The Importance of AI and Data Imaging in Healthcare

Artificial Intelligence ("AI") technology and its integration into medical imaging and data processing continues to be a transformative force in the healthcare industry. The use of AI in healthcare has brought about more accuracy in disease diagnosis, more precise treatment plans for patients, and more trustworthy data for healthcare professionals to rely upon in making crucial decisions.

AI's adoption in the medical community has grown rapidly in the 21st century. It is estimated that revenue in the AI healthcare market will exceed over [$21 billion by 2026](). While AI can be used for many solutions in the healthcare industry, in this short blog post, we look specifically at AI and its use in imaging and data labeling.

AI and its use in healthcare has shown extraordinary accuracy and sensitivity in the identification of imaging abnormalities. Of course, more accuracy in diagnosis optimizes results and produces a more accurate treatment plan for the patient. AI provides the decision makers - the experts and doctors in the field - with the best data.
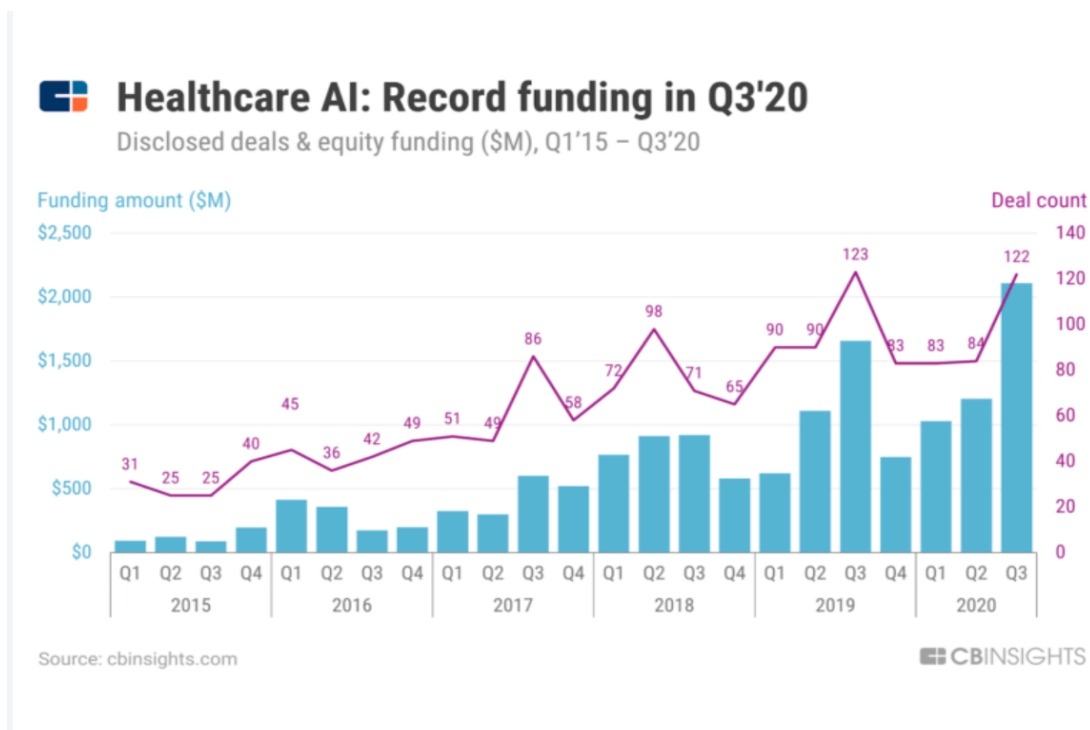
The experts can then use this accurate data to make sound and trustworthy decisions. AI use in medical imaging allows physicians to identify abnormal conditions more expeditiously, promoting early intervention, and giving the patients a better chance for full and healthy recovery.

AI has many ways of bringing forth solutions to problems in data collection and accurate decision making in healthcare. One of the more recent cutting-edge technologies in the field of AI is the use of semantic segmentation. Semantic segmentation is able to use AI technology to detect small objects, and to detect

abnormalities in these small objects to assist in the early detection of disease or sickness in patients. Indeed, the use of AI in analyses and review of mammogram and radiology images can speed up the process up to 30 times and with 99% accuracy.

Precisely labeled datasets are necessary for these accurate diagnoses. For this reason, the data labeling operation is the most critical part of the AI business application development. The saying garbage in equals garbage out has never been more important than when applied to the medical field. Every percent of non-quality in the labeling operation of a dataset, beyond being a financial loss, puts the accuracy of the diagnosis at risk. In the healthcare field, this type of risk should never exist.

The AI Imaging market is expected to have substantial growth due to an increase in the prevalence of diseases and technological advancements in the healthcare sector. As some of the key players in the AI and healthcare industry such as GE Healthcare, Fujifilm Holdings Corporation, and Aidoc, continue to invest in advanced technologies, and record funding pours into the healthcare AI industry.

AI firms such as SmartOne understand that data provided to healthcare professionals must be trustworthy and accurate but also as important is to navigate that data in a way that targets providing the most impactful and actionable data. If incorrect data is provided to experts it can be devastating to mission critical business operations and decisions. However, with the use of AI and smart data, healthcare professionals can feel confident that once aligned with a trusted and proven data labeling firm that their mission-critical business decisions will be that much more empowered and valuable.

If you are interested in learning more about how AI and smart data can help your organization optimize its data collection processes, kindly reach out to one of our data processing experts at SmartOne.