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Altri autori (Persone)	ColantonioSara TsakouGianna YangGuang
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Nota di contenuto	Section 1. Overall Considerations -- 1. Generating the FUTURE AI. describing the process for reaching consensus on the FUTURE-AI recommendations and how these contribute/relate to trustworthy AI (make some kind of correspondence to the trustworthy AI principles of the EC and others) Martijn Starmans, Richard Osuala, Oliver Díaz, Karim Lekadir, and contributors -- 2. The Clinical Viewpoint / Considerations for Clinical Impact of AI in Oncologic Imaging Luis Marti-Bonmati (clinical Ai4HI WG), and contributors from all AI4HI -- 3. Socio-ethical and legal implications of Trustworthy AI – the AI4HI ELSI Mónica Cano Abadía(BBMRI-ERIC, EuCanImage), Ricard Martínez (Primage and

Chaimeleon) and Mario Aznar +ProCancerI legal colleague , and provisionally Magda Kogut (INCISIVE) -- Section 2. Preparing for trustworthy AI: The Data and Metadata for quality, transparency and traceability -- 4. Data harmonization and challenges towards generation of repositories: sharing practices and approaches- (Include Data de-identification / Include Data annotation and segmentation / compare commonalities and differences in the projects/ Data quality) Leonor Cerdá (Primage), Oliver Diaz(EUCANIMAGE), Guang Yang (Imperial, Chaimeleon), Ana Jimenez -Quibim /UNS/ Alexandra Kosvyra [AUTH] , Ch Kondylakis FORTH, provisionally co-authors from CERTH -- 5. Standardising Data and Metadata (this will include Data models/AI metadata / AI Passport /Transparency of Data, Models, and Decisions) Ch Kondylakis (FORTH), S Colantonio--(CNR) Gianna Tsakou (MAG) + Alexandra Kosvyra [AUTH] + provisionally inputs from (Ticsalud/ED/ Medexprim/) Pedro Mallol (Chaimeleon) -- 6. Generative synthetic data in Cancer Research Yang (Imperial College)/ Leonor Cerdá, Richard Osuala , provisionally Karim Lekadir / Adrián Galiana (Primage) -- Section 3. Implementing trustworthy AI: The Algorithms and DSS -- 7. Architectures and platforms for trustworthy AI: cloud technologies and federated approaches (this includes The privacy preserving methods / challenges with federated learning , Cloud technologies for supporting centralized trustworthy AI training) Alberto Gutierrez (BSC) and Chrysostomos Symvoulidis (INCISIVE)/ Martijn Pieter Anton Starmans EUCANIMAGE / Ignacio Blanquer (CHAIMELEON) -- 8. AI robustness, generalizability and explainability Sara Colantonio, Alberto Gutierrez-Torre [BSC], And inputs from Nikos Papanikolaou. Ysroel Mirsky (Israel, Chaimeleon), Henry Woodruff (Maastricht, Chaimeleon), D Dominguez Herrera (Ticsalud) / D Fotopoulos (AUTH) / Manikis/KMaria (FORTH) -- 9. AI Models in cancer diagnosis and prognosis Leonor Cerdá (Chaimeleon), D Filos and I Chouvarda (AUTH), Turukalo, Tatjana (UNS) and contributors from all projects (including ICCS fromINCISIVE project) -- Section 4. Validating trustworthy AI: The Validation and User perspective -- 10. Doing Technical validation for real. Experiences from a multisite effort Inputs from the AI4HI WG survey work and relation to project work / AUTH and UNS can contribute the INCISIVE prevalidation method and efforts here (Olga Tsavali/Chouvarda – AUTH) and (Tatjana Turukalo and UNS team), with contributors from all projects -- 11. Clinical Validation – (including material from previous AI4HI paper, User perspective/feedback and lessons learnt / experience difficulties from all projects) Luis Bonmati, Katrine Riklund , Shereen Nabhani-Gebara, Lithin Zacharias, Maciej Bobowicz, -- 12. Real-life deployment of AI services: practical implications (focusing on real-life deployment of AI services: practical implications, patents, fast-track for clinical usefulness, Towards certification) (Ana Blanco, Ana Jimenez, Fuensanta Bellvis , Quibim) + legal partners from all teams on AI related requirements.

Sommario/riassunto

The book covers multiple aspects and challenges, from legal to technical and validation, in the emerging topic of AI in cancer imaging, bringing together the experience of top researchers and flagship projects. The aim of this book is to address the important questions: "How to design AI that is trustworthy", and "How to validate AI trustworthiness" in the scope of AI for cancer imaging research. The book discusses overall considerations and the generation of a framework; preparing for trustworthy AI, including the data and metadata for quality, transparency and traceability; implementing trustworthy AI with algorithms and Decision Support Systems; and validating trustworthy AI. This is an ideal resource for researchers from technical and clinical research sites, postgraduate students, and

healthcare professionals in cancer imaging and beyond.
