

APPLICATION OF NEW TECHNOLOGIES IN THE RADIOLOGY MARKET – DIRECTIONS OF DEVELOPMENT, OPPORTUNITIES, AND THREATS

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ABSTRACT

Radiology, a field continually evolving is currently experiencing transformative advancements. This paper explores the present state and future projections of the radiology market, emphasizing the role of artificial intelligence (AI) and virtual reality (VR).

With the proliferation of diagnostic equipment and increasing examination numbers, the radiology market demonstrates substantial growth potential. Projections indicate a surpassing of \$12 billion for the MRI market by 2030.

AI, particularly through machine learning algorithms, offers rapid, precise diagnoses, reshaping radiologists' workflows and decision-making processes. VR technologies enhance education and training, providing immersive learning experiences for medical students and professionals.

While AI promises efficiency and enhanced patient care, it also poses threats such as job displacement and challenges in data management. Adapting to these technologies will be essential for radiologists.

In conclusion, the radiology market is poised for expansion, driven by AI and VR innovations. However, careful consideration of implications, including workforce dynamics and data management, is necessary to ensure sustainable progress in the field.

Keywords: radiology, VR, artificial intelligence, radiology development

INTRODUCTION

Radiology, since the discovery of X-rays by Wilhelm Roentgen in 1895, has undergone remarkable evolution. Initially used only for diagnosing fractures and bone pathology, it is now a key diagnostic tool in many fields of medicine. Technological advancements, including the development of computed tomography, magnetic resonance imaging, and the latest applications of artificial intelligence, have significantly expanded the scope and effectiveness of radiological diagnostics.