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| ITU Logo | INTERNATIONAL TELECOMMUNICATION UNION  **TELECOMMUNICATION STANDARDIZATION SECTOR**  STUDY PERIOD 2017-2020 | | TSAG-TD636 | | |
| **TSAG** | | |
| **Original: English** | | |
| **Question(s):** | | N/A | | Geneva, 23-27 September 2019 | |
| **TD** | | | | | |
| **Source:** | | Chairman, Adhoc Group on the FG Commons Proposal | | | |
| **Title:** | | Report of the Adhoc group FG Commons to Plenary | | | |
| **Purpose:** | | Information | | | |
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| **Keywords:** | Minutes, Adhoc; Proposal; Focus Group; Commons; |
| **Abstract:** | This report summarises the discussions of the three adhoc sessions on FG Commons |

The adhoc group met three times under the chairmanship of Mr Ahmed Said:

* Tuesday 24 September, 12:50 – 14:40 (meeting report in TD626)
* Wednesday 25 September 13:00 – 14:35
* Thursday 26 September 13:30 – 14:40

In the first meeting, the rationale, scope and objectives were discussed. The questions and answers are reproduced in Annex 1 (from TD626). They were reviewed in the 2nd meeting, and further questions were asked and answers provided. The 3rd meeting was dedicated to sound out whether or not there was support for the creation of a FG Commons. Annex 2 contains the modified Rational and the Terms of Reference (changes with respect to C63 in yellow; from TD626).

There is a general feeling that the topic that the focus group would be working on is important.

A lot of members support the creation of a FG Commons although there are some voices that ask that the proposal be resubmitted to the next TSAG meeting.

The following Member States took the floor and voiced their support that FG Commons be created immediately:

* China said that while the scope was not clear at the beginning, with the explanations provided by Amir over the past days, the scope has become clearer and China now supported the creation of a FG. The direction was right, and little corrections could be done by the FG.
* Egypt said that while at the first adhoc group meeting there were many questions because the scope was not well understood, Egypt would now like to give the FG a chance, supported its creation, and said that the FG needs to take into account industry needs.
* Jordan said that to improve work on smart cities, data need to be analysed with advanced algorithms and computers and that we should not delay the work and therefore supported the creation of the FG.
* Nigeria was in favour of the creation of the FG and said that the Terms of Reference need to be looked at to make them acceptable.
* Russia said that AI was everywhere, that we can’t miss the opportunity to get this community involved, that ITU was the right place to do this work and that no time should be wasted to create the FG.
* Spain said that the creation of the FG was a historical opportunity for ITU. While the Terms of Reference may be very specific or very generic, depending on one’s point of view, Spain wouldn’t understand why the FG would not be launched.
* UAE said that while there are other organizations working on AI, we are in ITU, and that we needed to get started now.
* Zimbabwe said that they were not convinced by arguments against creation of the FG, that there was a good understanding of the scope of the project, and that there were no financial implications for TSB.

The following Sector Members took the floor and voiced their support that FG Commons be created immediately:

-        ADA  Innovation Lab said that this work was of high importance to the autonomous driving industry, that it was a cross-cutting topic that was needed for AI to realise its full potential across all industry sectors, and that open data sets need to be provided for academia to do research.

* Tunisia Telecom said it supported the creation of the FG.

The United States of America opposed the creation of the FG at this TSAG meeting. There was still confusion, the scope was generic and time was needed to socialize the idea. There was no rush and they suggested that a proposal with revised Terms of Reference could be submitted to the next TSAG meeting,

Australia didn’t support the creation of a FG and thought that a JCA (Joint Coordination Activity) would be a better vehicle.

The United Kingdom said that the scope was generic, that other SDOs are doing use cases, that a gap analysis needed to be done and that the UK would not see value in the creation of the FG.

Canada said that the problem was important but that clarity was still needed, that the FG may perhaps not be the right vehicle, and that if the proposal were resubmitted at the next TSAG meeting Canada didn’t think there would be opposition.

Japan wanted to know who the proposed leadership would be and who the experts were that would contribute to the work. Amir Banifatemi (XPRIZE) said that he would be honoured to be the chair of the FG, and he listed the companies that have been waiting for the last nine months for this TSAG meeting to take a decision, such as Google, Facebook, Intel, Symantec, India, MILA (Montreal), Element AI (Toronto), China Telecom, companies in Japan and others. The FG was open to all, including non-ITU members, and all sector members of ITU would be invited to join the FG.

GSMA did not oppose the creation of a FG but wanted to have a better understanding of the scope.

The European Union said that Commons was important but that the scope of the FG was too broad and that the proposal should come back to the next TSAG meeting.

**Annex 1 - Questions and Clarifications (from TD626)**

**1. What is the problem statement?**

AI brings about a paradigm shift in problem solving. The ICT/telecommunications sector has a number of challenges that can be more efficiently solved using AI. We notice that this has started in an ad hoc fashion in various SGs and FGs in ITU-T; however, to scale and accelerate problem solving, a new approach is needed:

* Requiring domain experts (automotive, health, finance) to work together with ICT/AI experts on identifying solutions
* The availability of more data does not automatically translate to more collaboration and problem solving, therefore access to discoverable, relevant, labelled data is an obstacle
* Evaluating collectively solution feasibility, before scaling

**2. Is the proposal for an “AI and Data Commons”, or a “Data Commons for AI Commons”, or a “Commons of AI and Data” or something else? What is the right title?**

The intention is to create an AI Commons. The current opportunity is to look at data and AI jointly, in order to achieve an AI Commons.

**3. Does the scope include private data? There seems to be a contradiction in the written Terms of Reference with what is explained orally.**

The Terms of Reference need to be clarified. The main goal is to make metadata discoverable, not the actual data. The metadata would simply label data as private or open.

**4.** **Is the FG proposed to work on ethics?**

No. There is already work by IEEE Standards (P7000 Ethical design of AI) that will be referenced as needed.

**5. Would the FG work on creating new data?**

No.

**6. What exactly is decentralized?**

The problem-solving sandbox is decentralized; the decentralization does not concern the data. Many organizations can adopt the specifications to implement their own sandboxes.

**7. There are existing data repositories and portals already, why do we need AI and Data Commons?**

There are today many data collaboratives, data trusts, and open data portals. However there is no tie between them and AI models that could benefit from them. AI and Data would need to be seen as combined. So, from a problem-solving perspective, it is important to know what relevant data are available to support AI solution building.

**8. How about data ownership, and governance of data?**

The Focus Group does not address ownership of data. The ownership and governance of data remains with data owners and creators.

**9. Will ITU create a global data repository?**

No, the Focus Group will not create a global data repository. The goal is to create specifications, syntax, headers, and signaling protocols that allows existing data repositories to be discoverable to potential problem solvers using AI.

**10. What does AI commons have to Telecommunications and ICTs?**

Although a lot of data sits in existing data repositories a very interesting source of data for AI problem solving would be real time data coming from IoT sensors transmitted over both legacy and future telecommunications networks used in various scenarios like smart cities, intelligent transport systems, agriculture, energy management systems, etc.

**Annex 2: Clarifications on the Rationale and ToR (from TD626; sections 5-19 from C63R2)**

**Rationale**

On 28-31 May 2019, ITU convened the third AI for Good Global Summit in Geneva, which served as a platform for exchange of experts’ views toward developing a better understanding of the future of machine intelligence. During the course of the three AI for Good Global Summits from 2017-2019, there has been observed and requested a consistently growing need for common practices and collaboration in order to ensure the development of safe and transparent AI solutions.

Additionally, the global AI competition organized by XPRIZE and its partners (IBM, AAAI, IEEE, Intel, and many Academic institutions) has identified across 150 projects in 42 countries the need for a standardized approach to evaluate how AI can help accelerate solution building.

The scope of problem witnessed from above efforts showed that many “somehow different” problems have in fact very similar and common approaches in their resolution using AI.

In fact, from an AI impact perspective -while problems initially seem different because of socio-economic, geographic, or cultural contexts- their solutions are based on similar patterns and elements (problem scoping, relevant data availability, evaluation and iteration with AI models in a collaborative environment between experts and problem owners).

The increased availability of data on a global level does not always translate in more data usage. To be relevant for AI models, datasets requires additional metadata layer and context of usage that signals applicability and long-term readiness of data for solution scalability.

To help disseminate more problem-solving approaches that benefits from the growing capabilities that AI offers, providing collaboration opportunities and incentives to share practices and knowledge are important.

In order to utilize the momentum gained by the above, we would like to perform pre-standardization efforts that will form the basis for future international standardization activities, there is a need for a Focus Group to study and develop work items of AI Commons.

#### Annex A: Terms of References: ITU-T Focus Group AI Commons (Scope, Objectives, Specific Tasks and Deliverables, Relationships clarified)

**1. Scope**

The “AI Commons” is an open collaboration that aims at specifying how to approach problem solving with AI and make it available as a commons.

The AI Commons will work towards proposing solution building “sandboxes” (i.e., collaborative environments including cloud, compute, and AI model examples) with support of curated, discoverable and interoperable data repositories organized by topic, community or interest.

Other Standardization efforts around problem statements, data sharing and usage, interfaces and interoperability that are undertaken by other organizations and SDOs will be considered collaboratively in the scope of this work.

AI Commons bring together via the specifications and the sandbox model a way to connect problem owners and the community of AI practitioners, and facilitate collaboration to identify solutions.

A wide range of actors[[1]](#footnote-1) need to collaborate to make AI globally equitable and an international collaboration is needed. As the goal is to solve for systematic ways to utilize AI in a relevant and beneficial manner, an ITU-T Focus Group would help this initiative to be open to everyone and gathering relevant information and tests coming from both member states and industry members.

**2. Objectives of the FG-AI Commons**

The objective of the Focus Group is to conduct analysis and specification work in order to create an open framework for collaboration and sharing of expertise and know how to use AI to solve meaningful challenges at scale, while identifying relevant gaps and issues in standardization activities related to this topic.

More precisely, the objectives include:

* To analyse the requirements for creating an easy-to-access decentralized AI Commons for collaboration and cooperation between problem stakeholders and problem solvers;
* To study problem-statements and problem-capture (expression) mechanisms from an AI standpoint, to facilitate matching with problem solvers, and usage of existing solutions;
* To work in conjunction with other organizations to:
  + identify the design principles and requirements on functionality, interfaces and capabilities to develop a platform for AI Commons;
  + analyse security and trust concerns in data sharing and AI capabilities;
* To support deployment and collaboration of identified solutions in a sustainable way;
* To identify tools and mechanisms for promoting participation and supporting incentives to be available to all stakeholders, and to leverage the global reach of the AI for Good Global Summit in this regard;
* To identify challenges in the standardization activities for the AI Commons;
* To stimulate international collaborative efforts to maximize the social benefit of AI and establish liaisons and relationships with other organizations which could contribute to the standardization activities for AI Commons.

**3. Specific Tasks and Deliverables**

* To **study, review and survey** existing technologies, platforms, guidelines and standards for AI Commons and related data usage requirements;
* To **develop a report** containing definitions of terminologies and taxonomies for AI Commons. This guide can also help identify the various stakeholders involved and with an interest in the AI Commons ecosystem;
* With the objective of developing an open and decentralized platform for AI Commons:
  1. To **identify and analyze use cases**;
  2. To **develop a requirement document** derived from the use cases;
  3. To **develop a framework** of AI Commons based on the identified requirements;
  4. To **develop an architecture** of an open and decentralized platform including core functions and interfaces based on the framework;
  5. To **develop specifications** for trusted AI Commons sandboxes;
  6. To **develop specifications** for relevant and usable data; including criteria for discoverability and usefulness for AI models
  7. To **analyze standardization gaps** related to AI Commons and **develop a future standardization roadmap**.

In doing so, the following aspects needs to be taken into account:

* To **investigate and identify technical enablers** (e.g., tools, mechanisms, data sets, sandboxes) for participation, collaboration and incentives and analyze feasibility of identified technical enablers;
* To **analyze security and trust concerns**;
* To **take into consideration the activities currently undertaken by the various standards developing organizations (SDOs) and forums**. In this regard, to develop a list of standards bodies, forums, consortia and other entities dealing with aspects of AI Commons and liaise with organizations, which could contribute to the standardization activities on AI Commons;
* To **organise thematic workshops** on AI Commons, which will bring together all stakeholders, and promote the FG activities and encourage both ITU members and non-ITU members to join its work.

**4. Relationships**

This Focus Group will work closely with all ITU-T study groups, especially SG5, SG11, SG13, SG16, SG17 and SG20. Based on outcomes of the FG-DPM (FG-DPM already developed 15 deliverables on data, including security, privacy, risk and governance), FG-AI Commons will utilize results of FG-DPM and enhance them if necessary, in the AI commons context. Also, this FG-AI Commons will coordinate with FG-AI4H and FG-ML5G. Furthermore, the FG-AI Commons will collaborate with other relevant groups and entities, in accordance with Recommendation ITU-T A.7. These include non-governmental organizations (NGOs), non-profits or local governments, policy makers, SDOs, industry forums and consortia, companies, academic institutions, research institutions and other relevant organizations.

**5. Structure**

The FG-Commons may establish sub-groups if needed.

**6. Parent group**

The parent group of the FG-Commons is **ITU-T Telecommunication Standardization Advisory Group (TSAG)**.

**7. Leadership**

See clause 2.3 of Recommendation ITU-T A.7.

**8. Participation**

See clause 3 of Recommendation ITU-T A.7. A list of participants will be maintained for reference purposes and reported to the parent group.

It is important to mention that the participation in this Focus Group has to be based on contributions and active participations.

**9. Administrative support**

See clause 5 of Recommendation ITU-T A.7.

**10. General financing**

See clauses 4 and 10.2 of Recommendation ITU-T A.7.

**11. Meetings**

The Focus Group will conduct regular meetings. The frequency and locations of meetings will be determined by the Focus Group management. The overall meetings plan will be announced after the approval of the terms of reference. The Focus Group will use remote collaboration tools to the maximum extent.

The meeting dates will be announced by electronic means (e.g., e-mail and website, etc.) at least four weeks in advance.

**12. Technical contributions**

See clause 8 of Recommendation ITU-T A.7.

**13. Working language**

The working language is English.

**14. Approval of deliverables**

Approval of deliverables shall be taken by consensus. The focus group will send the final deliverables to ITU-T TSAG at least four calendar weeks before a TSAG meeting in accordance with Recommendation ITU-T A.7.

**15. Working guidelines**

Working procedures shall follow the procedures of Rapporteur meetings. No additional working guidelines are defined.

**16. Progress reports**

See clause 11 of Recommendation ITU-T A.7.

**17. Announcement of Focus Group formation**

The formation of the Focus Group will be announced via TSB Circular to all ITU membership, via the ITU-T Newslog, press releases and other means, including communication with the other involved organizations.

**18. Milestones and duration of the Focus Group**

The Focus Group lifetime is set for two years from the first meeting.

**19. Patent policy**

See clause 9 of Recommendation ITU-T A.7.

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1. Academic researchers, Entrepreneurs, Investors, NGOs, Governments, Industry players [↑](#footnote-ref-1)