

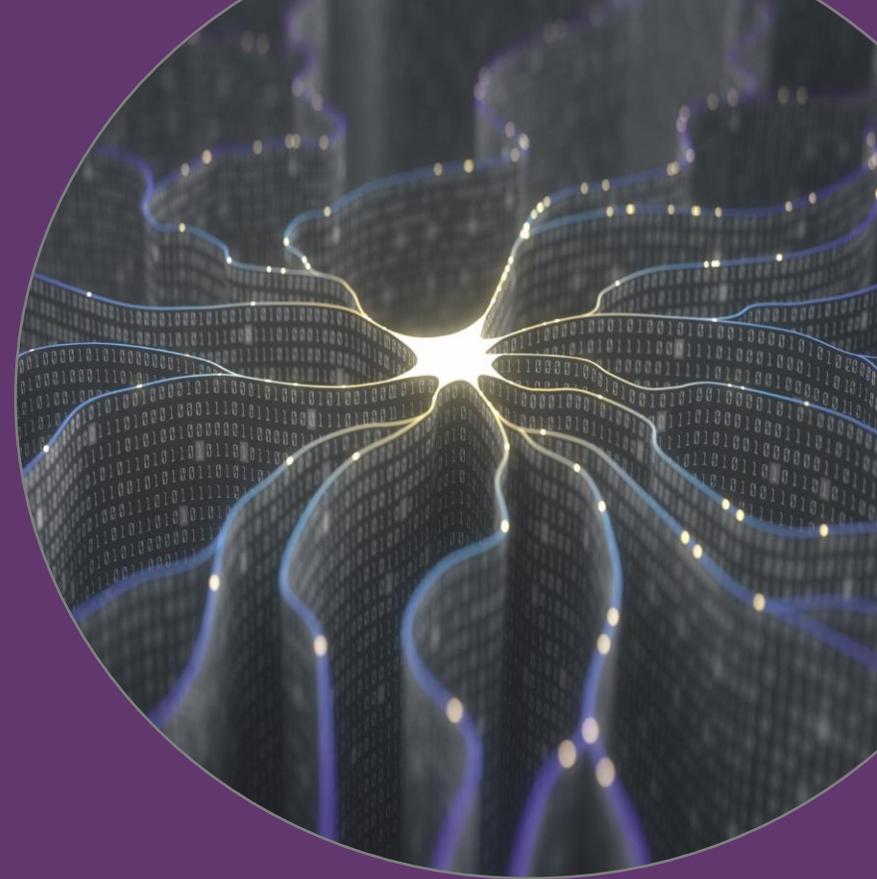
AIDE

A new operating system for the hospital

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AI Transformation Lead
The London AI Centre

@AI4VBH @haris_shuaib



Cross the gulf of innovation

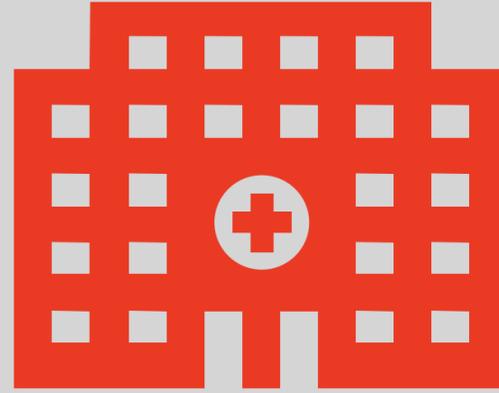


AI

SKILLS

TECHNOLOGY

INVESTMENT



NO PEOPLE

NO POLICY

NO PLATFORMS

NO VALUE

Platform challenges for medical AI



Deployment of more and more AI models becomes an increasingly complex task to manage, creating large technical debt.



Interoperability is a particular challenge for healthcare due to heterogeneity in clinical systems and patient data models.

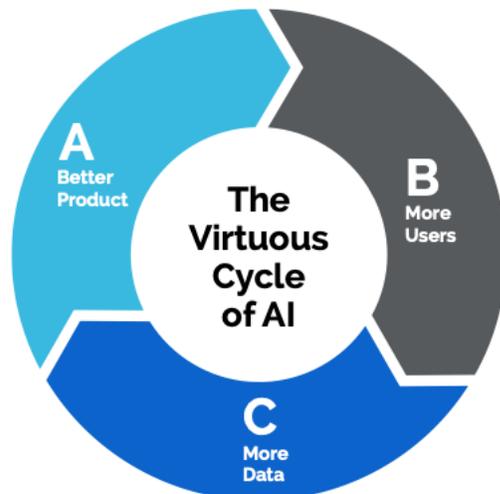
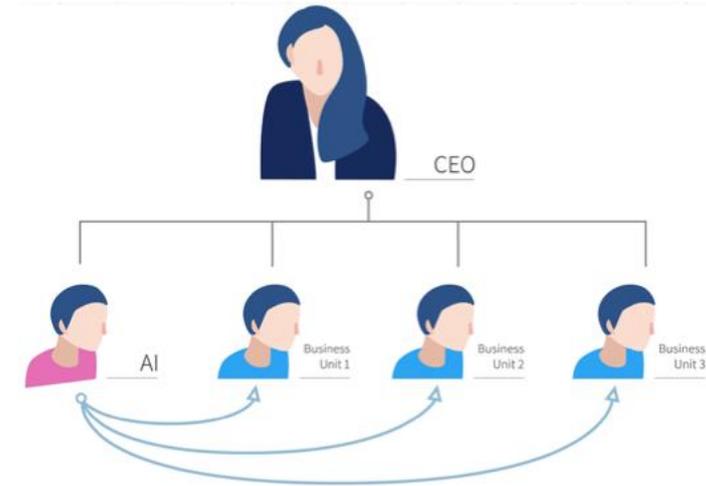


Evidence generation needs to be at the centre of the design, since many deployments of AI still require research and analysis of their performance.

An enterprise approach to AI

Break away from medical specialty silos

Lowering costs around staff and support



Enterprise-wide view

Managing technical risks

Continuous improvement

AIDE

A new OS for the hospital



1895



1995



2012



2021

1. One of the earliest photographic plates from Roentgen's experiments was a film of his wife, Bertha's hand with a ring, produced on Friday, November 8, 1895.
2. Setzner1337, CC0, via Wikimedia Commons

AIDE

A new paradigm for developers



One phone, one app

A platform for innovation

AIDE

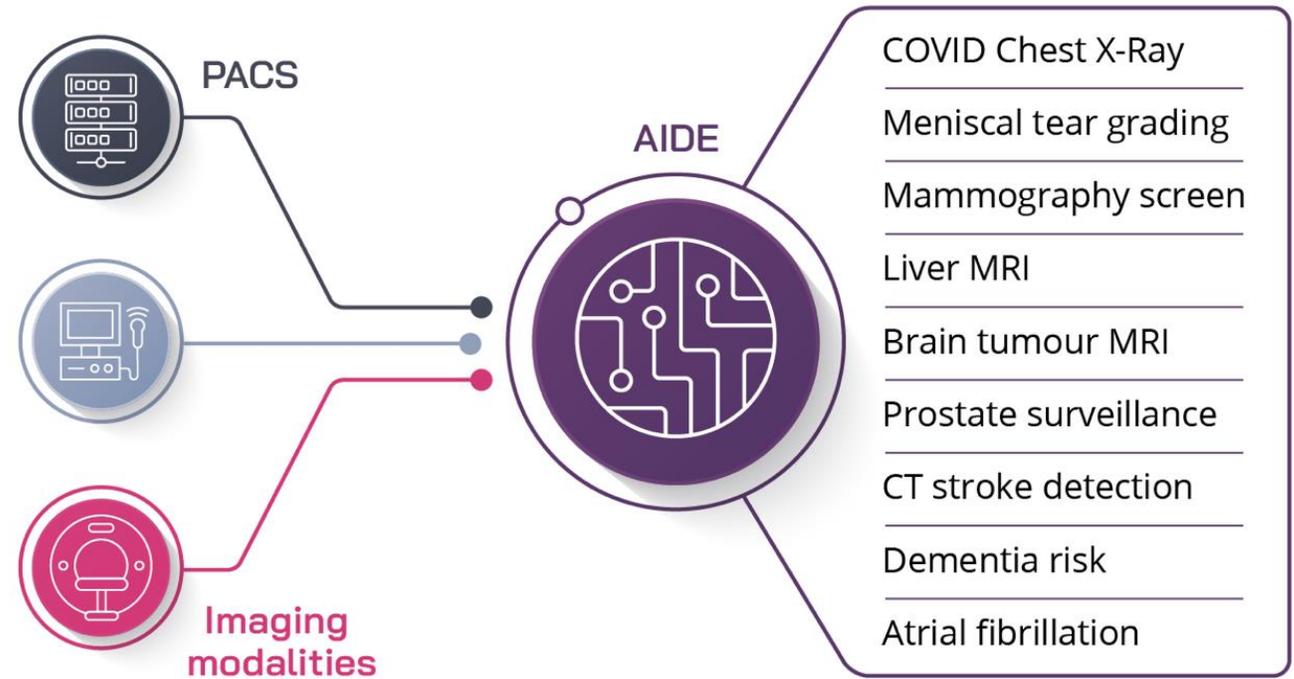
AI Deployment Engine

Integrates with clinical information systems (DICOM, FHIR, HL7)

AIDE App Store to share and distribute AI applications.

Enterprise-wide platform for the management and deployment of AI.

Help manage technical, clinical and regulatory risks around AI deployment.



Demo

The screenshot displays a clinical review interface. At the top left is the logo for 'AI CENTRE for Value Based Healthcare'. The main header area contains patient information: 'Patient Name: Anonymous Female 1956', 'DoB: 26/03/1956', 'PatientID: ANON7PIQEE1QE', 'Sex: F', and 'Study Date: 30/10/2019'. To the right of this information are buttons for 'OPEN PIPELINE', 'ACCEPT', and 'REJECT'. Below the header is a 'Work List' sidebar with a search box and three task entries. The main area features a large axial CT scan image of a head, with a 'HIDE SERIES' button and a 'DOWNLOAD STUDY' button above it. To the right of the image is a 'HIDE METADATA' panel listing various DICOM metadata fields. A purple callout box is overlaid on the bottom left of the image.

Model outputs for clinical review

Patient Name: Anonymous Female 1956 DoB: 26/03/1956 PatientID: ANON7PIQEE1QE Sex: F Study Date: 30/10/2019 OPEN PIPELINE ACCEPT REJECT

Work List

Search Tasks

Anonymous Female 1956 reporting - 0.3 Mode: CU Received: 26/10/2021 13:19

Anonymous Female 1956 reporting - 0.3 Mode: CU Received: 26/10/2021 12:47

Anonymous Male 1980 reporting - 0.3 Mode: CU Received: 16/09/2021 18:29

CT (288) 0.625mm

DOC (1) 0.625mm

0.625mm

0.625mm

SLICE: 1

HIDE METADATA

SpecificCharacterSet ISO_IR 100

ImageType ORIGINAL\PRIMARYA...

SOPClassUID 1.2.840.10008.5.1.4.1....

SOPInstanceUID 1.2.276.0.7230010.3.1...

StudyDate 20191030

SeriesDate 20140904

AcquisitionDate 20140904

StudyTime 060329

Modality CT

InstitutionName KCH Clinical Research ...

ReferringPhysician...

AIDE is a hardware & software solution facilitating the deployment, integration & management of AI algorithms in the clinical workflow

Managing the clinical risk

Clinical review

Earlier feedback to developers

Closing the feedback loop

The screenshot displays a web-based interface for reviewing AI model outputs. At the top, the header reads "Model outputs for clinical review" and includes a logo for "AI CENTRE for Health Services Healthcare". Below the header, patient information is displayed: "Patient Name: Anonymous Female 1956", "DoB: 26/03/1956", "PatientID: ANON7PIQEE1QE", "Sex: F", and "Study Date: 30/10/2019". Action buttons for "OPEN PIPELINE", "ACCEPT", and "REJECT" are visible. A "Work List" sidebar on the left contains a search bar and a list of tasks for "Anonymous Female 1956" and "Anonymous Male 1980". The main area shows a large axial CT scan slice with a "HIDE SERIES" sidebar on the left listing "CT (288)", "DOC (1)", and "DOC (1)" series. A "DOWNLOAD STUDY" button is located at the top right of the main area. On the far right, a "HIDE METADATA" sidebar lists technical details such as "SpecificCharacterSet ISO_IR 100", "ImageType ORIGINALPRIMARYVA...", "SOPClassUID 1.2.840.10008.5.1.4.1...", "SOPInstanceUID 1.2.276.0.7230010.3.1...", "StudyDate 20191030", "SeriesDate 20140904", "AcquisitionDate 20140904", "StudyTime 060329", "Modality CT", "InstitutionName KCH Clinical Research...", and "ReferringPhysician...".

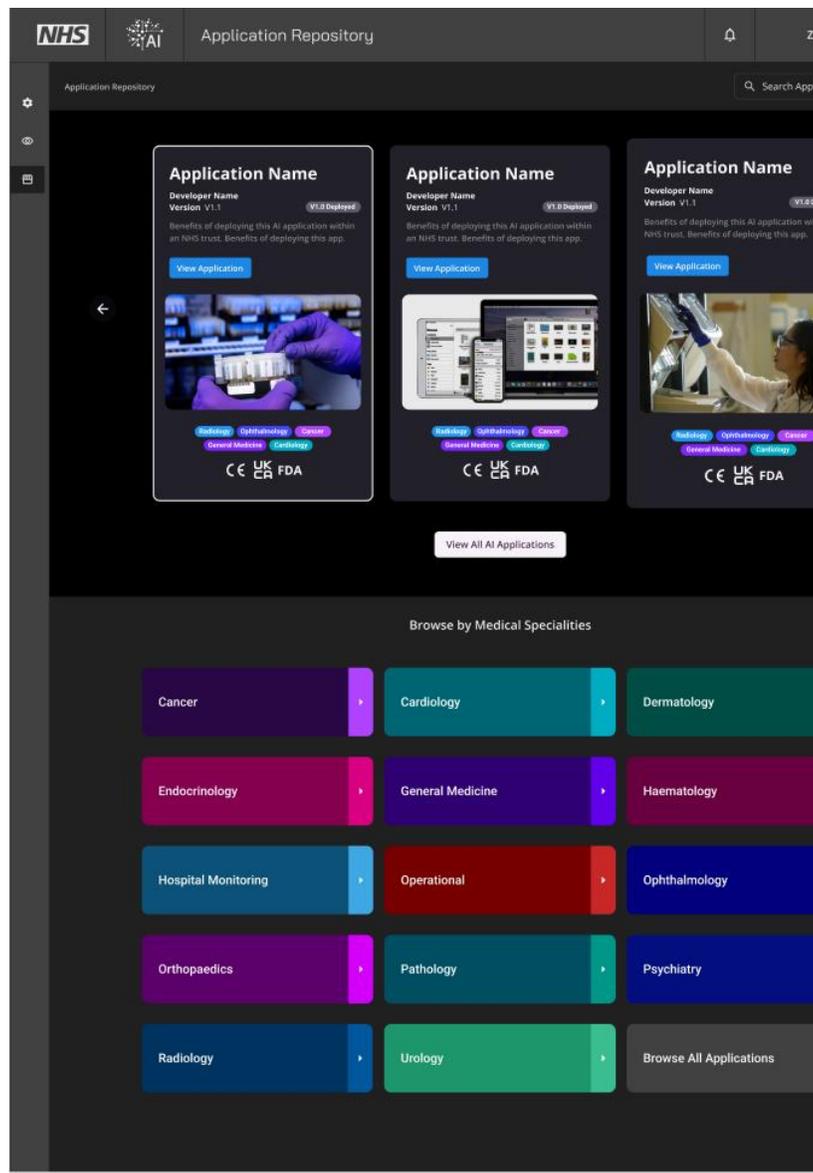
Scaling up digital clinical trials

Deploying in shadow mode

QA & research mode

Centralised reporting

App store with associated documentation

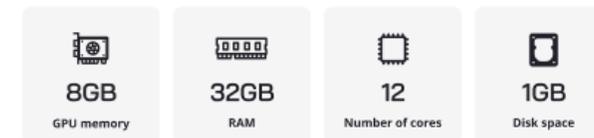


Trust Availability

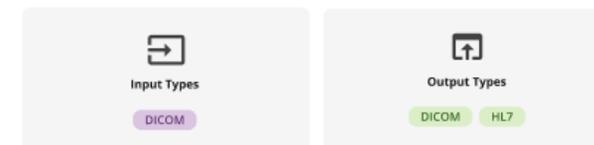
✓ This application is available to all trusts .

System Requirements

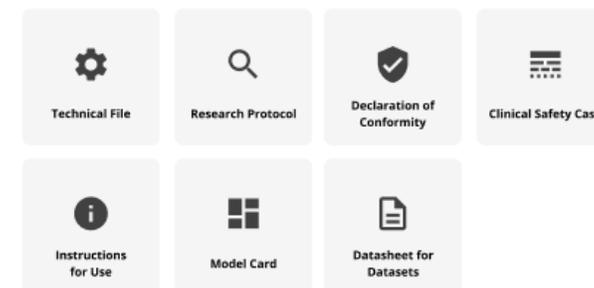
Blaciustrum asit, ut ulpa perrum inum di dolorib eatur? Em harunt exceper licaborpore nonsecus, sum voluptam elique dolupta digendemos es as.



Input and Output Types



Files



The rollout across London and the Southeast of England

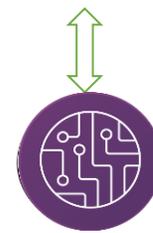
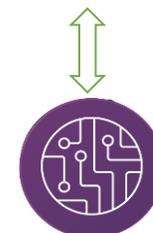
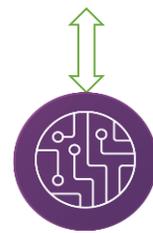
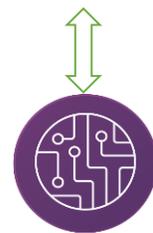
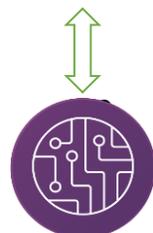
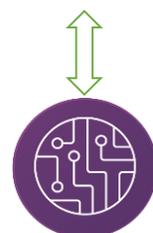
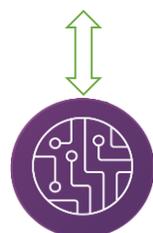
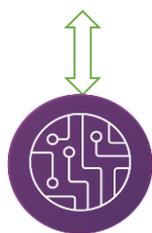
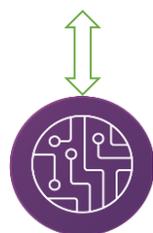
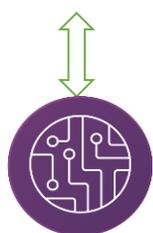
AI lifecycle management

Cloud-ready architecture

NHS "FUBU" repository

Package algorithms with compliance documents

Complex and composable pipelines



NHS
Imperial College Healthcare
NHS Trust

NHS
South London
and Maudsley
NHS Foundation Trust

NHS
Brighton and Sussex
University Hospitals
NHS Trust

NHS
King's College Hospital
NHS Foundation Trust

NHS
University College
London Hospitals
NHS Foundation Trust

NHS
Guy's and St Thomas'
NHS Foundation Trust

NHS
Lewisham and Greenwich
NHS Trust

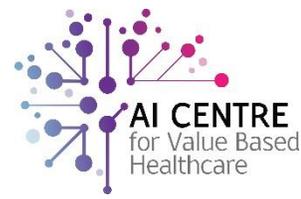
NHS
Royal Brompton
& Harefield
NHS Foundation Trust

NHS
Barts Health
NHS Trust

NHS
East Kent
Hospitals University
NHS Foundation Trust

Join us

Developers



We have a pipeline of 20+ AI applications to be deployed

If you are interested in joining the community: use QR code



AIDE

A new operating system
for the hospital



Haris Shuaib

AI Transformation Lead
The London AI Centre

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