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Automation or Augmentation for Business Reporters?

By Thomas H. Davenport

You may have read that the [Associated Press recently did a deal](#) with software company [Automated Insights](#) to provide automated stories on company earnings. The software will eventually produce over 4,000 stories per quarter. This is not the first development in automated news; Ai will produce over a billion stories this year on topics like financial reports, fantasy football team results, and web analytics. Its rival startup, [Narrative Science](#), produces stories for Forbes and a variety of financial firms.

The AP initiative does, however, represent a big step toward the institutionalization of automated financial reporting. The key question for me is whether this kind of intelligent technology is likely to automate (i.e., replace) business and financial reporters, or augment them—do things that human reporters don't want to do or don't have time to address. I [addressed this question](#) in general a few weeks ago in another post. To understand this set of issues in the reporting context, I spoke with Ai founder Robbie Allen and AP vice president and managing editor (for business and sports news, among other domains) Lou Ferrara.

Both gentlemen are united in the argument that this is a case of augmentation, not automation. The AP is keeping all its employees (which Mr. Allen says is generally true at his customers), and Mr. Ferrara says that these Ai-developed stories will only add to the content that business reporters already produce. Both also agree that while the quality of the earnings report stories is high, it doesn't replicate the types of stories that a good human reporter can churn out. Mr. Ferrara says that activities like “beat reporting, investing in and developing sources, obtaining documents, and talking to company leaders” are characteristically human. For important companies' earnings announcements, the AP will augment its automated reports with human-generated content. Ai founder Mr. Allen agrees that, “Humans are the best at going beyond quantified content—things like the senses and smells behind the news.”

Slate reporter Will Oremus, in a nice piece of human reporting, [provides a comparison of two earnings stories on Disney](#)—one produced by Ai, and one by a good human writer. The human-generated story definitely provides more context and useful slant.

However, I am not persuaded by Mr. Oremus or other defenders of human reporting that such journalistic niceties aren't eventually possible from smart machines. Mr. Oremus provides an example of an Ai-written sports story with an intentionally snarky slant, and I could imagine that the detail and context (recent successful films, and a lesson about the value of acquiring content brands) in the human Disney example could be provided by an intelligent system. After all, the

[IBM](#) Watson Jeopardy contestant was able to understand the sorts of arcane wit and wisdom found in that game's questions (actually its answers), and it's not a huge leap to imagine it generating such interesting content.

And in the realm of automated company reporting, it's already possible to get into much more depth than the AP stories will plumb. CapitalCube.com, an offering of the Canada-based company AnalytixInsight (disclosure: I am an investor in the company, and was at one point an advisor to it), provides textual financial analysis on over 45,000 equities based on data from FactSet. It reports or speculates on such esoteric issues as earnings quality, costs relative to competitors, accounting practices, and the likelihood of such future corporate actions as dividend announcements, share buybacks, and acquisitions. That system was created not to augment financial reporters' work, but rather that of investment analysts. As with the AP/Ai system, I don't think CapitalCube has made any analysts lose their jobs, but it does provide coverage on the thousands of public companies that don't enjoy the attention of a single analyst.

Even if the pattern here is one of augmentation rather than automation, there are some lessons for humans wishing to report or opine on quantitatively-oriented subjects like business and sports. Robbie Allen from Ai commented, "If you're getting into business to write about numbers, that's not a good future." Mr. Ferrara says that one opportunity may result from learning about how these automated content generation machines work: "Many reporters will need to understand electronic reporting in some form—how it works and how to improve it. There will be jobs that involve overseeing these systems." Ferrara likened the situation to one described by Tom Friedman [involving the development of automated cow milkers](#): "Overnight, an average farmhand went from knowing how to milk a cow to having to learn how to program and operate the robotic cow-milker — to keep a job."

So in the short run, reporters and editors don't have much to worry about. In the long run, as with many other types of knowledge workers, they will need to understand, tend, and improve the machines with which they share the work of content generation. I'm sure that some traditional scribes are skeptical about this new development, but I suspect that over time they will see the value of making friends with smart machines.

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