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Review Article

Radiology Education: The Role of Social Media in Learning and Collaboration

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Abstract

In recent years, the integration of social media platforms into medical education has significantly transformed the landscape of learning and collaboration in various medical specialties, and radiology is no exception. This review article inspects the multifaceted role of social media in revolutionizing radiology education while examining its impact on knowledge dissemination, professional networking, skill development, and academic collaboration. By examining the current practices, this article aims to discuss the transformative impact of social media in radiological education: its advantages, challenges, and future prospects.

Key words: Radiology education, social media, learning

INTRODUCTION

Medical education has traditionally been taught by conventional methods such as textbooks, lectures, and clinical rotations. However, the emergence of social media platforms has revolutionized the way medical education is perceived and radiology education is no exception. Social media platforms offer unique opportunities for collaboration, knowledge sharing, and continuous learning.[1] Traditional methods, while effective, may sometimes fall short of meeting the dynamic learning needs of modern learners.[2] Social media platforms offer a solution by providing accessible, interactive, and multimedia-rich environments conducive to effective learning.[3]

This review article explores the evolving landscape of radiology education in the digital age, focusing on the role of social media in enhancing teaching and learning experiences.

SHARING KNOWLEDGE

Social media platforms such as X (formerly Twitter), Facebook, and Instagram, YouTube have become invaluable tools for sharing educational content in radiology.[4] Radiologists and educators utilize these platforms to show interesting case studies, educational videos, journal articles, and updates on the latest advancements in imaging technology.[5] Hashtags such as #RadEd, #FOAMrad, and #Radiology are used to categorize and filter educational content, thus enabling learners to access relevant resources more easily.

Each of these platforms comes with its own unique selling points, for instance, on X there is a character limit that encourages concise communication, whereas YouTube and Instagram utilize multimedia resources to supplement learning.

These platforms also give the radiology aspirants a glimpse of what the life and learning of a radiologist is like.

PROFESSIONAL NETWORKING

Social media enables radiologists to connect with peers, mentors, and experts all over the world, making the world a global village!

Expert opinion can be sought readily and with much more ease. Platforms such as LinkedIn and Indeed also provide opportunities for professional networking, mentorship, and career advancement. Radiology-focused online forums and discussion groups on platforms like Facebook or X give learners a chance to seek advice, share experiences,

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and collaborate on research projects, thus, enriching their educational journey.[6]

SKILL DEVELOPMENT

Social media platforms offer interactive learning experiences that complement traditional educational methods. Radiology podcasts, webinars, and online workshops provide opportunities for learners to enhance their interpretative skills, stay updated on best practices, and engage in real-time discussions with experts. Virtual reality and augmented reality technologies are being integrated into social media platforms to create immersive learning environments for radiology training.

While these can be considered non-traditional methods of teaching and learning, it is fast becoming the way learners consume knowledge.

Gamification techniques are utilized by many of these platforms like Radiopedia[7,8] to enhance learner engagement and motivation in radiology education. Interactive quizzes, polls, case-based learning modules, and virtual simulations gamify the learning process making it a more versatile learning experience

While there are many benefits to learning on social media platforms, it is not without challenges.

Quality Control and Information Overload

The exhaustive amount of content available on social media may become very overwhelming for the novice learner and may distract and detract from focused learning objectives. It is also of paramount importance that the creators/educators share credible and verified content.

Due to this, the reliability of the content being showcased can be challenged.

Privacy and Ethical Concerns

Radiologists must adhere to patient confidentiality and ethical guidelines when discussing cases or sharing images on social media. Strict anonymity with regard to patient identifiable details must be followed. Learning must not be at the cost of patient identifiability.[9]

Digital Divide

Disparities in access to technology and digital literacy across different regions may be a hindering factor for the equitable utilization of social media in radiology education.

DISCUSSION

In exploring the different theories of education to analyze why there is a change in the way learners want to assimilate knowledge, the theories that stand out are constructivism[10] and connectivism.[11] While constructivism describes learners actively seeking to build on their existing knowledge by integrating new information, connectivism on the other hand describes learning through connecting with others and accessing information from varied sources. This fits in with how social media platforms aid networked learning where the learners are able to communicate with experts and peers from different parts of the world and enhance and build upon their knowledge.

It also provides learners with the flexibility and autonomy to tailor their learning experiences according to their needs and interests.

While traditional teaching methods which include textbooks and a more apprenticeship way of learning, still have a place in radiology teaching, it is becoming obvious that in the recent past, there has been a shift in the way learners want to assimilate knowledge and it is imperative to keep up with this change. However, in doing so, there should not be a compromise in the quality and content of the subject matter and the young radiologists should consider following only verified and credible sources.

CONCLUSION

New and engaging ways of knowledge dissemination using social media platforms are becoming increasingly popular. This is perhaps due to changes in the attention spans of the general population or the more engaging and captivating way content is presented on social media platforms.

Short videos are replacing the long-form content on YouTube, dance trends on TikTok, or skits on Instagram that showcase difficult concepts in a more enjoyable way.

While these in no way are able to replace the extensive learning that is expected of radiology trainees, they definitely make learning more enjoyable and provide a good initial exposure to concepts.

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