The search is over: Internet content is looking for you

May 2 2013, by Shannon Chapla

Where you are and what you're doing increasingly play key roles in how you search the Internet. In fact, your search may just conduct itself. This concept, called "contextual search," is improving so gradually the changes often go unnoticed, and we may soon forget what the world was like without it, according to Brian Proffitt, a technology expert and adjunct instructor of management in the University of Notre Dame's Mendoza College of Business.

Contextual search describes the capability for search engines to recognize a multitude of factors beyond just the search text for which a user is seeking. These additional criteria form the "context" in which the search is run. Recently, contextual search has been getting a lot of attention due to interest from Google.

Utilizing contextual search, Google Now provides information based on location, and by accessing calendar entries and travel confirmation messages in Gmail accounts. Available on Android for the last six months, Google Now was just released for the iPhone/iPad platform.

"You no longer have to search for content, content can search for you, which flips the world of search completely on its head," says Proffitt, who is the author of 24 books on mobile technology and personal computing and serves as an editor and daily contributor for ReadWrite.com, one of the most widely read and respected tech blogs in the world.

"Basically, search engines examine your request and try to figure out what it is you really want," Proffitt says. "The better the guess, the better the perceived value of the search engine. In the days before computing was made completely mobile by smartphones, tablets and netbooks, searches were only aided by previous searches.

"Today, mobile computing is adding a new element to contextual searches," he says. "By knowing where and when a search is being made, contextual search engines can infer much more about what you want and deliver more robust answers. For example, a search for nearby restaurants at breakfast time in Chicago will give you much different answers than the exact same search in Tokyo at midnight."

Context can include more than location and time. Search engines will also account for other users' searches made in the same place and even the known interests of the user.

"Someday soon," Proffitt says, "you'll watch a trailer of the latest romantic movie, and the next time you search for movie times at the local theater, that movie will be prominently displayed."

Also on the horizon, contextual searches may be teamed up with the Internet of Things, a euphemism used to describe an inter-connected network of devices large and small, reporting data on what's going on around them.

"Imagine a part in your car sending a malfunction signal that schedules your car for a repair appointment," Proffitt says, "followed up by an automated function that checks your calendar online and schedules the appointment for you. Or, consider a hydro-sensor in your garden that sends you a message to let you know the plants need more water."

This is just the tip of what the Internet of Things will do, according to

Proffitt.

"Coupled with contextual searching, it could transform our online experience to something where, instead of us searching for knowledge, objects and machines around us will be delivering information to us or taking direct action," he says. "Clothes could grow more opaque if the UV rating is too high on a given day. Pricing information for a new TV in the electronics store might display right on your phone. Nutrition information for cupcakes in your favorite bakery…"

"It will all be there at your fingertips."

Provided by University of Notre Dame