

# Supporting Content Marketing with Natural Language Generation

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Cite as:

Reisenbichler Martin, Reutterer Thomas, Schweidel David, Dan Daniel (2021), Supporting Content Marketing with Natural Language Generation. *Proceedings of the European Marketing Academy*, 50th, (93711)

Paper from the 50th Annual EMAC Conference, Madrid, May 25-28, 2021



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## **Abstract**

Advances in natural language generation (NLG) have facilitated technologies such as digital voice assistants and chatbots. In this research, we demonstrate how NLG can support content marketing in search engine optimization (SEO). Traditional SEO projects rely on hand-crafted content that is time consuming and costly to produce. To address the costs associated with producing SEO content, we propose a semi-automated methodology using state-of-the-art NLG and demonstrate that the “content writing machine” can create unique, human-like SEO content. Comparing the resulting content with human refinement to traditional human-written SEO texts, we find that the revised, machine-made texts are indistinguishable from those created by SEO experts. We conduct field experiments in two industries and show that the resulting SEO content outperforms that created by human writers (including real SEO experts) in search engine rankings and website engagement, and substantially reduces production costs.

**Keywords:** *SEO; content marketing; machine learning*

**Track:** Methods, Modelling & Marketing Analytics