

2023 Medical Image De-Identification Workshop

The Center for Biomedical Informatics and Information Technology of the National Cancer Institute (NCI) presented a virtual Medical Imaging De-Identification (MIDI) workshop focused on public sharing of imaging data.

The primary emphasis of the workshop was on medical images with accompanying data elements, especially those in formats in which the data elements are embedded, particularly DICOM.

The goals of the two-day workshop were to:

- Share best practices and recommendations for medical imaging de-identification, as identified by the MIDI Task Group convened by the NCI.
- Learn about approaches to conventional image de-identification in the United States, the European Union, and Canada.
- Discuss approaches to image de-identification by industry.
- Explore the roles of statistical risk analysis, de-facing, and AI in de-identification.

Recordings

Date	Slides	Recording
5/22/2023	Day 1 Slides	Day 1 Recording
5/23/2023	Day 2 Slides	Day 2 Recording

Slide Presentations

The workshop agenda and speaker bios are on the [workshop website](#).

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Speaker	Presentation Title	Slides
Day 1		
Keyvan Farahani, PhD, National Heart, Lung, and Blood Institute, National Institutes of Health	Welcome & Introduction	Farahani Welcome Slides
Session 1: Report of the MIDI Task Group - Best Practices and Recommendations		
David Clunie, MBBS, PixelMed	Report of the MIDI Task Group	Clunie Slides
Session 2: Tools for Conventional Approaches to De-Identification Chairperson, Fred Prior, PhD		
Fred Prior, PhD	Setting the Stage	Prior Session 2 Slides
Michael Rutherford, MS, University of Arkansas for Medical Sciences	The Tools of TCIA: Standardizing Zero-Tolerance De-identification	Rutherford Slides
Stephen Moore, MS, Washington University School of Medicine in St. Louis	XNAT Platform: Image De-identification	Moore Slides
Session 3: International Approaches to De-Identification Chairperson: William Parker, University of British Columbia		
William Parker, MD	Medical Data De-ID - A Canadian Perspective	Parker Slides
Haridimos Kondylakis, PhD, Institute of Computer Science, Foundation of Research & Technology (FORTH)	Data Infrastructures for AI in Medical Imaging: A report on the experiences of five EU projects	Kondylakis Slides
Christian Ludwigs, MSc, Aigora GmbH	Legal framework and best practices for medical image de-identification in the EU	Ludwigs Slides
Session 4: Industry Panel on Image De-Identification Chairperson: Juergen Klenk, PhD, Deloitte Consulting		

Juergen Klenk, PhD	Introductory Remarks to the Industry Panel	Klenk Slide
Bob Lou, MD, Google	Medical imaging de-identification on both images and text using AI models	Lou Slides
Lawrence (Tony) O'Sullivan, MS, IBIS	Optimizing and Automating Radiology Data De-identification Workflows	O'Sullivan Slides
Dan Marcus, PhD, Flywheel	The Flywheel Platform for Intelligent Image Anonymization	Marcus Slides
Jiri Dobes, PhD, John Snow Labs	Automated Medical Data De-Identification and Obfuscation	Dobes Slides
Abraham Gutman, MS, AG Mednet, Inc.	Advances in Medical Imaging De-Identification and the Impact of Regulatory Constraints	Abraham Gutman Slides
Day 2		
Session 5: Pathology Whole Slide Image De-Identification		
Adam Taylor, PhD, Sage Bionetworks	Pathology Whole Slide Image De-Identification	Taylor Slides
Tom Bisson, PhD, Charité Universitätsmedizin Berlin	Anonymization of Whole Slide Images in Histopathology for Research and Education	Bisson Slides
David Gutman, MD, PhD, Emory University	Image DePHI and the DSA: Open Source tools for Histology Image Deidentification	Gutman Slides
Session 6: De-Facing	De-Facing	
Ying Xiao, PhD, Hospital of the University of Pennsylvania	Medical Image De-Facing and Clinical Research Data Sharing	Xiao Slides
Christopher Schwarz, PhD, Mayo Clinic	Face Recognition and De-Identification of Research Brain Images with mri_reface	Schwarz Slides
Douglas Greve, PhD, MGH/Harvard	MIDEFACE: Minimally Invasive Defacing	Greve Slides
Session 7: The Role of AI in Image De-Identification		
Judy Gichoya, MD, Emory University		Gichoya Slides
George Shih, MD, Weill Cornell Medical College	Pixel De-Identification Using AI	Shih Slides
Adrienne Kline, MD, PhD, Northwestern University	PyLogik: An open-source resource for medical image de-identification	Kline Slides
Session 8: NCI MIDI Datasets and Pipeline		
Keyvan Farahani, PhD	The Medical Image De-Identification Initiative (MIDI)	Farahani Session 8 Slides
Fred Prior, PhD	Synthetic Data for De-Identification Testing - The MIDI Datasets	Prior Session 8 Slides
Ben Kopchick, PhD, Deloitte Consulting	Building a cloud-based MIDI pipeline	Kopchick Slides