

AI-LAB

ACR[®]
AMERICAN COLLEGE OF
RADIOLOGY
QUALITY IS OUR IMAGE



DATA SCIENCE
INSTITUTE™
AMERICAN COLLEGE OF RADIOLOGY



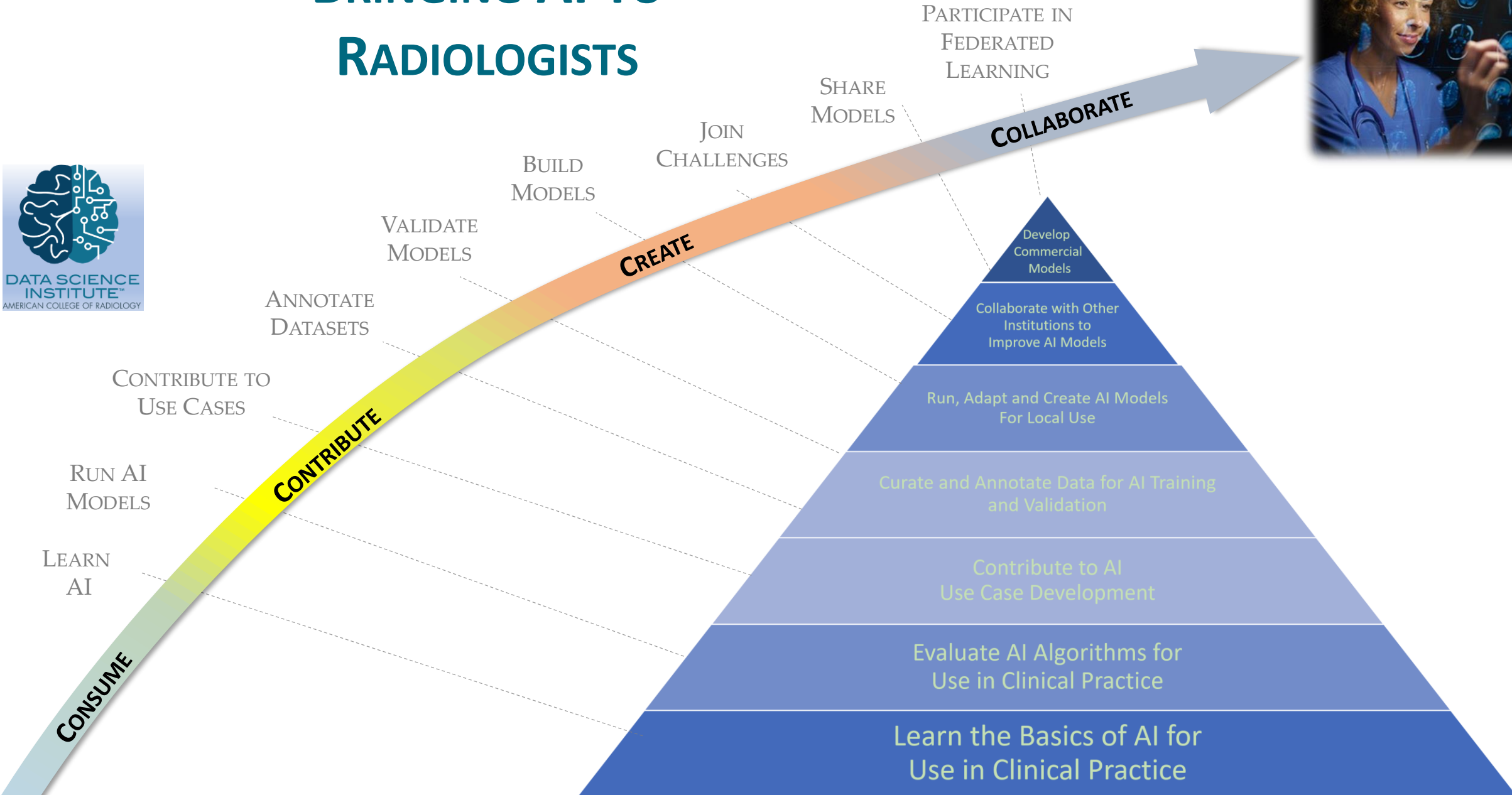
DEMOCRATIZING AI

SIIM-ACR DATA SCIENCE SUMMIT
JUNE 2020

MIKE TILKIN

AMERICAN COLLEGE OF RADIOLOGY
CHIEF INFORMATION OFFICER AND EVP TECHNOLOGY

BRINGING AI TO RADIOLOGISTS



CONSUME

CONTRIBUTE

CREATE

COLLABORATE

LEARN AI

RUN AI MODELS

CONTRIBUTE TO USE CASES

ANNOTATE DATASETS

VALIDATE MODELS

BUILD MODELS

JOIN CHALLENGES

SHARE MODELS

PARTICIPATE IN FEDERATED LEARNING

Learn the Basics of AI for Use in Clinical Practice

Evaluate AI Algorithms for Use in Clinical Practice

Contribute to AI Use Case Development

Curate and Annotate Data for AI Training and Validation

Run, Adapt and Create AI Models For Local Use

Collaborate with Other Institutions to Improve AI Models

Develop Commercial Models

AI-LAB



- EDUCATIONAL LESSONS ON DATA SCIENCE, AI AND ITS USE IN HEALTHCARE
- ACCESS TO PUBLICLY AVAILABLE DATASETS, ANNOTATIONS AND MODELS
- ABILITY TO COLLABORATE WITH THE BROADER AI COMMUNITY
- EXPERIMENTATION WITH AI MODELS ON ANONYMIZED, CLOUD-BASED IMAGES

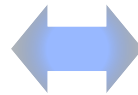
AI-LAB WITH LOCAL CONNECTIVITY



- EDUCATIONAL LESSONS ON DATA SCIENCE, AI AND ITS USE IN HEALTHCARE
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- **ALONE PROVIDES NO INTEGRATION INTO LOCAL HOSPITAL SYSTEMS**



HOSPITAL INFORMATION SYSTEMS



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- INTEGRATION WITH LOCAL PACS SYSTEM FOR THE CREATION OF AI MODELS FROM LOCAL DATA
- INTEGRATION WITH LOCAL AI MARKETPLACES FOR THE EVALUATION OF AI MODELS
- INVESTIGATIONAL USE OF AI MODELS IN PREPARATION FOR REGULATORY APPROVAL
- TOOLS FOR THE EVALUATION AND CREATION OF AI THAT SUPPORT THE PATHWAY TOWARD US REGULATORY COMPLIANCE

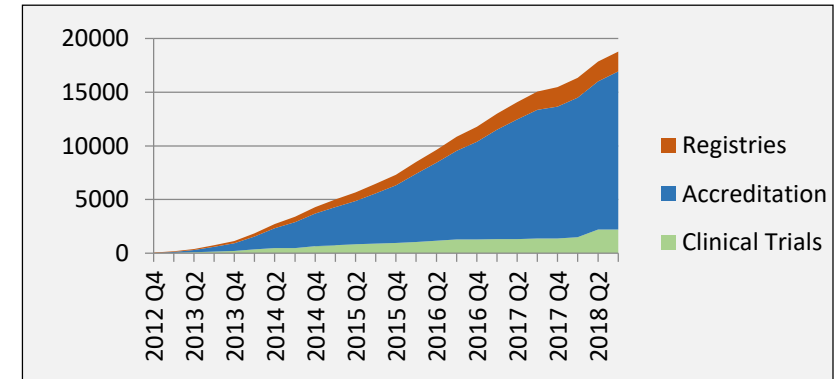
HOSPITAL INFORMATION SYSTEMS



ACRCONNECT – NEXT GENERATION OF TRIAD

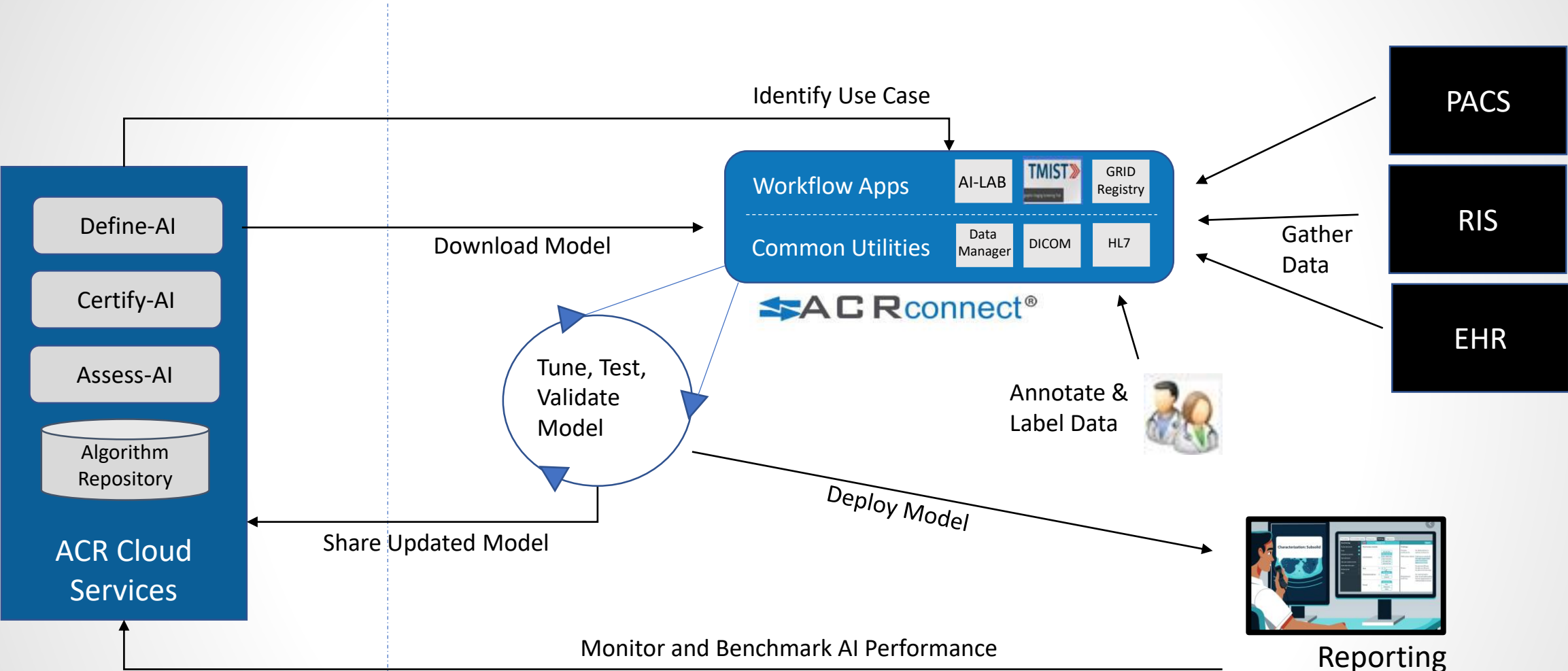


- TRIAD (Transfer of Images and Data) – Data Exchange Platform developed to support image and data sharing between imaging centers and the ACR
- Standards-friendly and CFR 21 Part 11 Compliant
- Supports a Broad Portfolio
 - Research: Standard for NCI National Clinical Trials Network
 - Accreditation: All submissions received through TRIAD
 - Registries: Multiple channels (e.g. DICOM, HL7) and advanced local validation and de-identification of image sets



- Expand local processing capabilities and minimize the need to move data offsite
- Container-based, cloud-native solution designed to run cross-platform and facilitate re-use
- API-based, standards-friendly platform promoting integration, collaboration, customization
- Supports AI-Lab and other initiatives in an extensible “app model”

ACRCONNECT AND AI-LAB COMBINE TO BUILD AI ON PREMISES



ACR Cloud

Local Healthcare Facility



ACR AI-LAB™

ENTER



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