

Facilitating serendipity

Exaptive repurposes big sets of data

BY JIM STAFFORD
For The Oklahoman

Ask any ink-stained wretch who toils in a newsroom to describe history's most important invention and the answer most likely will be the printing press. Back in the 1400s, the story goes, Johannes Gutenberg watched a wine press in action and visualized the printed pages of the Bible.

You can look it up on your smartphone.

Gutenberg adapted the principles of the wine press and used it as the foundation of the first printing press. His innovation became a perfect example of a concept called exaptation, which is taking an existing idea and repurposing it for use as something else.

That's the concept behind Oklahoma City's Exaptive, a startup with a mission to "facilitate serendipity," said its founder, Dave King.

Exaptive does that by enabling the manipulation of large amounts of data so that diverse, disparate data sets can be synthesized, analyzed, and used as the foundation for new ideas. The Exaptive technology connects data contained in databases that weren't originally built to connect with other data or analytics technology.

"The problem that Exaptive solves is making data science easier," King told me as we sat in a small conference room at the Exaptive Midtown headquarters.

Exaptive now has worldwide clients using its technologies that allow users to analyze large amounts of data and derive unexpected insights. That could be looking for patterns of gene mutation in a big database of cancer tumors to better understand which treatments are best suited to which patients, or navigating



Exaptive adds value to big data to assist customers in the decision making process. (PHOTO BY JIM STAFFORD)

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Watch a video about how Exaptive works to examine large sets of data and extract insights.

the scientific literature about post-traumatic stress disorder to illuminate contradictions in the research.

Clients range from the international Gates Foundation to Boston-area clients to military intelligence users to Oklahoma City's Moleculera Labs.

King is a graduate of MIT in Boston who worked for more than a decade for a startup that made high-efficiency power supplies. The company collected data on all aspects of its manufacturing process to provide quality insights to its engineers and customers.

Questions unknown

"That helped me see what a differentiator having data could be and how valuable the data was to people who are particularly interested in it," he said. "It's one thing to design a data system when you know ahead of time the questions that you are going to ask, but it's much more challenging to design a system that will help you answer questions that you don't know you are going to ask ahead of time."

Eventually, King founded Exaptive as a Boston-area startup. The

company relocated to Oklahoma City in 2014 when his wife, Deonnie Moodie, took a position as a professor of religious studies at the University of Oklahoma.

"I was nervous about moving here, but have been delighted to find a city that is in the process of redefining itself and using that opportunity of redefinition to focus on high-tech entrepreneurial endeavors," he said. "That's something that is very exciting and that I'm proud to be a part of."

King has embraced his adoptive city by becoming active with the Creative Oklahoma not-for-profit where he sits on the board of directors. He also has created a monthly meetup called Data Plus Creativity at the Exaptive for anyone with interest in Big Data issues.

Soon after relocating to Oklahoma City, King established a relationship with i2E Inc., the not-for-profit investment and business advisory company. That connection benefited his company in myriad ways, including a \$1.8 million seed round that i2E led with a \$750,000 investment.

"i2E has been a great partner, not only financially, but i2E has helped



Dave King

us connect to some business opportunities in the state, has helped us connect to publicity opportunities and also has provided mentorship advice," he said. "Those are all of the sorts of things you hope for when you have a partner."

King has become a popular speaker to audiences across the nation, and internationally, on topics such as the future of big-data, and how to build systems that facilitate collaborative innovation — a major mission for Exaptive.

"Exaptive's ultimate goal is to foster community-based collaboration and innovation, and to provide a 'Xap Store' that jump-start entrepreneurial activity in areas like Oklahoma City," he said. "The time is really ripe for a Silicon Valley in the Midwest. I think we have all the ingredients here to make it happen."

Now that's exaptation.

Jim Stafford writes about Oklahoma innovation and research and development topics on behalf of the Oklahoma Center for the Advancement of Science & Technology (OCAST).