Information on ISO/IEC JTC1 SC41's intention to form a

Study Group on Societal and Human factors in IoT Based Services

What is planned:

An "ad hoc group" that would have three initial electronic meetings at 13.00 UTC on 2018-08-02, 2018-09-03 and 2018-10-01. A first report on the group's work and initial recommendations will be prepared for the November 26-30, 2018 meetings of ISO/IEC JTC1 SC41 and its WGs in Yokohama (Japan). Those who will be in Yokohama will have an in-person meeting there. After that, there will be further electronic meetings, with the group's final report and recommendations being prepared for the May 2019 meetings of ISO/IEC JTC1 SC41 and its WGs.

Note: Formally, the creation of this study group is still contingent on its approval by the national member bodies of ISO/IEC *in a so-called letter ballot. That is however believed to be a pure formality.*

The topic of the group:

The study group will investigate the human-centric perspective on IoT applictions that aim to benefit human end users: In an IoT enabled world, aspects of every human's life are enhanced by, observed by, and in other ways affected by many IoT based sevices; therefore these need to be trustworthy from the perspectives of the user of the service, of other affected individuals, and of society as a whole. For example, in services like surveillance, there are human subjects as well users as of the service.

What the group will do:

The overall task for the study group, as foreseen in the relevant SC41 decision (formally called a „resolution" of SC41's May 2018 plenary meeting) is to explore the possibility of additional standards or guidance in the area of IoT and related technologies within SC 41.

This means that the discussions of the study group are somehow expected to lead to ideas for projects to develop standards and/or related "guidance" documents. For example, in the present context, one possibility for such a standardization activity might be an adaptation to the specific case of IoT system implementation projects of the standard ISO 9241-210:2010 «Ergonomics of human-system interaction — Part 210: Human-centred design for interactive systems».

Also, if the study group comes to the conclusion that there is a need for standards that could be referenced in national regulations aiming to regulate the IoT ecosystem, aiming e.g. to prevent it from leading to Orwellian surveillance and control, or to prevent it from resulting in some other type of human rights violations, then ISO/IEC JTC1 SC41 is precisely the right place for such standardization, as ISO and IEC standards are recognized under WTO rules as International Standards which can be referenced in national regulation without violating WTO rules.

It is possible for a study group to recommend a standardization activity to be undertaken jointly with another committee that SC41 has a liaison relationship with.

On the other hand, it is also possible and perfectly acceptable for a study group to only lead to the development of a better understanding of the topic under consideration. The experts who participate in standardization projects that are being undertaken anyway will at their discretion refer to the study group report when they consider that appropriate.

More concretely, the activities which are foreseen for a study group are defined in its "terms of reference". In the present case, these are:

- Identify categories of IoT based services to humans, with specific respect to their relevant technical properties, and explore how they relate to SC41's current and potential future work.
- Investigate in particular the trustworthiness aspects of IoT based services to humans, and how they relate to SC41's current and potential future work on trustworthiness.
- Use SC41's liaison relationships to reach out to other committees whose work is highly relevant to this topic area, including in particular SC29 whose work on Internet of Media Things is highly relevant, SC42 on Artificial Intelligence, and IEC SyC-AAL.
- Report on its findings, and make initial related recommendations, to SC41 and its WGs, at the November 2018 meetings.

Who can participate:

The national member bodies of ISO and IEC which are so-called P-members («participating members») of the committee ISO/IEC JTC1 SC41 can nominate experts to the study group. Standardization committees who have a liaison relationship with SC41 can do the same. In addition, the chair of the study group is able to invite external experts to attend meetings as guests and/or to make contributions.

Further background information:

ISO/IEC JTC1 SC41 on *Standardization in the area of Internet of Things and related technologies* has been created as a "systems integration entity" (cf. ISO/IEC JTC1 Standing Document 24, Systems Integration Standardization Guidelines). This implies in particular that SC41 should maintain a holistic view of the area under its responsibility. It is therefore appropriate for ISO/IEC JTC1 SC41 to consider *inter alia* the human-centric perspectives.

SC41 has identified trustworthiness as an important concern for IoT. This concern has already been looked at by study groups in the context of industrial IoT (cf. Study Report of SG on Industrial IoT, SC41N0558) and from a perspective inspired by security standards (cf. Study Report on Trustworthiness, SC41N0497). One standardization project in relation to this concern has recently been approved (cf. SC41N0522 Voting result on NP Methodology for trustworthiness of IoT system/service) and in addition, a standardization project on a framework for trustworthiness is being proposed (cf. Study Report on Trustworthiness, SC41N0497).

However, SC41 has not yet done any study on the human-centric perspectives on trustworthiness of IoT in order to understand what needs to be done to be able to satisfy the trustworthiness expectations and needs of human users, of other directly affected people, and of society as a whole.

Hence the urgent need for this study group.

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Note: The information in this italic font should at this stage be considered personal views of the author, while information for which official sources are available is written like this.