



Radiology and AI perspectives through social media



Keeping 'an ear to the ground' through social media to follow and join in conversations regarding the impact and potential of AI in radiology applications is increasingly gaining new 'followers'. In a study published in the *Current Problems in Diagnostic Radiology*, researchers present an overview of using [Twitter](#) to characterise public perspectives regarding AI and radiology.

The report states that while there remain to be challenges, the discussions analysed were overwhelmingly positive toward the transformative impact of AI on radiology. In addition, the overall consensus showed perspectives were against the argument that AI may be replacing radiologists. The researchers suggest that radiologists should engage more in this online social media dialog.

You may also like: [How-to 'Twitter': Starter's guide to navigating the radiology Twitterverse](#)

The study found conversations on the role and potential of AI in radiology continue not only within the medical community, but also in the public sphere. Twitter helped researchers reveal many of the major themes, stances, and public perspectives within these conversations. Researchers observed that a wide spectrum of users were engaged in this online social media dialog regarding AI and radiology. The types of users that posted on this topic presented a diversity of backgrounds of individuals and organisations.

While users that were analysed included many individuals and organisations with a healthcare background, and there was also substantial representation from industry and media-related individuals and organisations. Furthermore, although many of the users were centred in the United States, over one third of users were connected internationally. The professional and geographic diversity of users found in the study, reflects a more complete assessment of the discussions on AI in radiology than is perceived just within United States-focused academic circles.

Views on the potential impact of AI on radiology were found to reflect attitudes toward AI's documented or projected influence in radiology. The tweets the study examined were mostly neutral respectively, though the linked websites were overwhelmingly positive and optimistic toward AI's impact on radiology. Specifically, the study found that the majority of included links referenced efficiency and workflow improvements. Past academic discussions also identified opportunities for AI to improve efficiency and create more optimal workflows, while others compared AI's potential to previous digital transformations in the field.

The conversations on the role of AI in radiology will likely change over time as AI continues to develop and new innovative solutions are implemented in the clinical setting, states the study. Even within the 1-year time period of this study, the frequency of tweets that leaned toward AI having a favourable

impact on radiology increased slightly from the first 6 month period to the second 6 month period, which may reflect broader shifts in public opinion on this topic.

Despite the overall favourable stance, various challenges and concerns served as recurring themes. Over a third of links mentioned at least one challenge regarding AI in radiology, most commonly associated with legal and/or regulatory issues. These issues have been referenced in the published literature as well and have been noted to possibly obstruct the potential of AI to replace radiologists.

AI replacing radiologists has been a major concern to radiologists in practice, and unsurprisingly was the second highest theme in tweets posted by radiologists. Among the links that recognised the possibility of AI replacing radiologists, the vast majority leaned against this actually occurring. Similarly, numerous articles in the peer-reviewed literature lean against AI replacing radiologists as well. The fact that a majority of links mentioned efficiency and workflow improvements, and that a majority of links discussing the issue leaned against AI replacing radiologists, reflect a commonly held view that AI will in fact benefit the field of radiology through improved efficiency but not through replacing radiologists altogether.

A notable trend throughout the user categories and tweets was a strong industry presence. There were more industry-related individuals involved in this Twitter discussion than any other user category, including all physicians combined. Moreover, industry was the second highest theme mentioned within the tweets. This presence reflects the strong industry influences that have heretofore driven much of the development of AI in the field.

The implications of this study relate to acknowledging the variety of individuals, organisations, and perspectives involved in the discussion of AI in radiology. Twitter provides a platform through which anyone with access to the Internet can engage in such discussions, which significantly expands this conversation outside of the academic sphere. Especially considering the large industry presence in this field, radiologists are encouraged to play a substantial role in the development and implementation of AI.

Radiologists can more fully engage with the expansion of AI though participating in these wider discussions, even if not working directly on these tools. Participating in social media discussions allows physicians to readily share their perspectives with others, including industry-related individuals who may be actively involved in developing AI applications for radiology.

One study found that Twitter was identified by American radiologists as their top professional choice for a social media platform, which further supports the use of Twitter as a straightforward tool for these purposes. Physicians are intimately aware of clinical challenges and potential opportunities for successful implementation of AI tools. On an institutional level, the American College of Radiology established the [Data Science Institute](#) in 2017 in part to engage radiologists in the process of developing and applying AI to radiology. As radiologists continue to engage with new clinical developments, it is important for physicians to remain active within the broader AI conversations.

Limitations of this study relate to constraints common in social media research. Only tweets that included the words “**artificial**,” “**intelligence**,” and “**radiology**” were included. Other tweets posted on this topic that used different terminology would therefore not have been included. Many social media platforms in addition to Twitter are also used to share and discuss content. The study notes that it may not reflect the full range of this social media discussion. Additionally, during the study time period, Twitter had a 140 character limit for each tweet. The available tweet space may have limited the users’ abilities to fully describe their perspectives and mention topics deemed to be relevant to AI in radiology. Only content in English was reviewed in the study.

The study reveals a **generally optimistic opinion on Twitter regarding the impact of AI on radiology**, especially when considering workflow improvements. While noting challenges, these social media discussions were overwhelmingly positive toward the transformative impact of AI on radiology and leaned against AI replacing radiologists. The stances and themes in the **social media conversations may reflect broader awareness on this topic and shifts in public opinion that have occurred since the initial advent of AI in medicine.**

Radiologists are encouraged to recognise the role of these public conversations and to engage widely with such discussions regarding AI in radiology.

Source: [Current Problems in Diagnostic Radiology](#)

Image credit: [iStock](#)

Published on : Tue, 28 May 2019