

Phase 2 – Interview Script

Ethicist

Introduction and Background

- Could you start by sharing some background on your work related to ethics in AI? Have you touched upon projects specifically related to AI in healthcare?

Ethical Barriers

- (ethical challenges in adoption) What do you see as the main ethical challenges in the current AI adoption in healthcare system?
- (bias) Bias in AI is a common ethical concern. What strategies do you think are most effective for addressing bias in healthcare AI systems?
- (accountability) How do you think accountability should be distributed among AI developers, clinicians, and institutions?

Explainable AI

- (XAI) Have you heard about the term explainable AI? What does it mean to you as someone who works in critical theories?
- (Human centered AI, ethical AI) what about terms like human centered AI, ethical AI?

Trust

- (trust definition) How do you define trust in the context of AI systems in healthcare?
- (trust in AI and ethics) To implement AI in healthcare, there's a huge lack of trust from the doctor side, hence this project is called designing trust. Do you think building trust amongst different stakeholders can contribute to building ethical AI?
- (transparent AI) Do you think striving for transparency, interpretability can help contribute to building ethical AI?

Ethical Framework and Guideline

- (ethical guidelines) What ethical guidelines do you think are essential for AI systems in radiology? How can these be integrated into the early stage of the design and development process?

Map Interdisciplinary Insights

- (current practice) are there other people involved in your current research? Who are they? How do you collaborate together?
- (Interdisciplinary collaboration) except for those who you are already involved, who else do you think should be involved? Designers? Ethicists? Regulatory? Law practitioners?

(power dynamics in participatory research) For participatory research, where people are involved, how do you think of the issues related to power in participatory research?

- (ethicists role) how do your role in the larger system?
- (leverage point) in terms of intervention, amongst all the stakeholders, who should be the most important stakeholders that we interfere with to try to achieve ethical AI?
- (visions about AI in healthcare) To put on a utopian lens on, how will the system improve in 5-10 years?
- (worst case scenario) in the worst-case scenario, what will happen? Or maybe now it's already the worst?

Designer in XAI

Introduction and background

- Could you share your experience designing with XAI? Any project related to healthcare?

Designing XAI

- (definition of XAI) How do you define XAI? What does it mean to you as a designer?
- (Criteria of good XAI) In your view, what criteria make an XAI project effective or impactful? Are there specific standards or qualities you look for?
- (Challenges in designing) In the vast amount of XAI work you've seen, what are the common challenges designers face? Are there recurring obstacles or issues?
- (strategies for visualization) AI (and XAI) often deals with complex, technical concepts. How do you approach making these concepts accessible without oversimplifying them? Do you have specific strategies for visual representations in AI/XAI?

Trust in XAI

- (trust) Since our project is focused on trust in XAI, I'd love to hear your thoughts. What do you think makes an AI trustworthy? How does design play a role in building that trust?

Map Interdisciplinary Insights

- (designers' role in the system) How do you see the designer's role within the larger XAI system? In your experience, what are the main barriers for designers working in this space?
- (Challenges with technical people) Have you encountered any challenges when collaborating with more technical colleagues on XAI projects? Any strategies or contexts you can share?
- What guidelines do you believe designers should follow to make XAI tools trustworthy and user-friendly?
- (Visions about XAI) Looking ahead, what excites you about the future of design in XAI? Are there emerging trends, tools, or strategies that stand out to you?

Annotator

Introduction and Background:

- (day in a life) Can you describe your typical day as a radiologist? How do human interactions, such as working with neurologists or patients, shape your workflow?
- (specific scenario) When it comes to reading scans, what tools or techniques do you currently rely on?

MS

- (MS related workflow - diagnosis) For MS, how do you diagnose, can you walk me through it?
- (MS related workflow - prognosis) and for following up an MS patient, what will happen?
- (junior and senior radiologists) in the above scenarios, what if someone is not so sure about the read?

Clinical Barriers of AI Adoption

- (current AI tools) Are there AI tools you've come across in your work? What do you think of them?
- (challenges in clinical workflow) What do you see as the main challenges in integrating AI tools into your daily clinical workflow?
- (MS) Are there any specific barriers when using AI for diagnosing or monitoring conditions like MS?
-

Trust

- (trust in radiology) In your experience, what makes an AI system trustworthy in clinical radiology?
- (trust and distrust) Have you ever worked with an AI tool that you trusted (or didn't trust)? What influenced your perception?
- (define trust) What does "trust" mean to you in the context of working with AI? Is it about reliability, accuracy, transparency, or something else?

Requirements for Trustworthy AI

- (ideal AI) If you could design the perfect AI tool for your work, what would it look like? How would it improve your workflow and decision-making?
- (XAI features) What features (e.g., explanations, visualizations, real-time feedback) would make an AI tool most useful to you?
- (visions) How do you see AI impacting the field of radiology in the next 5–10 years?
- Do you think your role as a radiologist will change with the increasing adoption of AI? If so, how?

Designer in AI

Designing XAI

- (definition of XAI) In your previous research, have you encountered the concept of explainable AI? What do you think of it? What does it mean to you as a designer?
- (definition of contestable) And for contestable AI, how do you define it?
- (translating contestable AI into Practice) And for contestable AI framework, how do you translate it into practice? Value-sensitive design, participatory design, speculative design how does these exciting design fields contribute?
- (Problem defining) Can you share more about how you use speculative design to validate contestable AI framework? And from the problem defining, how do you take it further and translate it into later design of AI? The implementation part

Trust in XAI

- (trust) Since our project is focused on trust, I'd love to hear your thoughts. What do you think makes an AI trustworthy? How does design play a role in building that trust?
- (guidelines for trust) What guidelines do you believe designers should follow to make XAI tools trustworthy? Or what should we be cautious of?
- (responsible and contestable AI and trust) Do you think responsible AI and contestable AI contribute to building trustworthy AI? How does it work?
- (stakeholder engagement) Can you share more about your experiences in engaging different stakeholders? How do you bring them on board first of all? And how do you leverage conflicts?

Map Interdisciplinary Insights

- (designers' role in the system) How do you see the designer's role within the larger AI system? In your experience, what are the main barriers for designers working in this space?
- (Challenges with stakeholder engagement) Have you encountered any challenges when engaging different stakeholders? Any suggestions for leveraging conflicts?
- (Visions about designing AI) Looking ahead, what excites you about the future of design in AI? Are there emerging trends, tools, or strategies that stand out to you?

Engineer

Introduction and background

- (related work) Maybe we can start by simply sharing a little bit about your work related to interpretability in radiology?
- (Process) Can you take us through the process of developing that work? Starting from the training data? Testing? How do you validate? (concept)

Explainability and Interpretability

- (definition of explainability and Interpretability) How do you define explainability and interpretability in general? in the context of radiology? How are the two concepts different?
- (objective of XAI) What is the objective of interpretability and explainability in AI in radiology? Why is it crucial?

Technical and Integration Barriers

- (Challenges of XAI) What are the main challenges in achieving interpretability/explainability in AI systems used in radiology?
- (interpretation methods) How do you communicate these interpretations to the medical doctors?
- (Perspective of MDs) From a clinical perspective, what are the primary concerns radiologists have regarding the adoption of AI tools?
- (feedback from MDs) Have you received feedback from clinicians about the tools you've developed? How do they respond to it?

Trust in XAI:

- (trust) Since our project is focused on trust in XAI, I'd love to hear your thoughts. What do you think makes an AI trustworthy? How does XAI play a role in building trust?
- (Interpretability, explainability and trust) How do you think interpretability and explainability can contribute to a trustworthy AI system in radiology?

Map Interdisciplinary Insights

- (current interdisciplinary collaboration) Are people from other domains involved in your current work? Who are they? How do you work together? Is there room for improvement?
- (Interdisciplinary collaboration) except for those who you are already involved, who else do you think should be involved? Designers? Ethicists? Regulatory? Law practitioners?
- (engineers' role in the system) How do you see your role within the larger XAI system?
- (Visions about XAI) What advancements do you foresee in the development of interpretable AI models for radiology in the next 5 to 10 years?
- How do you envision the role of interpretability evolving as AI becomes more integrated into clinical radiology practice?

Legal Expert

Regulatory Barriers:

- (regulatory challenges) What do you see as the main regulatory challenges for implementing explainable AI (XAI) in radiology?
- (relevant law) Are there any specific gaps in existing laws, such as GDPR or Swiss equivalents, that make adopting AI more difficult in healthcare?
- (accountability and liability) Who should bear legal responsibility when AI systems in radiology make errors—developers, radiologists, or healthcare providers?
- How can legal frameworks evolve to address shared accountability between humans and machines?
- (ethical and legal overlaps) How do legal frameworks intersect with ethical concerns like bias, fairness, and transparency in AI?

Trust in AI Systems:

- (trust in AI from legal perspective) From a legal perspective, what do you think are the most critical factors for making AI systems trustworthy in radiology?
- How do laws currently support or hinder the development of trustworthy AI?
- (Defining Trust through Law) How do you define “trust” in the context of healthcare AI? Is it more about legal compliance, user confidence, or ethical alignment?

Data Privacy and Consent:

- (data privacy) In your opinion, how well do current data privacy laws protect patients whose data is used to train AI models?
- (consent) What should happen if a patient decides to withdraw their consent after their data has already been used?

Guidelines for AI Development:

- (legal and ethical consideration) What legal and ethical considerations should AI developers prioritize when creating tools for radiology?
- (XAI and law) Do you see explainability as a legal requirement for compliance, or is it more of an ethical necessity?

Map Interdisciplinary Insights

- (lawyers’ role) How important do you think interdisciplinary collaboration is between legal professionals, AI developers, and clinicians when creating AI systems?
- (legal perspective) What insights can lawyers bring to the table that other fields might overlook?
- (visions) Looking ahead, in 5 or 15 years how do you think legal frameworks will need to adapt to support the safe and ethical integration of AI into radiology? How do you see the relationship between AI, healthcare, and legal frameworks evolving?