Medical Imaging and Data Resource Center
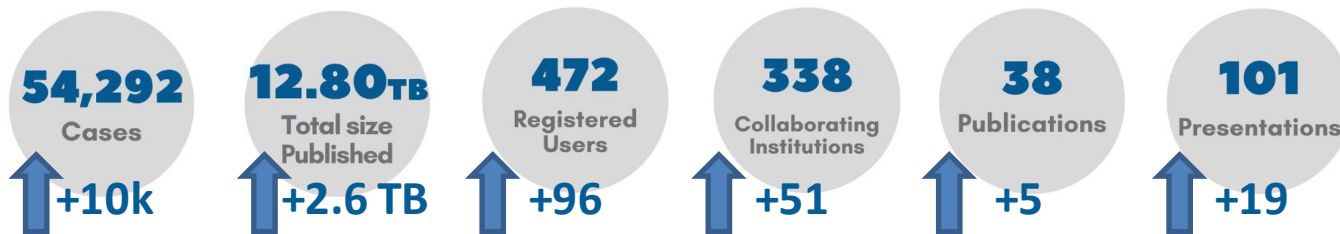
ACCELERATING DATA RELEASE & UTILIIZATION

MIDRC — MEDICAL IMAGING AND DATA RESOURCE CENTER.

Real world assessment of algorithmic performance towards accelerating development and clinical deployment

May 2023 v. January 2023

Total ingested into MIDRC
# of Imaging Studies
309,270
(+157k)

Released by MIDRC
# of Imaging Studies
135,629
(+30.1k)

AI / ML Development
27 (+3) Algorithms
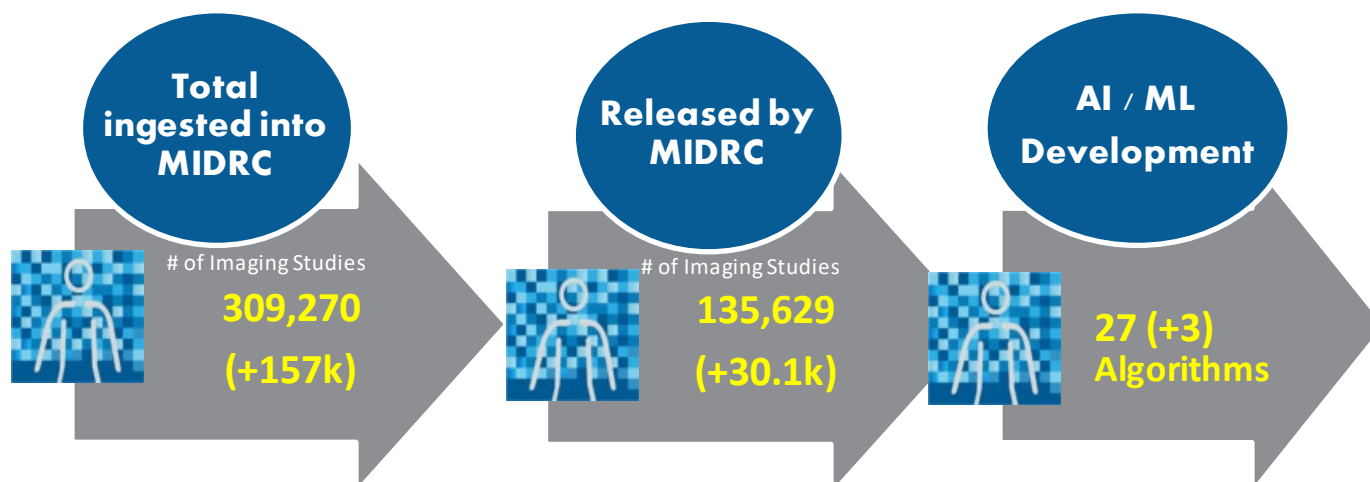
Supporting the NIH Data Sharing Policy with DataCite DOI's

NIH SCIENTIFIC DATA SHARING — DataCite

Enabling the path to product with the Validation and Regulatory Working Group (VRWG)

MIDRC — MEDICAL IMAGING AND DATA RESOURCE CENTER. — FDA

54,292 Cases
+10k

12.80 TB Total size Published
+2.6 TB

472 Registered Users
+96

338 Collaborating Institutions
+51

38 Publications
+5

101 Presentations
+19

NIH — National Institute of Biomedical Imaging and Bioengineering

https://www.midrc.org

https://www.data.midrc.org

Medical Imaging and Data Resource Center

ADDRESSING BIAS AND DIVERSITY IN AI DATASETS

MIDRC
MEDICAL IMAGING AND DATA RESOURCE CENTER.

Drukker, et al. (2023) "Towards **fairness** in artificial intelligence for medical image analysis; **Identification and mitigation of potential biases** in the roadmap from data collection to model deployment" JMI 2023

https://doi.org/10.1117/1.jmi.10.6.061104

Whitney, et al. (2023) "Longitudinal **assessment of demographic representativeness** in the Medical Imaging Data and Resource Center Open Data Commons" JMI, *under review*.
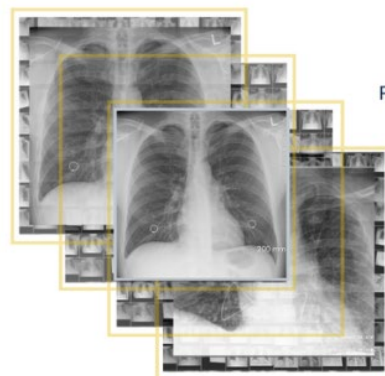
https://arxiv.org/abs/2303.10501
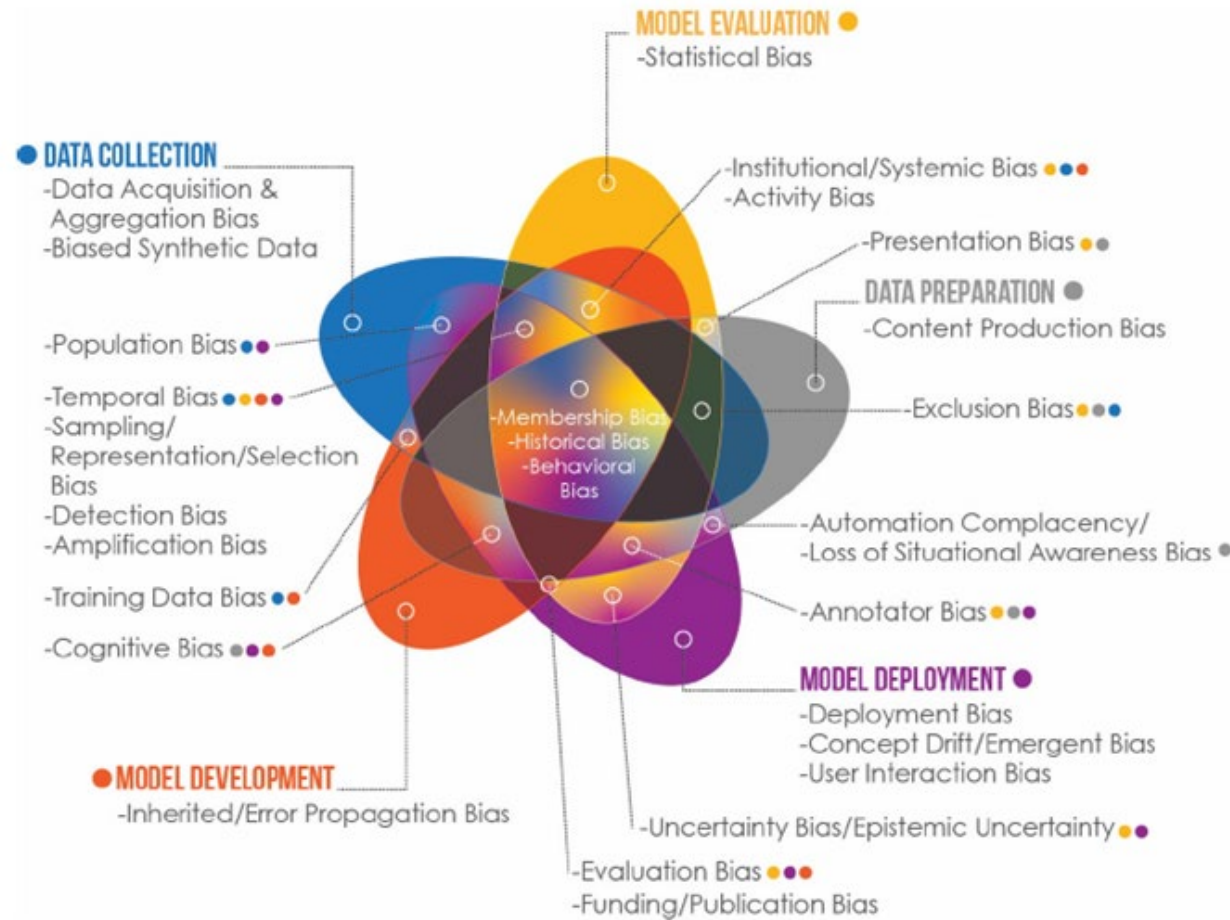
MIDRC AI/ML Bias Awareness Tool Portal

https://www.midrc.org/bias-awareness-tool-1

MIDRC

MEDICAL IMAGING AND DATA RESOURCE CENTER.

MIDRC mRALE Mastermind Challenge:

AI to predict COVID severity on chest radiographs

PRIZE
Receive MIDRC support through the FDA regulatory process using the MIDRC Sequestered Data Commons
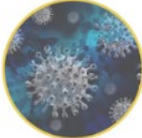*First of its kind!*

RECOGNITION
Recognition at both AAPM 2023 and RSNA 2023
MIDRC acknowledgment
MIDRC publication contributor credit

LOGISTICS
Details and Registration can be found on the Challenge platform

DATES
Registration & training phase open May 15, 2023
Validation phase begins June 10, 2023
Challenge concludes July 10, 2023

Registration opens May 15!

MIDRC mRALE Mastermind Challenge Information

1st Place	$15,000
2nd Place	$8,000
3rd Place	$7,000
4th – 7th Place	$5,000

mRALE: modified Radiographic Assessment of Lung Edema

https://midrc-medici.southcentralus.cloudapp.azure.com/competitions/9

National Institute of Biomedical Imaging and Bioengineering

https://www.midrc.org

https://www.data.midrc.org