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## **UBIC Provides Consulting Services for a New Tool which Visualizes the Learning Process of its AI**

### **An Approach to Boost Review Accuracy by Dynamically Visualizing the Text Analysis Process**

NEW YORK, Sept. 25, 2015 (GLOBE NEWSWIRE) -- UBIC, Inc. (Nasdaq:UBIC) (TSE:2158) ("UBIC" or "the Company"), a leading provider of AI-based, big data analysis services, today announced that it has invented a visualization analytics tool, which offers users a tangible data representation of the dynamic learning process of its AI. UBIC will begin providing consulting services that leverage this tool to enhance the efficiency and accuracy of document review.

UBIC provides solutions to companies trying to protect themselves from preventable risks that could lead to antitrust investigations involving ESI. Lit i View EMAIL AUDITOR, UBIC's AI-driven proprietary email auditing system, automatically processes vast amounts of corporate emails to search for these risks.

Virtual Data Scientist (VDS), the AI integrated into the EMAIL AUDITOR, can teach itself to analyze data just like a seasoned Auditor by learning from the Auditor's previous experiences and judgments during eDiscovery or antitrust investigations. When the learning process ends, the VDS can step in on behalf of the Auditor, analyze an astonishing volume of texts and emails, and expose suspicious communications and actions that may be associated with information leakages and cartels. Moreover, its productivity rate far surpasses human capacity.

UBIC introduced this consulting service to address questions often raised by clients after implementing the LiV EMAIL AUDITOR, including, "How proficient is AI-driven e-mail auditing?" and "How long will it take for the AI to gain traction and become a practical auditing tool?"

Previously, UBIC created tables when presenting the analytical results of the VDS, but using graphs and time series for visualization has made it much easier for users to understand how the AI's analytical abilities develop and improve. This is at the very core of UBIC's new consulting services.

The growth of the AI is measured by constantly checking whether the AI can score documents in line with the results of human judgments. In other words, the AI's intellectual evolution is determined by tracking how the distribution of relevant vs. irrelevant documents changes over time.

There are three steps in the progress of the AI's intellectual growth: 1. Initial Growth; 2. Continued Growth; and 3. Maturity. If the AI reaches Maturity, this indicates that the email auditing system is stable and working consistently.

### **Distributional changes representing the AI's intellectual growth pattern (a typical sample vs. the actual VDS performance)**

To give an illustration, the following sets of graphs show a sample of a typical AI's intellectual growth on the right-hand side, and a distribution resulting from the VDS's actual performance on the left-hand side. If the results of the two become more and more similar, it signifies that the VDS is progressing in the right direction. By having the graph's horizontal axis represent the scores from the latest round, and the vertical axis the scores of the previous round, users can trace a trend over a period of time.

#### **Initial Growth Period**

According to the sample on the right, the Auditor's assessment criteria and those of the VDS are still a little different at this stage, as indicated by the scattered dots representing the assessment results. The discrepancies are apparent, and this causes scores to vary. Even in the actual case, (covering the period from Day 1 to Day 10) such variation is apparent, indicating that the VDS's learning process is incomplete, or in other words, the VDS does not completely "get it" yet.

Figure #1 accompanying this release is available at <http://media.globenewswire.com/cache/26105/file/37573.pdf>

#### **Continued Growth Period**

As the VDS is given more and more time to learn, it will assign high scores to an increasing number of documents judged as

relevant by the human auditor. In the typical graph, the red dot distribution of "relevant documents" begins to move towards the lower right portion of the layout. A dot in this area indicates that "a document previously assigned a low score is now assigned a high score." By contrast, the cluster of "not relevant" dots begins to move more towards the area signifying that "the previous score was high, but the current score is low". For the actual case covering the period from Day 17 to Day 24, more and more dots are appearing in the high score area representing "relevance", and this indicates that the discerning power of the AI is improving.

Figure #2 accompanying this release is available at <http://media.globenewswire.com/cache/26105/file/37574.pdf>

## **Maturity**

As the AI progresses even more from Day 24 to Day 59, the typical model and the actual model both begin to feature email clusters in the high-score area. A dot in this area indicates that the Auditor believes the document is relevant to the case. In contrast, the ones not relevant are concentrating in the low score area. The concentration of dots along the standard growth line indicates that the AI's learning process has progressed ideally and stabilized.

Figure #3 accompanying this release is available at <http://media.globenewswire.com/cache/26105/file/37575.pdf>

At UBIC, the Advanced Data Analysis & Product Dept. provides consulting services based on analysis of the VDS learning process. Also, the visual analytics presented here were developed by Yuki Hikone, the Forensic Team Leader and member of this department, based on ideas originated and findings gathered during his projects. This new method offering visualization enables users to intuitively measure the AI's growth and to understand whether the growth rate and precision rate are on the right track.

Kazumi Hasuko, Senior Fellow of the Behavior Informatics Laboratories at UBIC Inc. commented, "Every time an Auditor introduces additional assessments to the AI, the AI teaches itself to learn from the properties of these assessments and to optimize its own scoring task. As shown in the Figures, each learning and scoring iteration widens the gap between the score distribution of relevant vs. irrelevant documents, and this means that the VDS, by extrapolating from the Auditor's assessments, is learning to classify the documents more accurately."

## **About UBIC, Inc.**

UBIC, Inc. (Nasdaq:UBIC) (TSE:2158) supports the analysis of big data based on behavior informatics by utilizing its technology, "VIRTUAL DATA SCIENTIST" or VDS. UBIC's VDS technology is driven by UBIC AI based on knowledge acquired through its litigation support services. The VDS incorporates experts' tacit knowledge, including their experiences and intuitions, and utilizes that knowledge for big data analysis. UBIC continues to expand its business operations by applying VDS to new fields such as healthcare and marketing.

UBIC was founded in 2003 as a provider of e-discovery and international litigation support services. These services include the preservation, investigation and analysis of evidence materials contained in electronic data, and computer forensic investigation. UBIC provides e-discovery and litigation support by making full use of its data analysis platform, "Lit i View®", and its Predictive Coding technology adapted to Asian languages.

For more information about UBIC, contact [usinfo@ubicna.com](mailto:usinfo@ubicna.com) or visit <http://www.ubic-global.com>.

## **Safe Harbor Statement**

This announcement contains forward-looking statements. These forward-looking statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements can be identified by terminology such as "will," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates" and similar statements. Among other things, the amount of data that UBIC expects to manage this year and the potential uses for UBIC's new service in intellectual property-related litigation, contain forward-looking statements. UBIC may also make written or oral forward-looking statements in its reports filed with, or furnished to, the U.S. Securities and Exchange Commission, in its annual reports to shareholders, in press releases and other written materials and in oral statements made by its officers, directors or employees to third parties. Statements that are not historical facts, including statements about UBIC's beliefs and expectations, are forward-looking statements. Forward-looking statements involve inherent risks and uncertainties. A number of factors could cause actual results to differ materially from those contained in any forward-looking statement, including but not limited to the following: UBIC's goals and strategies; UBIC's expansion plans; the expected growth of the data center services market; expectations regarding demand for, and market acceptance of, UBIC's services; UBIC's expectations regarding keeping and strengthening its relationships with customers; UBIC's plans to invest in research and development to enhance its solution and service offerings; and general economic and business conditions in the regions where UBIC provides solutions and services. Further information regarding these and other risks is included in UBIC's reports filed with, or furnished to the Securities and Exchange Commission. UBIC does not undertake any obligation to update any forward-looking statement, except as required under

applicable law. All information provided in this press release and in the attachments is as of the date of this press release, and UBIC undertakes no duty to update such information, except as required under applicable law.

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