Human Factors & Ethics Canvas (HFEC)

0: PROJECT INFORMATION & RESEARCH SUMMARY	
Date	
Project Name	
Product Owner	
HF & Ethics Coordinator	
HF & Ethics Canvas Version No.	
Research & Innovation Phase	
Summary of Research Completed & Key Sources of Information/Evidence	
Research Ethics Approval & Date	
1: FORMULATING THE PROBLEM & FRAMING QUESTION	
What is the problem that the proposed technology will address?	
Who is it a problem for? Key stakeholders? Who effect (directly and indirectly?)	
Setting & Environment?	
Causes of the problem?	
Ethical codes that apply in this setting?	
Ethics embedded in the problem definition?	.
Ethics & Impact of Problem. Individual Level. Societal level. Ethics of acting/not acting?	

Summary of ethical issues to be addressed.			
Summary of relevant ethics principles and frameworks.			
Ethics & Key KPI			
2: UNDERSTANDING TECHNOLOGY & FIT TO PROBLEM/STAKEHOLDER NEEDS & EXPECTED BENEFITS			
What is the technology? How does the proposed technology address the problem? What part of the problem does it address?			
What is the goal/objective? Intended purpose/function of technology?			
Setting & Environment?			
Direct users of technology? Goals? Needs? Expected Benefits?			
Other stakeholders impacted by technology? Goals? Needs? Expected Benefits?			
Design Decisions & Safeguards			
3: DEEP DIVE: BENEFITS, OUTCOMES & IMPACT			
Overall benefits and outcomes: key stakeholders? Expected positive impacts?			
Expected Impact for key stakeholders (psycho-social themes). Individual level? Societal Level?	Human role in the system	Human Identity	Lived experience, wellbeing, quality of life
	Social Interaction & Relationships	Activity & Behaviour	Attitudes & Values

What could go wrong? Potential failures? Potential negative impacts? Psychosocial? Environmental?			
Unintended consequences.			
Unknowns			
Design Decisions & Safeguards			
4: DEEP DIVE: PERSONAE & SCENARIOS			
Example Scenario			
Example Personae			
How is it expected to work?	Scenario 1:	Scenario 2:	Scenario 3:
What does success look like? Benefits for whom? Expected positive outcomes and for whom?	Scenario 1:	Scenario 2:	Scenario 3:
What could go wrong? Potential failures? Potential negative impacts?	Scenario 1:	Scenario 2:	Scenario 3:
Unintended consequences.	Scenario 1:	Scenario 2:	Scenario 3:
Unknowns?	Scenario 1:	Scenario 2:	Scenario 3:
Design Decisions & Safeguards	Scenario 1:	Scenario 2:	Scenario 3:
PART 5: DEEP DIVE – DATA ETHICS			
Ethical issues relevant to data collection? What data? Why collecting? Potential for bias in data collection?			

Ethical issues relevant to data, model & algorithms? Potential for harm and risk?					
Ethical issues relevant to data use & predictions (i.e. application of model/algorithms)?					
Ethical issues relevant to data sharing?					
Design Decisions & Safeguards					
PART 6: DEEP DIVE – IMPLEMENTATION					
Implementation approach					
Implementation enablers					
Implementation barriers					
Systems Perspective: Addressing Ethics as part of Implementation.	People	Process	Technology	Culture	Training & Education
Design Decisions & Safeguards					
PART 7: HUMAN FACTORS & ETHICS SUMMARY					
Key stakeholders? Who is this technology designed for?					
What does success look like? Success for whom?					
Human/Societal Vision & Technology Role/Purpose.					
Summary of Key Ethical Issues to be Addressed?					
Ethical Principles Underlying Technology Design					
Design Approach: Balancing Benefits & Harm. How managing ethics issues? How increasing potential positive impacts?					

How preventing risk/harm? How managing potential negative impacts and unintended consequences? How addressing unknowns?	
Data Ethics Summary.	
Implementation Summary	
Ethics & Key KPI	