Collaborative AI
for knowledge discovery

Collaborative AI is revolutionizing the way government users gain insights from unstructured data

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IN OUR INCREASINGLY competitive, multilateral world, decision-makers must connect the dots between huge quantities of data spread across disparate data sources. With so many processes generating critical information in stovepiped repositories with rich metadata and context, how do you leverage this information in place and in context? To accomplish this, analysts often craft complex queries that combine the flexibility and deep knowledge of humans with the speed and scale of computers.

However, it is possible to leverage machine learning algorithms in a more flexible, more natural way — with the use of collaborative artificial intelligence. For algorithms that combine human and machine processing, collaborative AI tightens the feedback loop so that end users can drive machine intelligence in their natural workflow.

Accelerating government insights

Letting user actions retrain a machine learning model is not new. For example, recommender engines have been telling us what else to put in our online shopping carts for 20 years. That "wisdom of the crowds" relies on many people repeating a task for nearly the same objective.

Crowd-based approaches often don't work for government users who are doing high-value, knowledge-based tasks. For example, a key document might not have been opened by a single person — let alone a "crowd" — in years. Furthermore, the government is often the only entity that can perform particular activities, such as approving licensing and permitting applications and conducting law enforcement. Therefore, government activities often require deep research and digging through huge amounts of unstructured data, which consumes vast amounts of personnel resources and time.

Salesforce can enable users to focus on the more creative task of learning about key connections to develop a deeper understanding of the subject, rather than manually querying document repositories. There are capabilities that automatically formulate queries to find new content in real time and perform rote querying faster than a user could even type a search query.

Measuring the impact on the end user's goal

Assessing the success of information retrieval tools involves gathering feedback on the user experience and measuring whether the tools are producing valuable results. The Text Retrieval Conference, co-sponsored by the National Institute of Standards and Technology and the Defense Department, has helped establish protocols for determining which approaches are most effective at helping end users accomplish a task. As a result, many commercial products have improved tremendously.

At Salesforce, information retrieval evaluations are an important way for us to think about our impact and understand the larger role that collaborative AI plays in supporting government and society. ◾

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WHAT DOES THE FUTURE OF COLLABORATIVE AI MEAN FOR THE FUTURE OF GOVERNMENT?

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