

Recognize Your Medical Imaging Data as an Asset

NTT DATA Advocate AI Services

Capabilities:

- Leverage imaging studies as predictors to further identify populations at risk
- Apply AI in the analysis of report findings for quality, patient care gaps and revenue gaps
- Use turnkey platform to develop and test algorithms — improving care delivery and quality
- Automate the validation of emerging third-party algorithms and their revisions for quality and diagnostic efficacy
- License your data through participation in the Advocate AI data cooperative to create a passive revenue stream

Today, hospitals and imaging centers use artificial intelligence (AI) in their imaging services to gain higher specificity from their clinical data and provide oversight in specific imaging areas. In the coming years, more organizations will continue to deploy new AI in imaging services. AI for medical imaging intersects several major healthcare market trends: a projected shortage of qualified radiologists, demand for increasingly complex care in an aging demographic; providers' need for personalized care plans and quality outcomes; and the race to precision medicine.

One of the many barriers to AI adoption is access to data for validation and scrutiny around data use — to ensure confidentiality and privacy, primarily if data is used beyond the diagnostic reporting function. These concerns raise questions about cost and time when evaluating AI for your institution before full adoption.

NTT DATA has answers

We can help you recognize that your imaging data is an asset. With NTT DATA Advocate AI Services, you gain new returns on your portfolio by automating the evaluation of AI in imaging with your patient population. AI provides insights into your data to help you gain insights into patient care and improve outcomes. Our services create an opportunity for your institution to participate in monetizing its data for both immediate and passive revenue streams.

Twenty years ago, NTT DATA pioneered cloud-based, healthcare-compliant Digital Imaging and Communications in Medicine (DICOM) data management. Building on our experience with DICOM, Advocate AI creates a foundation of services to automate the evaluation of AI techniques that ultimately address clinical interventions and impact treatment options. Our services incorporate natural language processing and computer vision technology into a single online application to drive more value from diagnostic reports and imaging.

We continue to invest in AI and, with other industry pioneers, deliver services that meet healthcare's challenges. Advocate AI positions health systems to prepare for the adoption and integration of AI tools as they apply to imaging services. Our services address all clinical specialties to automate the extraction of features and anonymize reports and imaging with unique patient tokens for furthering research.

NTT DATA Advocate AI Services

Backed by NTT DATA's proven healthcare and life sciences expertise and experience, business intelligence delivery and fully managed services, Advocate AI delivers value through the automation of data curation and design, analytics support from data science consultants and world-class security services.

Incorporating your imaging data into our Advocate AI data cooperative helps your institution get the highest return on investment (ROI) from that data. Our purpose-built platform safely and

efficiently allows you to create large cohorts of automated, anonymized and annotated data sets. For example, you can segment your patients by key findings for population health insights and track how primary care providers respond to your diagnostic reporting. On a grander scale, you can use these cohorts and link the patients with external data sources to evaluate the value of patient care your organization delivers.

We offer two operating models – the Advocate AI algorithm model and the

Advocate AI data broker model. As shown below, these models leverage automated tools to create a database of your anonymized clinical imaging features and a data repository of anonymized imaging data, forming an essential AI platform that will help you reduce the cost of validating algorithms and potentially create revenue from licensed data sets. Advocate AI empowers you to control who has research access to what data sets and what operations can be done on each data set (cohort).

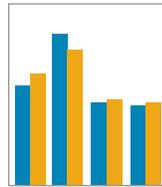
Advocate AI algorithm evaluation model



Secured database of anonymized imaging data sets includes:

- NTT DATA tags study
- NLP of reports
- Passing of customer study algorithm under evaluation
- Matching of AI/NLP to validate algorithms

Customer studies are preprocessed to create disease or project cohorts



Algorithm performance to expectations

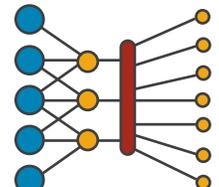


Secured, curated database of study descriptors includes:

- Automated curation
- Positive/negative finding
- Size, location
- Patient profile

Supplying sites participate in a data co-op

Participating sites use data descriptors and feature extraction for clinical quality



Data consumers license data sets to train and evaluate AI or use it in pharma development

Our services deliver tools to develop algorithms or validate third-party algorithms with your patient population. The platform integrates tools with Jupyter workbooks for AI development, collaborative tools for team annotation and libraries for applying known algorithms to curated/anonymized data sets. This means you can evaluate AI performance under various scenarios and compare each outcome to the ground truth of your diagnostic reports.

As each AI vendor develops new versions, or new AI tools become relevant to your clinical practice, Advocate AI helps prepare your practice's baseline and evaluate the impact of AI changes on it. Every practice has its own guidelines for adopting technology and testing clinical software. Advocate AI simplifies

the processes for complex contracting, internal proposals for security review and resources for testing. Our services include controls for data access for each test, automating the integration of AI tools with your data. We provide these services consistently across all imaging and diagnostic reporting services – not just a single practice, like radiology.

Your data has value in advancing the development of AI and decreasing the costs of care through advancements in pharmaceutical development. Advocate AI creates the opportunity to monetize your imaging studies through a unique business model. Our data broker model licenses your data, along with data from other sites, to pharmaceutical and AI developers with your permission. The cooperative transforms your anonymized

data into tailored machine learning data sets at scale. This provides value to licensees for trials and machine learning by replacing previously prohibitive data contracting, data collection, manual custodial and curation tasks. Each time clinical imaging studies are licensed, your institution receives revenue.

As a data broker, NTT DATA acts as a custodian of your data, bringing value-added services, compiling insights from your data to licensees, and exploring clinical inquiries in AI development and pharma exploration. Advocate AI is your service for leveraging the data in your vendor-neutral archive.

Contact our experts at UCA@nttdata.com for more information.

Visit nttdataservices.com to learn more.

NTT DATA Services, a global digital business and IT services leader, is the largest business unit outside Japan of NTT DATA Corporation and part of NTT Group. With our consultative approach, we leverage deep industry expertise and leading-edge technologies powered by AI, automation and cloud to create practical and scalable solutions that contribute to society and help clients worldwide accelerate their digital journeys.

