Keeping Up With the Bloggers

When UTSC Computer Science Professor Nikos Koudas (photo below) looked at how people were connecting via the Web, he saw the same phenomenon that everyone sees: countless individuals around the planet simultaneously exchanging information, sharing ideas and voicing opinions. The difference for Koudas was that he wanted to bring some order to that chaos of disparate voices and disparate points of view. Drawing on his expertise in data management, web search and data analysis and mining, he began researching new techniques for warehousing and analyzing text data from across the Web.

The result was BlogScope, an analysis and visualization tool capable of automatically tracking some 40 million blogs containing more than 1 billion posts—and counting. "BlogScope helps users discover interesting information from these millions of blogs," Koudas explains. "The system has a set of unique features for analyzing vast amounts of text-based content. You can plot popularity curves showing the interest level in a particular topic over time and identifying what we call 'information bursts' along the curve. You can also conduct searches by keyword or related term, as well as geographically."

Although initially focused on the blogosphere, the new system can easily be extended to collect and analyze any streaming text source. And with the explosion in social networking, a tool that can help find meaningful patterns in that vast chorus of voices clearly has a strong appeal for marketing-based companies and other organizations trying to understand what their target audiences are thinking and talking about.

Recognizing a promising opportunity, Koudas has channeled his research into a new commercial venture—a social media analytics company called Sysomos. Currently on a sabbatical from UTSC, he has secured start-up financing from Ontario Centres of Excellence and a venture capital firm, and is working with his former graduate student Nilesh Bansal to launch the new business. By giving customers the ability to analyze user posted content from personal blogs as well as Facebook, Twitter and other social media channels, Sysomos can help better define prevailing opinion around a product, brand, public figure or event. Unlike other systems that simply track how frequently a topic is mentioned, Sysomos can dig deeper, cross-referencing geographical and demographic data (age, gender, region or employment sector) to better understand who is saying what—and the nuances of sentiment that differentiate them.

"We provide businesses, brands and agencies with the kind of real-time insight they haven’t been able to get before," says Koudas. "We help them see not only what’s happening but where it’s happening, what it means and who’s driving the most important or relevant conversations." Now fully launched with offices in downtown Toronto and a growing list of high-profile clients, Sysomos represents a perfect example of advanced research connecting with real-world needs—and producing tangible results in the community.

More Program Options

To better meet the needs of UTSC students pursuing interdisciplinary studies, in 2009 CMS introduced two minor programs in Computer Science and Statistics, adding to our existing array of four specialist and three major programs. All CMS specialist and major programs include a co-op option with work placements in which students apply their skills and explore future career possibilities.

We have also collaborated with other UTSC departments to develop a number of interdisciplinary programs, including Management and Information Technology, Natural Sciences and Physical & Mathematical Sciences. In total, CMS faculty each year offer about 80 courses and 90 lecture sections to students across the campus.