I first learned of robot journalism about five years ago. A start-up called StatSheet had created software that took electronic versions of baseball scorecards and turned them into news reports. Known since 2011 as Automated Insights, the company and its competitors work with media outlets to automatically generate thousands of news stories a year.

For now, the stories are confined to game summaries, earnings reports, and other topics in which the principal content resides in readily harvestable data. But there are signs that robot writers are expanding their reach and becoming more capable. In a recent Journal of Science Communication editorial, science editor Mico Tatalovic discusses the prospects and implications of robot science writers (https://jcom.sissa.it/sites/default/files/documents/JCOM_1701_2018_E.pdf).

Writing about science might seem a tough challenge for a robot or, more accurately, an algorithm embodied in computer code. Science, especially physics, is rooted in abstract concepts and is replete with specialized terms. Among the new tools that Tatalovic describes is an artificial intelligence (AI) called Manuscript Writer, which the company sciNote released last November. The AI is a new feature in the company’s electronic lab notebook, ELN. Once a scientist has all of his or her data and lab notes in ELN, Manuscript Writer steps in to write a report.

“The feature allows me to assemble and present data in a way that can lead to a publication with only minor modifications from me,” is a quote from a happy user, Tessa Grabinski of the University of Michigan, that Tatalovic found on sciNote’s website. The quote continues: “Not only does the new feature generate manuscripts quickly, it also provides several versions that can be used to assemble that perfect publication for your data.”

Writing a scientific paper is not the same as writing a news story about it. Still, a new AI out of Columbia and Stanford universities called Science Surveyor can automatically establish a paper’s context and significance, one of the key steps in science journalism. Fed an abstract and reference list, the AI trawls the corpus of scientific literature to return a list of experts, a plot of how the field has evolved, a reading list of background information, and an evaluation of whether the paper is in the mainstream or an outlier.

Why do Manuscript Writer and Science Surveyor succeed? The answer, I believe, is hinted at by Grabinski’s quote. Ultimately, what usually counts in a scientific paper are results and theories embodied in plots and mathematical formulae.

ABOUT THE AUTHOR

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