We can’t understand our current state of affairs without knowing the way we thought and acted in the past any more than we can fully understand a neighborhood without remembering the forces that shaped it.

Last night, I sat down with the ubiquitous tool of our age, the search algorithm, to discover the tenor of our times, the fundamental idea that differentiates our age from its predecessor. I had been thinking about an earlier conversation with Jordan, a young entrepreneur who was creating a new company in the very neighborhood where I had worked during my graduate years in Seattle. The neighborhood looked much the same as it had in my time, but it had a new feel, a new energy.

Jordan is taking a fresh look at search and returning us to a time when it was a new and innovative idea. Hans Peter Luhn developed the ideas for search in the late 1950s. He wanted to design an automatic technology to replace the taxonomies and filing systems we had used to store and retrieve information. Instead of using these traditional systems, he wanted the words within the document to tell us how they should be filed and how they could be retrieved. To him, search would not only help us find information, it would also tell us what it meant.

As I poked and prodded with the various search tools, I eventually concluded that we live in the age of innovation. The word “innovation” is mentioned roughly 40,000 times in IEEE’s digital library. Slightly fewer than 80 percent of those references occurred in the past 15 years. To find a concept that’s more prevalent in IEEE’s library, you have to turn to old stalwarts such as “electronic” or “software engineering.”

Of course, word counts in electronic libraries are suspect. In IEEE’s library, the search command looks at metadata that editors and contractors have assembled over the past 15 years, complete with some obvious misclassifications and anachronisms. It identifies a 1917 paper, for example, as being about software engineering, a subject that wasn’t named as such until 50 years later.

However, if you search in other digital libraries created by other institutions and organized in other ways, you find the same pattern. In the comparable sections of ACM’s digital library, the ProQuest Research Library, LexisNexis, JSTOR, Congressional Quarterly, and even The New York Times, recent authors are deeply interested in the concept of innovation. Those who published more than 15 years ago, however, aren’t. In ACM’s library, the shift is highly pronounced, with 99 percent of the references to innovation being published after 1998.

Innovation is not the same thing as invention, although we often use the word as if it were. When we innovate, we usually disrupt markets and displace old technologies in the hope of creating more wealth. My old Seattle neighborhood has been innovated in a way that has removed most of the old transfer business as well as most of the drunks. Jordan plans to innovate information retrieval in a way that destroys search and revigorates taxonomies with machine learning. Your computer will study how you work and build a history of how you should store information. Perhaps his work will become the tenor of a later time, but for the moment, we live in the age that likes to assemble lists of documents with common words or phrases and then ask if they contain something new, something innovative.

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