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Editorial

Role of artificial intelligence (AI) in forensic and medical sciences

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The integration of artificial intelligence (AI) has become increasingly prevalent in various fields, revolutionizing Medical & Forensic Science and transforming the way we approach complex problems. Two domains that have witnessed a significant impact are medical and forensic sciences. AI has brought about a paradigm shift in medical sciences, enabling accurate diagnoses, personalized treatment plans, and improved patient outcomes. Machine learning algorithms can analyse vast amounts of data by early detection of diseases and providing tailored treatment recommendations. AI-powered imaging technologies have enhanced radiology, enabling faster and more accurate interpretations of medical images, such as X-rays, CT scans, and MRIs. Use of AI driven robotics system enhanced in assisting surgeon's during complex procedures enhancing precision and reducing human error. In the area research and development of new drug discovery by analysing molecular structures and predicting novel drug has been accelerate the new horizon of development process.

Forensic sciences have also embraced AI, augmenting investigation techniques and contributing to more effective criminal justice systems. AI algorithms can process vast amounts of data, such as fingerprints, DNA profiles, and surveillance footage, aiding in identifying suspects and investigating leads. Facial recognition technology, when used ethically and with appropriate safeguards, assists in locating missing persons and tracking down potential criminals. Furthermore, this proactive approach can lead to better crime solving and prevention strategies, thus, enhanced public safety. AI has brought significant advancements to medical and forensic sciences; it is essential to acknowledge that AI can also be misused for criminal activities.

AI has become an indispensable tool in medical and forensic sciences, propelling advancements in diagnostics, treatment, and criminal investigations. The potential benefits can not be denied; however, the ethical and legal implications must be addressed proactively. While use of AI for crime control it is important to look after and respect the individual privacy and civil liberties. AI-driven predictive analytics can help law enforcement agencies allocate resources effectively by identifying crime hotspots and predicting crime patterns. It is only possible by fostering collaboration between stakeholders, researchers, policymakers, technology developers, investigating agencies and judicial system, we can harness the positive potential of AI while ensuring its responsible and ethical implementation in the pursuit of public safety.

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