Responsible AI for Person Empowerment on Health and Wellbeing (RIPE)

Marco Alfano, Markus Helfert, Ida Richardson

1. INTRODUCTION – MOTIVATION:

Problem
- Technological innovations accelerating disruption in healthcare
- Disconnect between present healthcare (disease management) and emerging, holistic, and empowered approach to health and wellbeing

Solution
- Person/Patient Empowerment
  - Comprehension of health info
  - Informed decision
  - Self-management of health/wellbeing

Challenges/Opportunities
- Web as source of health info
  - Overwhelming
  - Too generic
  - Poor quality/updated
- AI prominent in healthcare
  - Virtual assistants
  - Symptoms checking
  - Empowers machines rather than humans

Research Question
How can Responsible AI be used to empower people and help them better comprehend health information/conditions, make informed decisions, and self-manage health and wellbeing?

RIPE Basics
- SFI-Lero platform funding
- Strand allocation
  - Methods (primary)
  - Systems and Context (secondary)
- Application domain
  - Health, Wellbeing and Human Performance

2. MULTISTAKEHOLDER CO-CREATION APPROACH:

RIPE PROCESS MODEL:

Input
- [assessment]
- User Query
- • Complaints
- • Diseases
- • Examinations

Processing
- AI algorithm
- Understands user queries
- Necessities and preferences with health info
- Services tailored, trustworthy, and simple info
- Search engine
- • World wide web
- • Other health repositories
- • Previous user information

Output
- Feedback
- Selected relevant info on:
  - • Complaints
  - • Diseases
  - • Symptoms
  - • How to see a doctor
  - • Treatment
  - • Prevention
  - • Progress
  - • Traffic light scheme (indicating complaint satisfaction)

RIPE IMPLEMENTATION:

http://cohealth.uvl.ie/shape

3. MAIN OUTPUTS/EPE:

- 6 scientific publications (open access)
- 10 EPE activities and 10 presentations at international conferences/events
- 4 focus groups with members of Killarney Older Person’s Council and Naas Mari’s Sad
- 2 interactive events on health and technology for the general public during MIU research weeks 2022 and 2023
- 5 interviews with healthcare professionals
- RIPE use case for Ethical AI Hackathon in EU project on Trustworthy AI
- 2 workshops with HSE students of MSc in Digital Health Transformation
- IVI Webinar on Responsible AI for person empowerment on health/wellbeing
- 2 PPI panels for person-driven integrated health and wellbeing

Next: RIPE II
Use of Advanced Digital Technologies for Integrated Health and Wellbeing of Older People
- Creation of an integrated health and wellbeing model (physical, mental, emotional, social, …)
- Design and development of an intelligent health assistant for the empowerment of older people on integrated health and wellbeing

Selected Publications

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