

Voice search: Talkin' about an evolution

How does an Irish coffee sound about now? If you wanted to enjoy one right now, and didn't know where to go, would you type a query into a search engine, or speak into your smart phone?

Consumers are increasingly asking their phones just about anything that comes to mind. And, like every other development in the history of the Internet, voice search will reshape marketing strategies.

When we type into search boxes, we tend to limit our queries to essential words. We might type, "Irish coffee Chicago." When we speak, we're more likely to say, "Where can I get an Irish coffee?"



Search engines are building massive knowledge bases to answer questions directly in the search results. The search engine knows a questioner's location, understands that "Irish coffee" is a thing in and of itself (this isn't a question about coffee and an island off the coast of Europe), and has compiled knowledge about Irish coffee from menus and reviews on sites such as Yelp® and Urbanspoon®. The voice search, "Where can I get an Irish coffee?" generates a list of restaurants and bars near you, including their addresses, phone numbers, hours of operation and links to map apps in case you need directions. And there you have your answer—without having to click on links to articles such as, "Top 10 Irish pubs in Chicago."

"When you talk about conversational search, you're really talking about machines being able to understand the last thing you said or the path you're heading down," says Bing® Search Director Stefan Weitz.¹ What this means is that search engines are now capable of interpreting questions to understand the intent behind a search and deliver relevant results. The query, "Where can I get an Irish coffee?" is understood by the search engine and interpreted as, "What bars and restaurants nearest to me have Irish coffee on the menu?" Voice searches have more than doubled between 2013 and 2014, based on survey results released by Google®, and it probably won't shock anyone that teens are leading the way.² Some 56 percent of teens use voice search on a daily basis according to the survey, for everything from finding directions to help with homework.³ Adults are converting to voice search too, with 40 percent using voice search daily.⁴

¹ Gannes, Liz. "How Search Is Evolving — Finally! — Beyond Caveman Queries." *Allthingsd.com*. Dow Jones & Company Inc., 14 Mar. 2013. Web. 22 Jan. 2015.

<http://allthingsd.com/20130314/how-search-is-evolving-finally-beyond-caveman-queries/>.

² Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015.

<http://googleblog.blogspot.com/2014/10/omg-mobile-voice-survey-reveals-teens.html>.

³ Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015.

<http://googleblog.blogspot.com/2014/10/omg-mobile-voice-survey-reveals-teens.html>.

⁴ Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015.

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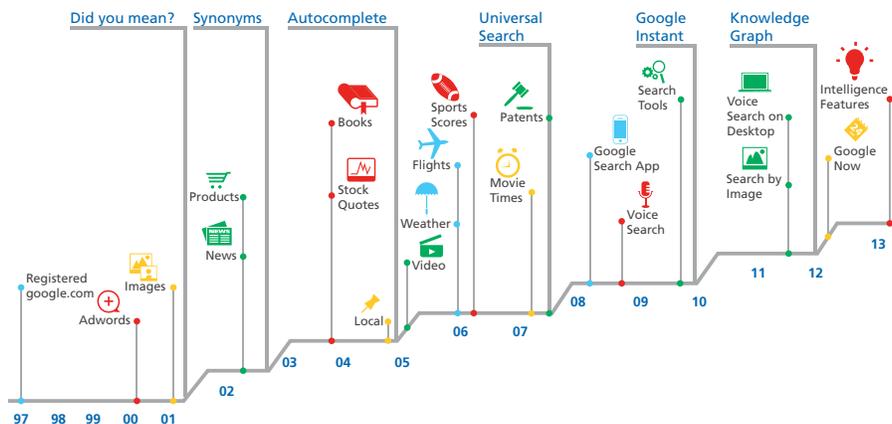
The increasing use of voice search has numerous implications for Web marketing content, including SEO and local optimization. This Blue Paper® will review those implications as we examine the development of voice search, popular voice platforms, how voice-based search differs from text-based search, who is using voice search and why they are using it. You might want to stick with regular coffee for the rest of the paper.

Search history

Let's recall the early days of online search. "You'd sit down and boot up your bulky computer, dial up on your squawky modem, type in some keywords, and get 10 blue links to websites that had those words," says Google's Amit Singhal.⁵ Some 20 years later, you can take out your phone, have a conversation with your digital assistant and get the answer you're looking for without having to go near a link. There have been many milestones along the way, especially with search's dominant player, Google (see Figure 1), that have changed the way marketing is done on the Web.

Figure 1: Google has powered toward voice search since 1997.⁶

Google Search Timeline



A review of Google's timeline shows how the search engine has worked toward functioning as an answers engine. Bing and other search engines have followed similar development paths, but Google is the dominant player when it comes to search. Take a look:

June 2008: Google launches Suggest™ (now Autocomplete), to help users finish queries.

⁵ Singhal, Amit. "Fifteen Years On—and We're Just Getting Started." <http://insidesearch.blogspot.com/>. Google, 26 Sept. 2013. Web. 21 Jan. 2015.

<http://insidesearch.blogspot.com/2013/09/fifteen-years-onand-were-just-getting.html>.

⁶ Lardinois, Frederic. "Google Improves Knowledge Graph With Comparisons And Filters, Brings Cards & Cross-Platform Notifications To Mobile." *TechCrunch*. N.p., 26 Sept. 2013. Web. 10 Mar. 2015. <http://techcrunch.com/2013/09/26/google-improves-knowledge-graph-with-comparisons-and-filters-brings-cards-to-mobile-search-adds-cross-platform-notifications/>.

November 2008: Google's mobile app starts accepting voice searches.

February 2009: Google enables Android® users to start searching using their voice with the touch of a button.

September 2010: Google launches Instant™, which shows search results even as a query is being typed.

June 2011: Google Chrome™ gets a microphone—click on it and you can search your desktop with your voice.

May 2012: Google introduces Knowledge Graph, a super database designed to understand how people, places and things are connected. This boosts Google's ability to provide answers with search results and to carry out a conversation with searchers.

June 2012: Digital assistant Google Now™ provides users with information without being asked, such as weather forecasts, how your favorite sports team is doing, whether your flight is on time and traffic conditions on your drive home.

August 2013: The Hummingbird algorithm improves on Google's understanding of the intent and contextual meaning of words.

Knowledge Graph combined with voice search capabilities is where conversation with a database really takes off. Search Engine Land's Danny Sullivan offers this example: You can say, "Barack Obama," and Google will show you results for Barack Obama, and respond, saying, "Barack Obama is President of the United States." You can then ask, "How old is he?" and you will hear, "Barack Obama is 53." What's cool about this, Sullivan explains, is that the search engine knows that "he" refers to Barack Obama, and that Barack Obama is a person. The search engine can then pull information it has about that person from its giant Knowledge Graph database and present it as if you were having a conversation with Google itself.⁷



Similar to its understanding that Barack Obama is a person, Knowledge Graph understands things like book titles and venue names as entities rather than a combination of words. "The Knowledge Graph, like every other Google system, will undoubtedly evolve and become more complex over time, gradually introducing more new features and streamlining the Web in ways we probably haven't even thought of yet," says Forbes® columnist Jayson DeMers.⁸

⁷ Sullivan, Danny. "The Evolution of Search." Moz.com. SEOMoz, Inc., 28 June 2013. Web. 21 Jan. 2015. <<http://moz.com/blog/the-evolution-of-search>>.

⁸ DeMers, Jayson. "What Google's Knowledge Graph Means For The Future Of Search." Forbes.com. Forbes, 28 Oct. 2014. Web. 25 Jan. 2015. <<http://www.forbes.com/sites/jaysondemers/2014/10/28/what-googles-knowledge-graph-means-for-the-future-of-search/>>.

There's an assistant for that

Here's where things get really cool. Virtual assistants such as Google Now can figure out a lot about us if we want them to, which in turn contributes to more relevant conversations when a voice search is initiated. If a hotel booking is mentioned in a Gmail® account, for example, the digital assistant knows the area around Chicago to look for restaurants to recommend.

Those digital assistants get a lot of assistance from search algorithm changes rolled out by Bing, Microsoft® and Google. Google's 2013 Hummingbird algorithm is one change that grabbed the headlines, as it emphasized how the search engine was focusing on natural language and interpreting search queries.

Although Google and Microsoft both support voice search on laptops, most voice searches happen on mobile phones. iPhone's® [Siri](#)® was the first digital assistant, but it has been joined by Microsoft's [Cortana](#)™ for Windows phones and Android's [Google Now](#). Let's have a look at them.



Originally just another app in the iPhone App Store, Siri made its first appearance as the iPhone's digital assistant in the 4s, released in 2011. For the first time, smartphone users could ask a virtual assistant questions and set up appointments and reminders. More recently, Apple introduced the "Hey, Siri" handsfree mode in iOS 8 for iPhone and iPad®. By saying, "Hey, Siri," a user can ask questions and get answers without touching the device, as long as the phone or pad is plugged in.

Cortana, Microsoft's digital assistant, is named after an artificially intelligent character from the Halo® video game series. Available in Windows 8.1 phones and PCs with Windows 10, Cortana asks a lot of get-to-know-you questions during set up. It knows your favorite contacts, whether you want it to set reminders, when you don't want to be disturbed, what you are interested in, where you live and so on. The more information you feed it, the better search results you'll get.

Google Now uses search history and preferences to make personal recommendations. If you have a flight confirmation in Gmail, Google Now will let you know where it's departing from and whether there are any delays. It's also possible to customize your Google Now experience with cards that display information without you asking for it—about the weather, for example, or how long your commute home will be in current traffic conditions.

Digital assistants aren't perfect. However, marketers should not use their annoying quirks as an excuse for holding off on developing content that aligns with the natural language approach that helps digital assistants provide the best

search results. Keyword-based optimization, for one, is giving way to an approach that focuses more on ensuring that a website answers customers' common questions and problems. For example, thanks to their natural language, lists of frequently asked questions and forums will offer valuable marketing content as voice search continues to increase.

What's the difference?

The difference between the phrasing used in voice searches and the words used in text searches is an important distinction for anyone who has built a Web marketing strategy around keywords and search engine optimization. Here are the primary differences:



Voice searches are more conversational. The question in this Blue paper's introduction, "Where can I get an Irish coffee?" sounds like part of a conversation with a friend or co-worker. "Irish coffee Chicago" sounds like a conversation with a caveman.

With voice search, people don't think about the words they are using as much as they do in a text search. Speaking into a phone or computer naturally encourages searchers to use more conversational language. "It is definitely the case that if you have something coming in via voice, people are more likely to use natural language," says Google's Matt Cutts. "They are less likely to use search operators and keywords and that sort of thing, and that is a general trend that we see."⁹

Conversational language increases the relevance of search engines that understand the context and intent of a question. If people are using more varied phrasing in voice queries, it becomes even more important for search engines to really understand what is being sought.

Voice searches are more immediate. Consumers using voice search are often looking for something they can act on in that moment, such as directions to a restaurant or hours of operation for a store. In fact, the Google app receives 30 times as many action queries by voice as by typing.¹⁰ For our query about Irish coffee, the word "now" or another word or phrase that might indicate that the questioner is looking to enjoy a drink immediately isn't even stated, but it's understood.

Voice searches are more likely to be related to location. Again with our Irish coffee, search results would list bars or restaurants in the questioner's immediate

⁹ Cutts, Matt. "How Has Query Syntax Changed since Voice Search Has Become More Popular?" Youtube.com. YouTube, 8 July 2013. Web. 9 Feb. 2015. <<https://www.youtube.com/watch?v=jcxyVADYQOM>>.

¹⁰ "Top 3 Tech Trends Marketers Should Watch in 2015." Think.storage.googleapis.com. Google, n.d. Web. 25 Jan. 2015. <<http://think.storage.googleapis.com/docs/top-3-tech-trends-marketers-should-watch-in-2015-infographics.pdf>>.

vicinity, providing better options than a text search as broad as the entire metropolitan area of Chicago.

These differences present challenges and opportunities for marketers. Optimizing for keywords is less relevant, as conversational search terms are more varied and search engines are trying to interpret the meaning behind them. More and more, website content will need to fall in line with users' requests, answer their questions or solve their problems using natural, conversational language.

According to Google's survey, the top five reasons people use voice search are:¹¹

1. To ask for directions
2. To call somebody
3. To dictate texts
4. To get help with homework
5. To play a song



A common theme in this list is the immediacy of what is being sought. This holds real promise for marketers. People are providing information on what they want to do right now. Marketers can help users looking to take immediate action by making sure that the business, product or service they are promoting has a complete profile on Google+™ and reviews and recommendations on such sites as Yelp.

Questions, questions

The role questions have in voice search is a key concern for marketers. Much of what is asked in voice search revolves around the old newspaper reporter's standby questions of who, what, when, where, why and how. Let's take a quick look at how "question" keywords have grown in popularity since Google rolled out voice search in its app in 2008. It's not possible (yet) to know whether a search was initiated via voice or text, so looking at question words that are more common in natural language voice queries than typed searches is a good alternative.

Search Engine Watch conducted a useful year-over-year study comparing 2014 to 2013 (see Figure 4), looking at the number of times "who," "what," "where," "when" and "how" appeared in search queries.¹² It found a 61 percent growth in these phrases, with "who" phrases increasing 134 percent and "how" phrases increasing 81 percent. Figures 2 and 3 show a strong rise in question-related

¹¹ Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015. <<http://googleblog.blogspot.com/2014/10/omg-mobile-voice-survey-reveals-teens.html>>.

¹² Tabeling, Jason. "How Will Voice Search Impact a Search Marketer's World?" *Searchenginewatch.com*. Incisive Interactive Marketing LLC, 1 Dec. 2014. Web. 9 Feb. 2015. <<http://searchenginewatch.com/sew/how-to/2383498/how-will-voice-search-impact-a-search-marketers-world>>.

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words since voice search debuted in 2008.

Figure 2: Searches that include the phrase “How do I” have increased since 2008.¹³

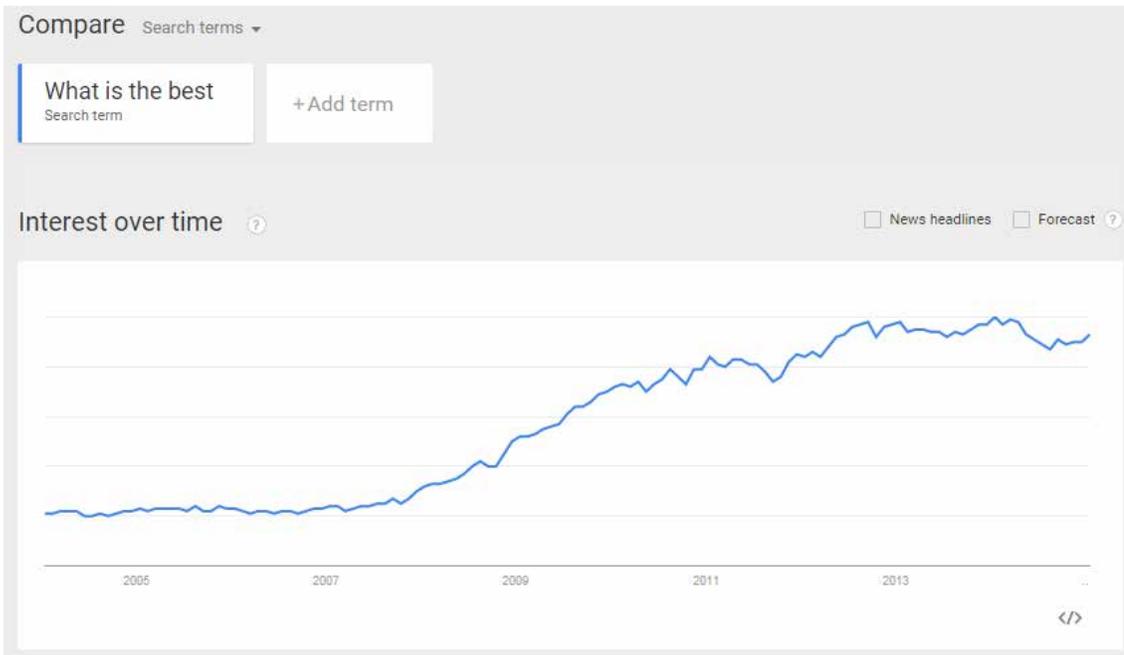
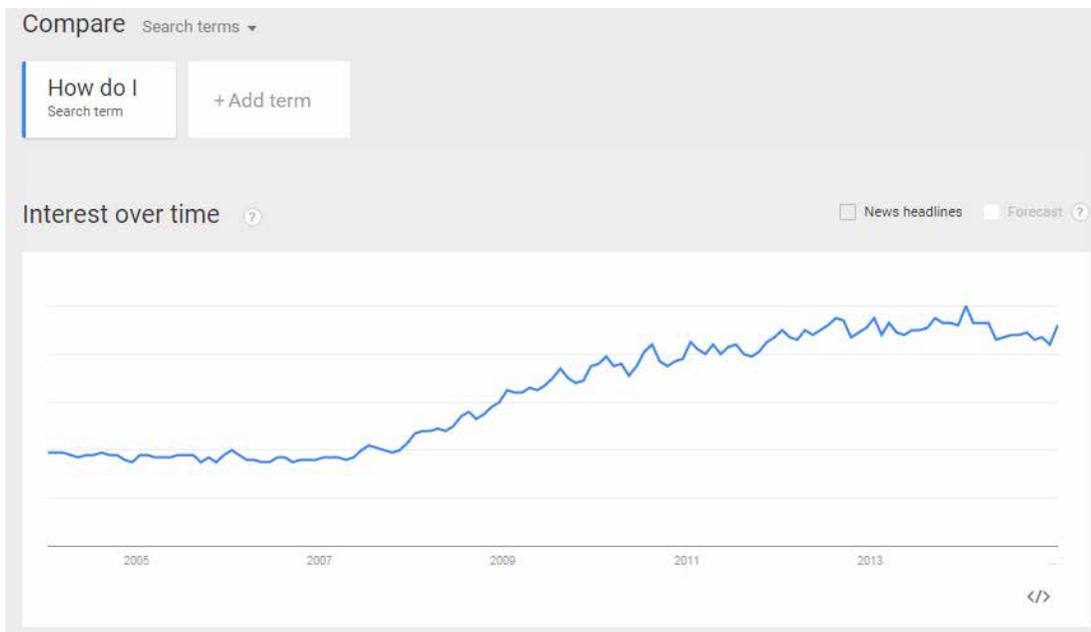


Figure 3: Searches with the phrase “What is the best” began to increase around 2008.¹⁴



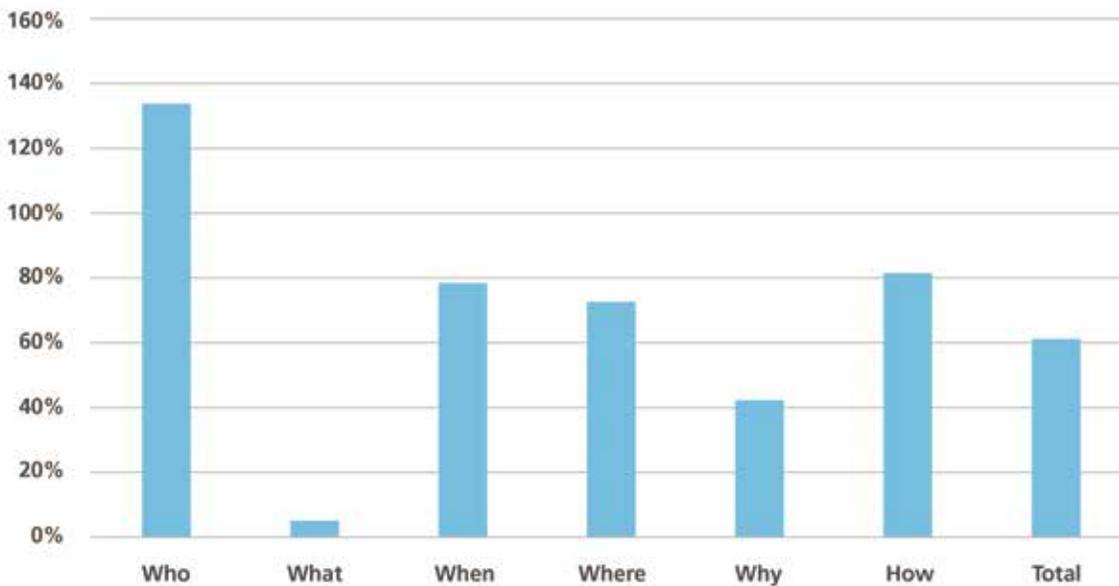
¹³ "Google Trends." Google Trends. N.p., n.d. Web. 10 Mar. 2015. <<http://www.google.com/trends/>>.

¹⁴ "Google Trends." Google Trends. N.p., n.d. Web. 10 Mar. 2015. <<http://www.google.com/trends/>>.

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Figure 4: A year-to-year comparison of 2014 versus 2013 showed a 61 percent boost in the use of question words in queries.¹⁵

Growth in question phrases year over year



What these charts hint at is that people treat text-based and voice searches differently. These differences have serious implications for a website's content. In addition to what people are asking, marketers also need to be aware of who is using voice search (Figure 5) and what else they are doing when they use voice search (Figure 6). More than half of teens (56 percent) and 41 percent of adults are initiating voice searches on a daily basis. They are asking for directions, playing songs and calling people in their contacts lists. And they are making these queries while exercising, cooking and even using the bathroom. Imagine a person in the kitchen initiating a hands-free conversation with her phone, looking for an explanation for a cooking technique while keeping her screen crumb-free, and you'll have pictured a typical adult engaging in a voice search.

¹⁵ Tabeling, Jason. "How Will Voice Search Impact a Search Marketer's World?" Searchenginewatch.com. Incisive Interactive Marketing LLC, 1 Dec. 2014. Web. 9 Feb. 2015. <<http://searchenginewatch.com/sew/how-to/2383498/how-will-voice-search-impact-a-search-marketers-world>>.

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Figure 5: Asking for directions and finding out movie times are popular voice search queries for teens and adults.¹⁶

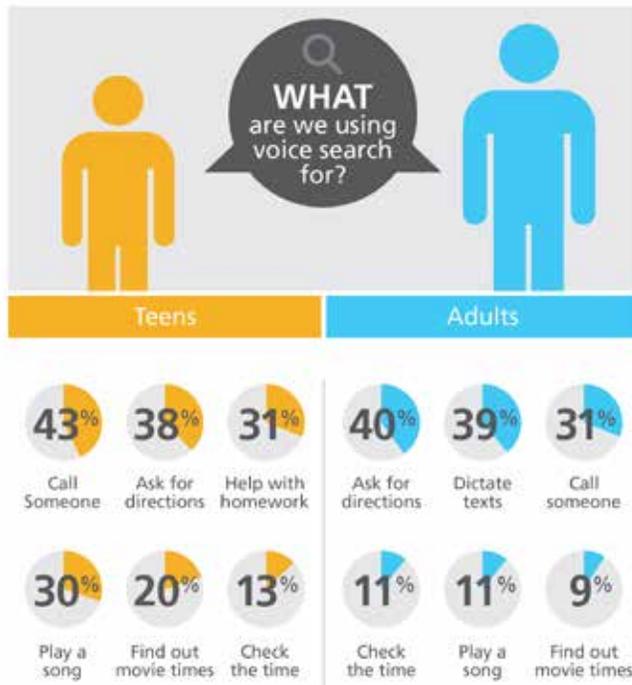
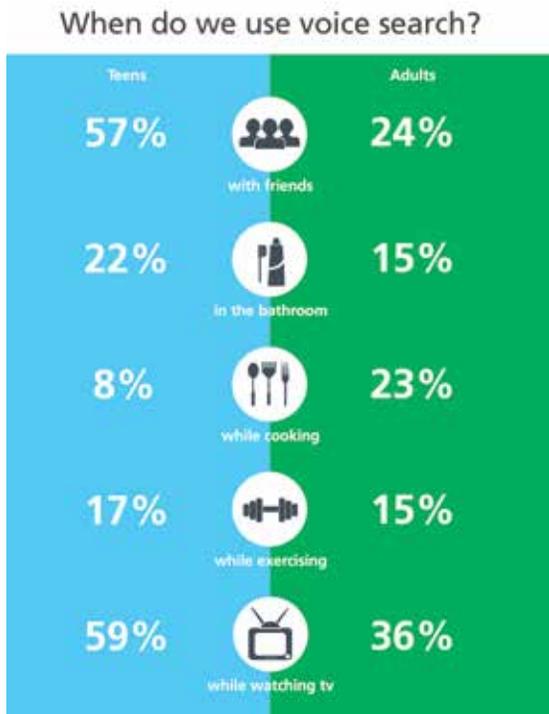


Figure 6: Adults and teens use voice search while watching TV more than any other activity.¹⁷



Get ready to talk

While it's tough to propose a to-do list for optimizing a website for voice search, there are some things that marketers can do to get started.

- While a bit obvious, ensure that your website is fully optimized for mobile devices and has a strong local business presence.¹⁸ Have location data, including your address and an embedded Google Map with your location, featured on your website. And set up a verified Google+ local

¹⁶ Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015.

<http://googleblog.blogspot.com/2014/10/omg-mobile-voice-survey-reveals-teens.html>.

¹⁷ Huffman, Scott. "OMG! Mobile Voice Survey Reveals Teens Love to Talk." *Googleblog.blogspot.com*. Google, 14 Oct. 2014. Web. 14 Jan. 2015.

<http://googleblog.blogspot.com/2014/10/omg-mobile-voice-survey-reveals-teens.html>.

¹⁸ McAllister, Matt. "Voice Search SEO – Are You Ready?" *Catalyst.ca*. CATALYST, 8 Sept. 2014. Web. 14 Jan. 2015. <http://catalyst.ca/blog/voice-search-seo-are-you-ready/>.

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listing. Most voice searches that result in conversions, such as a purchase or restaurant booking, are related to local searches.

- Encourage customers to contribute to ratings and review sites. Google Now and Siri consider ratings when building their results pages. Positive reviews on Google+, Yahoo®, Yelp, Trip Advisor® and similar platforms can give your business an edge with voice search.
- Keep an eye on brand and company mentions on social media. This can help you discover the commonly asked questions you can optimize around and build content for.¹⁹
- When producing new content for a website or optimizing the copy of existing pages, avoid making keywords the only goal. Instead, focus on answering general questions that could lead a customer to find your product or service on your website.
- Develop FAQ or Q&A sections to further develop website content based on questions customers ask.²⁰ Remember, voice searches tend to use complete sentences rather than keywords, such as, “Is there a good, cheap plumber around here?” or “Is there a bar around here where I can watch the football game tonight?”
- Focus on subjective questions, as both Google and Bing are trying to answer basic factual questions on their search results pages. Website content will be more relevant if it focuses on questions such as, “What is the best/top/recommended/highest rated.”²¹
- If you have multiple locations, make sure you keep your local profiles up to date, particularly with Google Maps.²²
- Set up an online forum for conversations and exchanges. Forums naturally raise topics people are searching.²³

¹⁹ McAllister, Matt. “Voice Search SEO – Are You Ready?” Catalyst.ca. CATALYST, 8 Sept. 2014. Web. 14 Jan. 2015. <<http://catalyst.ca/blog/voice-search-seo-are-you-ready/>>.

²⁰ McAllister, Matt. “Voice Search SEO – Are You Ready?” Catalyst.ca. CATALYST, 8 Sept. 2014. Web. 14 Jan. 2015. <<http://catalyst.ca/blog/voice-search-seo-are-you-ready/>>.

²¹ Golden, Dan. “Are You Ready for Conversational Search?” Acquisio.com. Acquisio, 22 May 2013. Web. 21 Jan. 2015. <<http://www.acquisio.com/blog/landing-pages/are-you-ready-conversational-search/>>.

²² Cato, David. “How Will Voice Search Change SEO for Local Stores & Global Enterprises?” Searchenginewatch.com. Incisive Interactive Marketing LLC., 26 Sept. 2013. Web. 14 Jan. 2015. <<http://searchenginewatch.com/sew/opinion/2296905/how-will-voice-search-change-seo-for-local-stores-global-enterprises/>>.

²³ DeMers, Jayson. “How Voice Search Could Affect The Future Of SEO.” Forbes.com. Forbes, 5 Nov. 2014. Web. 14 Jan. 2015. <<http://www.forbes.com/sites/jaysondemers/2014/11/05/how-voice-search-could-affect-the-future-of-seo/>>.

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- If you own a restaurant, consider joining platforms such as OpenTable®, so potential customers can make a reservation on the fly with their mobile devices.²⁴
- Use extra HTML markup to tag information on your website. This is simple a way of providing search engines with more information about your website (go to schema.org to learn more).



One of the biggest drawbacks to voice search for marketing purposes is that it reduces the need for customers to visit your website. For example, if a search engine or digital assistant can tell a potential customer where nearby restaurants are located, how to get there, when they are open and possibly even make a reservation, then most customers won't need to visit a restaurant's website. Be prepared for a drop off in website traffic from people looking for the most basic information about your business.

In addition, phone calls that result from someone using voice search to find your contact information are hard to track.²⁵ You may need to get a lot more creative about how you track how people are finding you.

Talkin' bout the future

It's difficult to predict the technological advancements that lie ahead for voice-based search. Voice may become the search medium of choice for most people, especially if wearables such as smart watches and glasses take off. Keywords may lose their value as semantic search takes priority and conversational voice search is used whenever we have an immediate need. Websites could become less important as search engines provide answers directly in conversations. "The IoT [Internet of Things] will redefine search marketing," says Laurie Sullivan of MediaPost. "The future of search resides in automatic identification through beacons, sensors, global positioning systems, and other types of technology that push information rather than pull."²⁶

The marketing challenge will be to find ways to keep website content relevant while search engines get better at providing direct answers, all the while ensuring that search engines have the information they need to understand when a company is the answer to a searcher's query. Not to mention the need to keep an

²⁴ Southern, Matt. "Google Makes Conversational Search Even More Intelligent." *Searchenginejournal.com*. Alpha Brand Media, 9 Oct. 2014. Web. 15 Jan. 2015. <<http://www.searchenginejournal.com/google-makes-conversational-search-even-intelligent/117951/>>.

²⁵ McAllister, Matt. "Voice Search SEO – Are You Ready?" *Catalyst.ca*. CATALYST, 8 Sept. 2014. Web. 14 Jan. 2015. <<http://catalyst.ca/blog/voice-search-seo-are-you-ready/>>.

²⁶ Dame, Nate. "Glimpses Of The Future: 10 Fringe SEO Predictions For 2015." *Searchengineland.com*. Third Door Media, Inc., 5 Dec. 2014. Web. 25 Jan. 2015. <<http://searchengineland.com/glimpses-future-10-fringe-seo-predictions-2015-210140>>.

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eye on how databases such as Knowledge Graph streamline the Web in ways few have yet to imagine.

Being a content marketer these days may feel a bit like being a painter who works on San Francisco's Golden Gate Bridge—you get from one end to the other, only to have to start all over again. You just finished putting solid content in place, and now face the challenge of reworking the content for voice searches and conversational searches with digital assistants.

But it's only the parameters that are changing, not the goal. In fact, good search results and good marketing go hand-in-hand. The best search results are achieved through understanding what users are asking for and giving it to them. And in the words of the renowned management consultant Peter F. Drucker, "The aim of marketing is to know and understand the customer so well the product or service fits him and sells itself."²⁷

An Irish coffee does sound good about now. I'm not sure where to get one, but I know who to ask. When your potential customers ask questions, are you the answer?



²⁷ "Peter Drucker Quote." *BrainyQuote*. Xplore, n.d. Web. 10 Mar. 2015.
<<http://www.brainyquote.com/quotes/quotes/p/peterdruck154444.html>>.

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