Emirates ICT Innovation Center at Khalifa University Develops Tool to Measure Happiness on Social Media

Tool will be used by the Statistics Center Abu Dhabi to gather valuable information on how people across the country are feeling

The Emirates ICT Innovation Center (EBTIC), located at Khalifa University of Science and Technology, an ICT research and innovation center established by Etisalat, British Telecommunications (BT), and Khalifa University and supported by ICT Fund, has developed a tool that measures sentiment across social media in the UAE. The creation of the tool follows the signing of an MOU between EBTIC and the Statistics Center Abu Dhabi (SCAD).

The tool uses Twitter to assess sentiment across the country and generates a detailed map of the location and density of happiness nationally. Current work focuses on increasing the tool's accuracy in analyzing Arabic tweets, and categorizing them based on areas of interest to SCAD and its customers, for example education, health, and economy.

"We are proud to see our researchers participate in an innovative project like this", said Dr. Arif Sultan Al Hammadi, Interim Executive Vice President of Khalifa University of Science and Technology, "Our researchers always engage with projects that are significant to the UAE's economy and achieving happiness, one of the goals set by the UAE government. We at KU, through research and active participation of our researchers and students, contribute to achieving those goals."

"Since its inception, EBTIC has been active in the field of social-media analysis, one of our strategic research priorities," said Dr. Nawaf Almoosa, Deputy Director of EBTIC. "Our proposed techniques have generated numerous patents and scientific publications and are being applied to assess customer satisfaction and event detection by Etisalat and British Telecom. Right now, happiness is one of the most important national goals in the UAE and Twitter offers first-hand insight into the thoughts, feelings and concerns of the population. That is why developing a tool that analyses the large volume of social media content in real-time, and providing it in a visual form that enables interpretation is important."

Dr. Nawaf also said: "We are delighted to be working with Statistics Center in Abu Dhabi (SCAD) as one of our strategic government partners in this project. This partnership stems from EBTIC's objective to develop solutions tailored to solving problems related to the UAE's society and economy. We hope to see this partnership grow even further and, with the help of SCAD, to expand it into other research areas that are of particular interest to the emirate of Abu Dhabi and the UAE."

For his part, HE Butti Al Qubaisi, Director General of Statistics Centre - Abu Dhabi (SCAD), praised the joint cooperation between SCAD and the EBTIC research and innovation centre in the areas of big data and advanced predictive analytics, emphasizing the importance of teamwork and cooperation for the development of Abu Dhabi's statistical system and the achievement of the vision of the emirate's Government.

HE Dr. Butti Al Qubaisi pointed out that the Statistics Centre seeks to shift towards smart electronic statistical surveys and reliance on big data and administrative records in order compile accurate statistical indicators at the lowest possible cost. The Centre achieved tangible achievements in this regard, cutting the costs of field surveys by 72% last year.

As Al Qubaisi observes: "The detailed study and exploitation of the different types of big data is likely to open the broad prospects for statistical work in the Emirate of Abu Dhabi. SCAD is therefore very interested in the subject of big data as a potential source of official statistical data in the future. In this regard, the Centre has embarked on a number of projects, including the project being implemented in cooperation with EBTIC, which aims to utilize big data from social media in the production of important statistical indicators, thus reducing the burden on respondents the costs of data collection".

He also pointed out that the use of big data in official statistics around the world is still a nascent field, so SCAD can present statistical agencies with a practical experience in adapting big data for official statistical uses. The Center is currently seeking to build the necessary technical capabilities and acquire all electronic and technical tools and methods conducive to efficient manipulation of big data, supporting its own efforts with expertise from specialized agencies.