

**IEEE P7003 Working Group
Meeting Minutes
1st April 2021 / 1:00 PM. – 3:00 P.M. UTC
Teleconference**

1. Call to Order

The meeting was called to order at 13:06 UTC

2. Roll call and Disclosure of [Affiliation](#)

The list of attendees is attached. A quorum was established and noted.

3. Approval of April Agenda

Proposal to move 8.3 to 8.1 – Approved

Proposal to add a point on behaviour and exchanges within the larger group (8.0) – Approved

Proposal to add a point on how the standard is going to represent and assess the various biases that the standard is considering (8.4) – Approved

Motion to approve the amended agenda for April 1st 2021. The agenda was approved without objection.

4. [IEEE Patent Policy](#) (Call for Patents)

The call for patents was raised; no one raised any concerns or any comments for consideration

5. [IEEE SA Copyright](#)

The copyright policy was presented.

6. Approval of 4th February meeting minutes

March did not reach quorum so they are notes and do not need approving

Motion to approve the meeting minutes from 4th February 2021. The minutes were approved without objection.

7. Announcements

No announcements

8. Structural review of P7003 document

Communication on mailing list

Tensions are rising in the email and there have been some inflamed comments. The public forum needs to remain an acceptable and useful opinion exchange. We are all very committed, and often fire off emails but it is becoming less positive and conducive to

getting us to progress in the standard. Things that have been on the mailing list recently would normally have been confined to subgroup discussions rather than bombarding everyone with email. However, it was pointed out that some of the issues do pertain to the group as a whole, and as the reflector includes everyone it keeps things on record. Certain discussions are essential to the work. Ansgar pointed out that the reflector is not a means to keep things on record; things need to be agreed with the group but the email is not the way to do it. Some people felt that whilst this is a group effort and we should be respectful of the work that has gone before, this feels to have changed over the last few months. Disagreement and difference of opinions should be acknowledged and dealt with with understanding.

Ansgar asked for suggestions for changes in the way that he has been dealing with things. General consensus was that Ansgar has been doing an excellent job and we like him the way he is! However, it was felt that when things do need to be discussed, it's often best to do it by voice. Maybe we need some extra meetings to rethink some things. Suggestion for another whole day that people can jump into and out of - maybe 24 hours, so let's find another date for that.

I. Focused discussion of Performance Evaluation section

Purpose is to evaluate the whole system, and to do that the section is divided into four main sections. Rahaf began the discussion of the first two sections, what the aim of each is, and areas where they have questions. Question: are we duplicating content between sections? Gerlinde suggested it might be helpful to look at the outcomes from the representativeness section to see the inputs for the performance evaluation section, but doesn't think there's duplication because of the different focus on the sections. Choosing bias measurement metrics is a tricky area that could be moved to an informative section, but the main thing is that the user has to choose a metric. Bias is not the same as discrimination or fairness, what do we want to say the definition of bias is for this standard? They are different but related, we should stick to talking specifically about bias, rather than expanding the scope to fairness or discrimination? However a lot of what we talk about is actually algorithm fairness, but we do not measure discrimination or fairness, we measure bias. Our scope is on unjustified and unacceptable bias – what constitutes this is related to whether it causes discrimination and what is fair. About minimising unjustified bias, in places we have discussions about choosing definitions of bias and the role of discrimination and fairness choices in relation to identifying what constitutes unjustified bias. We ask the people to engage in their definition of fairness and reasoning for it what they decide to use. We cannot be the ones that define what the correct definition of fairness is, but can instruct that there needs to be one for the people developing the AIS. However, Annette pointed out that we do need to define some of the fundamental concepts in the standard, can use existing definitions to guide the standard. It is also important to distinguish outcomes from outputs; outcomes are usually what you get when you fulfil the purpose of the standard. We also have activities/actions and tasks. It is best to make all of them in the imperative, to describe what should be done eg 'Evaluate' rather than 'Evaluating'. Annette suggested the following might be useful: ISO/IEC TR 29119-11:2020(en) Software and systems engineering – Software testing – Part 11: ISO/IEC TR 29119-11:2020(en) Software and systems engineering – Software testing – Part 11: Guidelines on the testing of AI-based systems. Paola suggested that a lot depends on what type of bias we are discussing, it might be useful to refer to IEEE 1471 views and viewpoints, <https://www.iso.org/obp/ui/#iso:std:iso-iec-ieee:42010:ed-1:v1:en> but it's no longer used and has been superseded. Bias starts in

algorithmic design. Need to specify what type of bias, how it is represented, and how it is developed.

We need to balance the detail to allow people to actually be able to use the standard. Bias types is a continuously evolving list. But not detailing enough makes it ineffective. Refer to taxonomy section on referring to different types of bias. Users need to identify the biases that might be relevant and effective.

Jussi took over the discussion on evaluation of outcomes, which uses the waterfall model as a base. Lots of comments being added so we're trying to streamline now to include the important points. Discussion of moving various points to other sections for better iteration of the sections.

Julian took on the ongoing evaluation section. One challenge has been how to unpick the feedback loops in the sections and with other sections.

Discussion also on what is meant by algorithmic awareness.

Stakeholder identification is attributes rather than an exhaustive list of stakeholders.

II. Graphical representations of P7003 structure and concepts

A team has been working on lifecycle of AI graphical representation. It is notoriously difficult to represent a lifecycle that isn't straight waterfall. Maintenance and serving are continuous from deployment until disposal along with monitoring, and evaluation goes on at every process stage in the top line. Often too complex to represent properly. Suggest remove the green arrows. Several people asked why is retirement not part of the lifecycle? How an AIS is retired is significant, bias can get in at that point eg if some group is still reliant on the system that is being retired, and others are not. Could use the lifecycle to give examples of where bias may be injected.

III. Review of gaps in P7003 development that require attention.

Everyone please take a look at the new master document – 2021 March.

IV. Definitions of bias (folding in taxonomy section discussion)

Taxonomy section potential for renaming: there are currently 2 pieces to this section, that sit separately. One is conceptual thinking about bias issues and a theoretical perspective, which contains valuable information that could help people trying to tackle issues of bias and where it comes from etc. Suggest to retain that in a separate annexe that is not a taxonomy but carry a different name. Taxonomy section that Paola has been leading should be the new taxonomy section. Paola took us through the idea for the taxonomy, as essentially an index of concepts used in the standard. Led from a mindmap to a table of concepts and the places where the concepts are discussed or important.

Annette pointed out that vocabulary and definitions must go at a set place in the standard already. Concern that building a model of concepts can be useful but can also restrict the use of concepts. Would have been useful in p7000, this can help with precision in terminology which is of great value to someone using the standard.

The taxonomy aims to relate concepts to the lifecycle analysis, in a logical rather than alphabetical vocabulary section. Taxonomy goes further to relate the concepts to each other and to each section.

The allotted time for the call was up at this point: there will be an additional call to come, to continue discussions.

9. Updated Outline Discussion

- i. Requirements
- ii. Stakeholder Identification
- iii. Risk and Impact Assessment
- iv. Representativeness of data
- v. Performance evaluation
- vi. Taxonomy ← propose new name for this section
- vii. Legal frameworks
- viii. Human Factors
- ix. Cultural aspects

10. Any Other Business

11. Future Meetings

- Thursday 6th May 2021 @ 2100 UTC
- Thursday 3rd June 2021 @ 0500 UTC

12. Adjourn

The meeting was adjourned at 15:00 UTC

Last Name	First Name	Employer/Affiliation	Voting
Albalkhi	Rahaf	Independent	X
Chung	Edmon	dotAsia	
Clifton	Chris	Purdue University	X
Courtney	Patrick	Tec-connection	X
Di Maio	Paola	Independent	
Dowthwaite	Liz	University of Nottingham	X
Duarte	Tania	Independent	
Gardner	Allison	Keele University	
Hladikova	Sarah	Tufts University, Boston	
James	Clare	Independent	X
Koene	Ansgar	University of Nottingham	X
Leppala	Jussi	Valmet	X
Loughran	Roisin	Dundalk Institute of Technology	X
Padget	Julian	University of Bath	X
Pena	Abel	Code Explorers Worldwide	X
Ramlal	Babita	Independent	
Reilly	Annette	Independent	
Rivas	Pablo	Baylor University	X
Shaw	Trish	Beyond Reach	X
Weger	Gerlinde	Independent	X
Bahn	Christy	IEEE Staff	