

Developing a Common Definition and Taxonomy for Digital Health Technologies: A Delphi Survey, Round 1

Thank you for participating in this Delphi study aimed at developing a common definition and taxonomy for digital health technologies (DHTs). This survey is a significant component of the broader effort by the [European Digital Health Technology Assessment \(EDiHTA\) consortium](#) to establish a framework for the assessment of DHTs.

The following questions comprise Round 1 of the survey. Participation involves completing two rounds of online surveys over the forthcoming months. This survey round is designed to gather your feedback on potential components of definition and taxonomy of DHTs and may require at most 20-30 minutes effort per round.

Participation is voluntary. You may decide to withdraw at any stage. If you consent to participate in the second round, you will be asked to provide your email address so that we can send you a personal invitation. Your name will not be used in any reports or publications resulting from the study, unless you explicitly consent to this.

Contact details

If you have a concern about any aspect of this research, please contact Dr. Wija Oortwijn via w.oortwijn@radboudumc.nl or Ms. Annapoorna Prakash via annapoorna.prakash@radboudumc.nl.

Please read the information sheet for further details about the survey. Click [here](#) to access the information sheet.

There are 69 questions in this survey.

Informed Consent

I agree to take part in this study.

I understand that participation in this study is voluntary and that I can withdraw from the study at any time.

I confirm that I have read and understood the [information sheet](#) provided for this study.

I understand that my data will be used in an anonymised format and my name will not be used in any reports or publications resulting from the study, unless I specifically consent to this.

I understand the meaning of the above statements.

I agree with the above mentioned statements.*

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree

If you do not agree with the statements, you cannot participate in the study.

Background

This survey consists of three parts

1. Part I: Personal and Professional Information
2. Part II: Definition of Digital Health Technologies
3. Part III: Taxonomy of Digital Health Technologies

In Part I, we will ask you to provide personal and professional details. Please note that the research team will not have access to your personal information and your responses will be managed anonymously.

Parts II and III will focus on the definition and taxonomy of digital health technologies (DHTs) respectively. You will encounter various statements regarding the importance of specific components in developing a standardized definition and taxonomy for DHTs. Your responses should reflect your personal opinion.

Proceed to Part I of the survey

Only answer this question if the following conditions are met:
Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.)

Please choose **only one** of the following:

- Yes

Part I: Personal and Professional Information

You will be asked personal and professional questions in this section. Please be assured that your responses will remain confidential.

Age group

*Only answer this question if the following conditions are met:
Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.)*

Choose one of the following answers
Please choose **only one** of the following:

- 20 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- > 60
- Prefer not to respond

Gender

Only answer this question if the following conditions are met:
Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers
Please choose **only one** of the following:

- Female
- Male
- Non-binary
- Prefer not to say
- Other

Where is your workplace located?

Only answer this question if the following conditions are met:
Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers
Please choose **only one** of the following:

- Africa
- Asia
- Europe
- Latin America and the Caribbean
- Northern America
- Oceania

Professional expertise *

Only answer this question if the following conditions are met:
Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers
If you choose 'Other:' please also specify your choice in the accompanying text field.
Please choose **only one** of the following:

- Health professional
- Digital health technology developer
- Technology developer
- Health technology assessment expert
- Policy maker
- Payer
- Insurer
- Patient expert
- Other

How many years of overall professional experience do you have? *

Only answer this question if the following conditions are met:
Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers
Please choose **only one** of the following:

- 0-5 years
- 5-10 years
- >10 years

How many years of professional experience do you have in the field of digital health? *

Choose one of the following answers
Please choose **only one** of the following:

- 0-5 years
- 5-10 years
- >10 years

Part II: Definition of Digital Health Technologies

This part of the survey is informed by a scoping review of definitions of digital health technologies (DHTs), and its associated terms such as eHealth, mHealth, telehealth, telemedicine, and artificial intelligence (AI). The terms 'mHealth' and 'telemedicine' appeared most frequently in the literature, with 'mHealth' being the most commonly defined. In contrast, 'artificial intelligence' appeared the least, with broad definitions that were not specific to healthcare.

We conducted a thematic analysis to identify key components—the building blocks—of these definitions. The components identified include purpose, users, and underlying technology. This analysis enabled us to conceptually map 'eHealth,' 'mHealth,' 'telehealth,' and 'telemedicine' within the broader DHT ecosystem. However, due to the lack of healthcare-specific definitions, mapping AI within DHTs was challenging.

In this survey, we will present these components for your evaluation and seek your input on whether AI is part of DHTs. By understanding the importance of each component to be included in a common definition, we aim to develop a consensus-based definition of DHTs. Such a shared definition will allow stakeholders to effectively communicate and assess the potential impact of DHTs.

How important is it to include the purpose of DHTs as a component in a common definition of DHTs?*

According to the literature, DHTs serve a wide range of purposes in healthcare. These include promoting health, preventing diseases, diagnosing diseases and injuries, treating diseases and injuries, and monitoring treatment progress and recovery. Additionally, DHTs are used for training and education of health professionals, consultations between health providers, and community health surveillance.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is it to include the users of DHTs as a component in a common definition of DHTs?*

According to the literature, DHTs are used for two-way interactions between patients and health professionals, between health professionals themselves, exclusively by patients, or between hospital management and administrative staff.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is it to include the underlying technology of DHTs as a component in a common definition of DHTs?*

According to the literature, mobile technologies such as smartphones, wearable devices, tablet computers, Personal Digital Assistants (PDAs), computing platforms, along with tools like social media and virtual reality, are considered underlying technologies that enable the delivery and functionality of DHTs.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you believe that the three components—purpose, users, and underlying technologies—are sufficient for a common definition of DHTs? If there are missing components, please specify them.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers

If you choose 'No, there are other components to be considered' please also specify your choice in the accompanying text field.

Please choose **only one** of the following:

- Yes, these three components are sufficient
- Other

Do you believe that AI is part of DHTs? Please provide a brief explanation for your choice.*

Artificial intelligence is a computer application that artificially imitates human intelligence including cognition, reasoning, decision-making, problem-solving, and visual recognition.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.)

Choose one of the following answers

Please choose **only one** of the following:

- Yes
- No

Make a comment on your choice here:

Which of the following statements do you agree with regarding the role of AI in a common definition of DHTs? Please provide a brief explanation for your choice.*

Please note that if AI is considered a component, the definition of DHTs will explicitly include the purpose of AI, the users of AI, and the specific AI technologies or tools used in facilitating digital health delivery. If AI is considered an underlying technology, it will be mentioned as an example within the broader technological context of DHTs.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No ' at question ' [G04Q15]' (Do you believe that AI is part of DHTs? Please provide a brief explanation for your choice.)

Choose one of the following answers

Please choose **only one** of the following:

- Artificial Intelligence should be considered a component in the common definition of DHTs
- Artificial Intelligence should be considered an example of underlying technology that enables the delivery of DHTs.
- Neither of the above

Make a comment on your choice here:

Would you like to add comments or suggestions about definition of DHTs?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.

Familiarity with Digital Health Technologies

Please note that Part III of this survey will explore questions related to the taxonomy of digital health technologies (DHTs). We will delve into various stages in the life cycle of DHTs along with the different criteria of classifying DHTs, which may involve terminology and concepts that are more technical and domain-specific.

If you feel that you may not be familiar with or comfortable with these specialized terms and concepts, you have the option to skip this section.

How familiar are you with DHTs? *

Familiarity in this context refers to knowledge of key terms or experience in developing, assessing or using digital health technologies beyond those designed for wellness purposes, such as step trackers and calorie counters

Only answer this question if the following conditions are met:

Answer was NOT 'No' at question ' [G06Q72]' (Do you wish to proceed to part III?)

Choose one of the following answers

Please choose **only one** of the following:

- Not at all familiar
- Somewhat familiar
- Very familiar

Do you wish to proceed to part III? *

Only answer this question if the following conditions are met:

Answer was NOT 'Not at all familiar' at question ' [G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Yes
- No

Part III: Taxonomy of Digital Health Technologies

The goal of Part III of the survey is to gather your feedback on the development of a taxonomy for assessing digital health technologies (DHTs) at various stages of their lifecycle.

Health technology assessment (HTA) can be applied at different stages of a DHT's lifecycle. Therefore, it is crucial first to define the key stages of a DHT's lifecycle and then identify the relevant criteria for classification.

This part of the survey is informed by a targeted literature review that identified various taxonomies used for different purposes. It consists of:

- **Section A: Stages in the Life Cycle of DHTs**
 - In this section, we seek your input on the most appropriate stages of a DHT's life cycle, considering different levels of technological maturity.
- **Section B: Criteria for Classifying DHTs**
 - Here, we aim to identify essential criteria for classifying DHTs.

Based on your input, we will develop a comprehensive taxonomy that aligns with the different stages of the DHT life cycle.

Terms Used in This Survey

For this study, we adopt the definition of taxonomy from [the Office of National Statistics in the UK](#): "A taxonomy is the result of naming and classifying items into groups within a larger system according to their similarities and differences. The resulting structured terms, which can be either flat or hierarchical, provide a conceptual framework for discussion, analysis, or information retrieval."

Additionally, your responses to this survey will help us determine whether a standardized taxonomy of DHTs should include AI. For this purpose, we make the following distinction between DHTs:

- **AI-Enabled DHTs:** DHTs that integrates artificial intelligence (AI) to enhance its functionality and effectiveness.
- **Non-AI DHTs:** DHTs that do not incorporate AI algorithms.

Proceed to Section A of the survey

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question ' [G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question ' [G06Q73]' (How familiar are you with DHTs?)

Please choose **only one** of the following:

- Yes

Section A: Stages in the Life Cycle of DHTs

The classification proposed by the World Health Organization (WHO) in the [practical guide for conducting research and assessment](#) and the [Technology Readiness Levels \(TRLs\)](#) are the commonly used frameworks that delineate different stages of maturity of DHTs. Additionally, the [TRLs for Machine Learning \(ML\)](#) also demarcates the different stages of maturity but for specifically for ML tools. A summary is provided below, while more details about each of these stages of maturity can be found in the [information sheet](#).

Summary of different technology maturity levels

1. A practical guide for conducting research and assessment

The different stages of maturity of digital health interventions (defined as "the use of digital, mobile and wireless technologies to support the achievement of health objectives") include:

- Stage 1 & 2: Pre-prototype/prototypes
- Stage 3: Pilot
- Stage 4: Demonstration
- Stage 5: Scale-up
- Stage 6: Integration/Sustainability

2. Technology readiness levels (TRLs)

Technology readiness levels (TRLs) are commonly used to assess the maturity of a technology, including in the context of eHealth (defined as "an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies"). Originally developed by NASA in the early 1970s to evaluate the suitability of emerging technologies for space exploration, TRLs have since become a widely accepted framework. The following nine levels constitute different TRLs as highlighted by Stephanie Jansen-Kosterink and colleagues in 2022:

- TRL 1: Basic principle observed
- TRL 2: Technology concept formulated
- TRL 3: Proof of concept
- TRL 4: Technology is validated in living lab
- TRL 5: Pilot of technology in relevant environment
- TRL 6: Demonstration of technology in relevant environment
- TRL 7: Prototype in real life setting
- TRL 8: System complete and certified
- TRL 9: Technology is operational in real-life setting

3. Technology readiness levels (TRLs) for Machine Learning Systems

Over the years, TRLs have been adapted to various fields including machine learning. Alexander Lavin and colleagues, in 2022, adapted the TRLs originally proposed by NASA for machine learning (ML) systems. These TRLs, tailored for ML, include the following levels:

- TRL 0: First principles
- TRL 1: Goal-oriented research
- TRL 2: Proof of principle (PoP) development
- TRL 3: Systems development
- TRL 4: Proof of concept (PoC) development
- TRL 5: Machine learning 'capability'
- TRL 6: Application development
- TRL 7: Integrations
- TRL 8: Mission ready
- TRL 9: Deployment

Based on the [information sheet](#) and the summary provided, please share your personal opinion for the following questions.

Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.*

- *AI-Enabled DHTs are DHTs that integrate AI to enhance its functionality and effectiveness.*
- *Non-AI DHTs are DHTs that do not incorporate AI algorithms.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Yes, the stages in the life cycle should be similar for non-AI DHTs and AI-enabled DHTs
- No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs
- Unsure

Make a comment on your choice here:

For the purpose of developing a taxonomy to assess DHTs (both non-AI and AI-enabled DHTs) in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a DHT lifecycle?*

- AI-Enabled DHTs are DHTs that integrate AI to enhance its functionality and effectiveness.
- Non-AI DHTs are DHTs that do not incorporate AI algorithms.

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Maturity stages proposed in the practical guide for conducting research and assessment without modification
- Maturity stages proposed in the practical guide for conducting research and assessment with modification
- Technology readiness level without modification
- Technology readiness level with modification
- Technology readiness level for machine learning without modification
- Technology readiness level for machine learning with modification
- Neither of the above

Please explain any modification that you proposed in the above question?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was 'Technology readiness level for machine learning with modification' or 'Technology readiness level with modification' or 'Maturity stages proposed in the practical guide for conducting research and assessment with modification' at question '[G05Q20]' (For the purpose of developing a taxonomy to assess DHTs (both non-AI and AI-enabled DHTs) in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a DHT lifecycle?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Would you like to add comments or suggestions about the stages of maturity of DHTs?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

For the purpose of developing a taxonomy to assess non-AI enabled DHTs in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a non-AI DHT lifecycle?*

Non-AI DHTs are DHTs that do not incorporate AI algorithms.

Only answer this question if the following conditions are met: Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Maturity stages proposed in the practical guide for conducting research and assessment without modification
- Maturity stages proposed in the practical guide for conducting research and assessment with modification
- Technology readiness level without modification
- Technology readiness level with modification
- Technology readiness level for machine learning without modification
- Technology readiness level for machine learning with modification
- Neither of the above

Please explain any modification that you proposed in the above question?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was 'Technology readiness level for machine learning with modification' or 'Technology readiness level with modification' or 'Maturity stages proposed in the practical guide for conducting research and assessment with modification' at question '[G05Q23]' (For the purpose of developing a taxonomy to assess non-AI enabled DHTs in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a non-AI DHT lifecycle?) and Answer was NOT at question '[G07Q33]' (Would you like to add comments or suggestions about the stages of maturity of DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

For the purpose of developing a taxonomy to assess AI-enabled DHTs in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a AI-enabled DHT lifecycle?*

AI-Enabled DHTs are DHTs that integrate AI to enhance its functionality and effectiveness.

answer this question if the following conditions are met: Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was NOT at question '[G07Q33]' (Would you like to add comments or suggestions about the stages of maturity of DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Maturity stages proposed in the practical guide for conducting research and assessment without modification
- Maturity stages proposed in the practical guide for conducting research and assessment with modification
- Technology readiness level without modification
- Technology readiness level with modification
- Technology readiness level for machine learning without modification
- Technology readiness level for machine learning with modification
- Neither of the above

Please explain any modification that you proposed in the above question?*

Only answer this question if the following conditions are met: Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was 'Technology readiness level for machine learning with modification' or 'Technology readiness level with modification' or 'Maturity stages proposed in the practical guide for conducting research and assessment with modification' at question '[G05Q26]' (For the purpose of developing a taxonomy to assess AI-enabled DHTs in various stages of their lifecycle, which of the proposed maturity stages represents appropriate stages in a AI-enabled DHT lifecycle?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Would you like to add comments or suggestions about stages of maturity of DHTs?

Only answer this question if the following conditions are met: Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No, the stages in the life cycle should be different for non-AI DHTs and AI-enabled DHTs' at question '[G05Q19]' (Should the stages in the lifecycle of non-AI DHTs and AI-enabled DHTs be the same in a taxonomy developed to assess DHTs? Please provide a brief explanation for your choice.) and Answer was NOT at question '[G07Q33]' (Would you like to add comments or suggestions about the stages of maturity of DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Section B: Classification criteria of digital health technologies

In the literature, we found multiple taxonomies that classify DHTs using various criteria, including intended purpose of the DHT, primary user of the DHT, digital health architecture, seriousness of the health condition, capability to personalize the response, and autonomous nature of the DHT. We provide a summary of these with the questions, while more details can be found in the [information sheet](#).

To develop a common taxonomy that can be applied throughout the DHT life cycle, it is important to gather your feedback on the importance of the different classification criteria and related sub-classes.

For the following questions, please share your personal opinion.

Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question ' [G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question ' [G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Yes
- No
- Unsure

Make a comment on your choice here:

Classification criteria: Intended purpose

There are multiple taxonomies that classify DHTs on the basis of the intended purpose of the DHT. These taxonomies include the [Evidence Standard Framework \(ESF\)](#) for digital health technologies (UK) and the [Functional classification \(Haute Autorité de Santé - France\)](#).

There is significant overlap between the sub-classes proposed by these two frameworks. By combining the sub-classes from both the ESF and the Functional Classification, the following unified sub-classes of DHTs based on their intended purpose can be identified:

- DHT intended to save cost or release staff time, there is no direct patient, health or care outcome. Eg: Software for sharing patient data.
- DHTs for helping citizens and patients to manage their own health. Eg: An app intended for patients to track pain.
- DHTs for prevention, screening, diagnosis, compliance, monitoring or treatment, or for guiding care choices. Eg: An algorithm intended to fast-track the diagnosis of breast cancer.
- DHTs to provide general information, provide health professional training material or tools. Eg., App for health professional training

How important is the intended purpose of a DHT as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the intended purpose of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AI DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the intended purpose of a AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on intended purpose? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Unsure' or 'Yes' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G09Q35]' (How important is the intended purpose of a DHT as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers Please
choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying non-AI DHTs based on their intended purpose? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G09Q36]' (How important is the intended purpose of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AI DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on their intended purpose? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G09Q37]' (How important is the intended purpose of a AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments or suggestions about the classification based on intended purpose of DHTs?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Classification criteria: Primary user of the DHTs

[Classification of digital interventions, services and applications in health](#) proposed by the WHO, classifies DHTs on the basis of the primary user of the DHTs.

Sub-classes when classifying DHTs based on primary user include:

- DHTs targeting members of public (*potential or current users of health services and caregivers of individuals receiving health services*)
- DHTs targeting healthcare providers (*members of the health workforce who deliver health interventions*)
- DHTs targeting health system managers (*personnel involved in the administration and oversight of health systems*)
- DHTs targeting data services (*technologies implemented to support objectives that are targeted toward optimal data management, use and governance*)

How important is the primary user of a DHT as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Unsure' or 'Yes' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the primary user of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AI DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the primary user of an AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on their primary user? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Unsure' or 'Yes' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G10Q43]' (How important is the primary user of a DHT as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying non-AI DHTs based on their primary user? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G10Q44]' (How important is the primary user of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AIDHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on their primary user? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G10Q45]' (How important is the primary user of an AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments or suggestions about the classification based on the primary user of DHTs?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Classification criteria: Digital Health Architecture

[Classification of digital interventions, services and applications in health](#), proposed by the WHO, classifies DHTs on digital health architecture.

For the purpose of this survey, digital health architecture is defined as the systems and services that underpin the operation, management, and delivery of healthcare services through digital means.

Sub-classes when classifying DHTs based on digital health architecture include:

- Point of service (“Systems that facilitate the provision and delivery of healthcare services to persons at the point of care”)
- Health system/provider administration (“Systems that provide capabilities that facilitate the administrative and clinical management aspects of health systems”)
- Registries and directories (“Systems that serve as a central authority for maintaining specific sets of data”)
- Data management services (“Systems that serve as a repository containing data that has been validated”)
- Surveillance and responses (“Systems that support the continuous, systematic collection, analysis and interpretation of data for use in health contexts”)

How important is digital health architecture of a DHT as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the digital health architecture of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AI DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the digital health architecture of an AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on their digital health architecture? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G11Q48]' (How important is digital health architecture of a DHT as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying non-AI DHTs based on their digital health architecture? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G11Q49]' (How important is the digital health architecture of a non-AI DHT as a classification criterion in a standardized taxonomy for non-AI DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on their digital health architecture? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G11Q51]' (How important is the digital health architecture of an AI-enabled DHT as a classification criterion in a standardized taxonomy for AI-enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments or suggestions about the classification of DHTs based on their digital health architecture?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Classification criteria: Seriousness of the health condition

Classification of [Software as a Medical Device](#) developed by IMDRF proposed a risk based classification of DHTs where the risk is based on the seriousness of the health condition.

Sub-classes when classifying DHTs based on the seriousness of the health condition DHTs are addressing are:

- DHTs for non-serious health conditions
- DHTs for serious health conditions
- DHTs for critical health conditions

How important is the seriousness of the health condition a DHT is addressing as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the seriousness of the health condition a non-AI DHT is addressing as a classification criterion in a standardized taxonomy for non-AI DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is the seriousness of the health condition an AI-enabled DHT is addressing as a classification criterion in a standardized taxonomy for AI-enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on the seriousness of the health condition they are addressing? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G12Q56]' (How important is the seriousness of the health condition a DHT is addressing as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying non-AI DHTs based on the seriousness of the health condition they are addressing? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G12Q57]' (How important is the seriousness of the health condition a non-AI DHT is addressing as a classification criterion in a standardized taxonomy for non-AI DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on the seriousness of the health condition they are addressing? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G12Q58]' (How important is the seriousness of the health condition an AI-enabled DHT is addressing as a classification criterion in a standardized taxonomy for AI-enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments or suggestions about the classification based on the seriousness of the health condition?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Classification criteria: Capacity of DHTs to personalise the responses for the user

[The Functional classification \(Haute Autorité de Santé - France\)](#) proposed a classification based on intended purpose but supplemented by the capability of the DHTs to personalise the DHTs for the user. Personalization in this context refers to the ability of a DHT to adapt and tailor its services, content, or recommendations to meet the specific needs, preferences, or characteristics of an individual user.

Sub-classes when classifying DHTs based on their ability to personalize responses include:

- DHTs capable of providing personalized responses to the user
- DHTs that do not support personalization

How important the ability of a DHT to personalize responses to the user as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important the ability of an AI-enabled DHT to personalize responses to the user as a classification criterion in a standardized taxonomy for AI-enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on their ability to personalise responses for the user? *Please provide a brief explanation for your choice.**

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G13Q63]' (How important the ability of a DHT to personalize responses to the user as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'Yes' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on their ability to personalize responses for the user? *Please provide a brief explanation for your choice.**

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G13Q64]' (How important the ability of an AI-enabled DHT to personalize responses to the user as a classification criterion in a standardized taxonomy for AI-enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers

Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments about the classification based on capacity of DHTs to personalize the responses for the user?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question ' [G02Q02]' (I agree with the above mentioned statements.) *and* Answer was NOT 'No' at question ' [G06Q72]' (Do you wish to proceed to part III?) *and* Answer was NOT 'Not at all familiar' at question ' [G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Classification criteria: Autonomous nature of DHTs in terms of human intervention

[The Functional classification \(Haute Autorité de Santé - France\)](#) proposed a classification based on intended purpose but supplemented by the autonomous or non-autonomous nature of the DHTs in terms of human intervention.

Sub-classes of DHTs based on the level of required human intervention include:

- Autonomous DHTs capable of making decisions without prior human intervention
- Non-autonomous DHTs that require human intervention

How important is it the level of human intervention required for a DHT to function as a classification criterion in a standardized taxonomy for DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

How important is it the level of human intervention required for the AI-enabled DHT to function as a classification criterion in a standardized taxonomy for AI- enabled DHTs?*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Not important
- Minimally important
- Somewhat important
- Important
- Very important

Do you agree with the proposed sub-classes for classifying DHTs based on the level of human intervention required? Please provide a brief explanation for your choice*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'Yes' or 'Unsure' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G14Q68]' (How important is it the level of human intervention required for a DHT to function as a classification criterion in a standardized taxonomy for DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Do you agree with the proposed sub-classes for classifying AI-enabled DHTs based on the level of human intervention required? Please provide a brief explanation for your choice.*

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was 'No' at question '[G06Q30]' (Should the classification criteria for non-AI and AI-enabled DHTs be the same in a taxonomy developed to access DHTs? Please provide explanation to your response.) and Answer was NOT 'Not important' at question '[G14Q69]' (How important is it the level of human intervention required for the AI-enabled DHT to function as a classification criterion in a standardized taxonomy for AI- enabled DHTs?) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Choose one of the following answers
Please choose **only one** of the following:

- Agree
- Disagree
- Unsure

Make a comment on your choice here:

Would you like to add comments about the classification based on the level of human intervention required for DHTS to function?

Only answer this question if the following conditions are met:

Answer was 'Agree' at question '[G02Q02]' (I agree with the above mentioned statements.) and Answer was NOT 'No' at question '[G06Q72]' (Do you wish to proceed to part III?) and Answer was NOT 'Not at all familiar' at question '[G06Q73]' (How familiar are you with DHTs?)

Please write your answer here:

Thank you for participating in the first round of this survey!

Would you be interested in participating in Round 2 of the survey?*

Choose one of the following answers

Please choose **only one** of the following:

- Yes
- No

Please provide your email address so we can contact you for Round 2 of the survey.

Only answer this question if the following conditions are met:

Answer was NOT 'No ' at question '[G15Q69]' (Would you be interested in participating in Round 2 of the survey?)

Please write your answer here:

Do you have any general comments or suggestions regarding the definition and taxonomy of DHTs?

Please write your answer here:

