly without being asked.

The health possibilities are endless

Researchers have already used voice analysis to successfully detect Parkinson's disease, for example. Other promising uses:

- Voice analysis may be able to detect mental health conditions, Huntington's disease, throat cancer and even heart disease[10][11].
- A Google patent foresees the ability to determine mood using voice volume, breathing rate and (if present) crying[12].
- The same patent forecasts the ability to flag medical problems based on coughing and sneezing.

POPULAR HEALTHCARE VOICE SEARCHES

In 2017, Invoca found[13]:	In early 2018, Yext found[14]:	Yext also identified additional desired functions:
70% asked about symptoms	55% sought the nearest urgent care	53% want a reminder to take meds
59% sought health or diet tips	44% needed the location of a doctor's office	43% want the ability to make medical appointments
48% wanted to find a doctor or hospital	36% wanted to know where to pick up a prescription	43% want to know which insurance plans various doctors accept
41% asked about health insurance		

EARLY ADOPTION AMONG HEALTHCARE PROVIDERS

- **WebMD:** WebMD has built an app for Alexa that helps users search for conditions (including symptoms), tests and treatments.

- **Boston Children's Hospital:** The KidsMD app lets parents ask Alexa about symptoms of common childhood illnesses. Parents receive customized tips, such as how to provide care at home and when to see a doctor. The hospital's Innovation & Digital Health Accelerator plans to develop additional voice offerings.

- **Mayo Clinic:** The Mayo Clinic First Aid app for Alexa provides guidance for medical assistance in timely situations — the ones that are urgent but don't warrant 911 calls or trips to the ER.

- **Northwell Health:** An Alexa app provides wait times for emergency rooms and urgent care locations, with help finding the nearest, quickest opening. The organization is looking into voice apps, including for Google Assistant.

- **Vanderbilt University Medical Center:** Vanderbilt's Flu Tool for Alexa asks a series of questions to determine if the person being helped is potentially infected.

V: EXPLORING THIS STRANGE NEW WORLD: THE BIG PICTURE

Sure, voice search is not perfect, at least not yet. You often have to repeat yourself. You may not always receive the information you're seeking. And another technology (augmented reality?) may come along and upend everything.

But voice bears watching, and it's probably worthwhile to adjust your content strategy, too. While your organization can go all in, even making small changes can potentially pay off.

How to approach voice search:

- **Think** about virtual assistants' continued merge of search with other functions and what that might mean for your organization.

- **Assess** your organization's strengths — how can you provide useful content and a unique experience while leveraging your expertise, services and local market?

- **Acknowledge** your efforts will require some testing and experimentation.

- **Use** the technology: Are your services showing up with voice searches? Can people find you? Can they pronounce your name correctly?

- **Decide** where to place resources.

Getting off the ground

Fortunately, you can position for voice search without jettisoning your existing efforts or getting pulled into a black hole. Initial exploration builds off existing fundamentals and can strengthen your standing for traditional search.

Step 1: Secure your launch pad (essentials)

Without a good base, you can't take off. Make sure to:

- **Lay the technical and mobile foundation** your site already needs for SEO — such as https, link auditing and loading speed.

- **Structure your content with schema markup** — tag everything that's important to your organization, from address, phone numbers and hours to conditions treated, lists of doctors and events. You can also use content categories such as articles, news and blog posts.

- **Monitor and respond to online reviews** — manage your reputation!

- **Ensure you have (accurate) listings** on Wikipedia and Wikidata.

- **Claim your page** on Google's My Business and Bing's Places for Business.

- **Check your details** on Google and Apple Maps, Yelp and similar sites.

Step 2: Fuel up (keywords and questions)

As with text search, continue to think conversationally, looking for long-tail keyword opportunities. Identify questions posed by searchers, across your market and about your organization. Capture both common and uncommon (but still relevant) questions:

- **Brainstorm** — think of questions people ask about your services.

- **Use paid or free tools** such as Uber Suggest (use the filter feature for question words) and Answer the Public.

- **Look at Google Search Console** for longer searches on your site, especially those with question words — as of this writing, neither Google nor Bing break down searches by voice and text, but this provides a rough proxy.

- **Document the questions** and exact words patients and families use when speaking with you.

- **Go deeper:** look at online forums, social media sites (including LinkedIn and Facebook groups), Quora, Yahoo Answers and competitors' FAQ pages.

Step 3: Ready your starship (content)

You don't need to redo your entire body of work. Instead, look for places where you can reasonably adjust existing content or add new material. Use your research on long-tail keywords and questions to clearly and directly answer people's needs:

- **Tweak metadata:** Tweak headings and metadata to reflect a targeted question. Repeat the question directly, or pair its keywords with question words such as "how," "why" and "where."

- **Answer questions:** Provide "chunks" of new or revised content to answer questions. Don't create a page for one question-and-answer set, though. Instead, group questions into relevant topics for more substantive pages and include possible follow-up questions.

- **Place content strategically:** If you're adding a question (and its answer) to an existing page, place it near the top.

- **Focus on intent:** Why are people asking these things? What do they hope to accomplish?

- **Think about context:** How will people use your content? Where? In what circumstances?

- **Write how you speak:** Make content conversational and easy to understand — write the way searchers speak to their virtual assistants. Use lists and explain steps. Strike a balance between detail and brevity (the average voice result is 29 words[15]). Sound familiar?

Step 4: Launch your mission (top rankings and featured snippets)

Virtual assistants often draw their voice search answers from one of the top 3 spots on a given search engine's results page. By completing the previous steps, your content is more likely to achieve one of those coveted rankings.

But why not aim higher? You can increase the odds of selection by achieving position zero, the featured snippet found above both ads and standard results. The strategies for both voice search and featured snippets dovetail nicely — answer questions with succinct but helpful content.

Reach for the stars

Feeling even more ambitious or inspired? Consider building an Alexa skill and/or a Google action. Work with your team (and with other internal teams) to determine what you can offer. (One avenue: health games and quizzes.) Take a look at the existing app stores to see what's already out there:

- Alexa "health and fitness" skills

- Google "health and fitness" actions

HAPPY VOYAGING

Optimizing for voice search is achievable. You can explore its furthest reaches, or take briefer forays closer to home. Either approach can benefit your enterprise. Voice search provides an incredible opportunity for healthcare marketing — a more precise indication of what your audience wants, with the knowledge to best serve them.

So boldly go where you may not have gone before. Oh, and may your content live long and prosper.

Resources:
- Google Evaluation of Search Speech — Guidelines
- Alexa Skills Kit: Tutorials
- Build Apps for Google Assistant

Need help getting your organization's content ready for voice search?

Let's talk.

FOLLOW US ON

[1] http://www.ncvs.org/ncvs/tutorials/voiceprod/tutorial/quality.html
[2] https://www.kleinerperkins.com/perspectives/internet-trends-report-2017
[3] https://edit.co.uk/blog/locationworld-2016/
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