The Conference toward AI Network Society of Japan

June 12, 2020

Dear European Commission

Subject: Public Consultation on the White Paper On Artificial Intelligence – A European approach to excellence and trust (COM (2020) 65 final)

The Conference toward AI Network Society of Japan (hereinafter "the Conference") is a multi-stakeholder advisory group made up of experts which was established and is hosted by the Ministry of Internal Affairs and Communications of Japan, and chaired by Dr. Osamu Sudoh, Professor at the Faculty of Global Infomatics, Chuo University and Project Professor at the Graduate School of Interdisciplinary Information Studies, University of Tokyo. The purpose of the Conference is to study social, economic, ethical, and legal issues towards promoting AI networking across the entirety of society. The Conference formulated the Draft AI R&D Guidelines for International Discussions in July 2017[1] and the AI Utilization Guidelines in August 2019[2].

The Conference has a great deal of interest in the White Paper On Artificial Intelligence (hereinafter "the White Paper") as the White Paper posits an ecosystem of excellence and trust for AI. Some members of the Conference have written comments or position papers about the White paper in response to the Public Consultation. Therefore, we cordially submit their comments and position papers as attached below. We would be honored if these comments and position papers could contribute to discussions of the White Paper.

DISCLAIMER:
The views expressed in each attached paper are the sole responsibility of the author/s and do not necessarily reflect the views of each other nor of the Ministry of Internal Affairs and Communications.

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[1] At the G7 ICT Ministerial meeting in Takamatsu in April 2016, Japan proposed the formulation of shared principles for AI R&D. A group of experts called the "Conference toward AI Network Society" have developed Draft AI R&D Guidelines for International Discussions, which were published by the Japanese Ministry of Internal Affairs and Communications in July 2017.
< https://www.soumu.go.jp/main_content/000507517.pdf >

[2] < https://www.soumu.go.jp/main_content/000658284.pdf >

Sincerely yours,

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<Attached>

- **Dr. Hiroshi Nakagawa**, RIKEN Center for Advanced Intelligence Project (AIP)
  "Comments about WHITE PAPER On Artificial Intelligence - A European approach to excellence and trust"

- **Dr. Toshiya JITSUZUMI**, Professor, Faculty of Policy Studies, Chuo University

- **Dr. Souichirou Kozuka**, Professor of law, Gakushuin University
  "Comments on the White Paper On Artificial Intelligence – A European approach to excellence and trust (COM (2020) 65 final) by the European Commission"

- **FUJITSU LIMITED** Position Paper as a member of the Conference toward AI Network Society of MIC to the European Commission AI White Paper Public Consultation

- **Hiroyuki Sanbe**, Partner, Attorney-at-Law, Atsumi & Sakai, and Guest Professor, Research Center on Ethical, Legal and Social Issues, Osaka University
  "Concerning the White Paper On Artificial Intelligence – A European approach to excellence and trust (COM (2020) 65 final) by the European Commission"

Comments about WHITE PAPER On Artificial Intelligence - A European approach to excellence and trust

Hiroshi Nakagawa
RIKEN Center for Advanced Intelligence Project (AIP)

1. Direction of comments

   I comprehend what fundamental principle EU authority has through this WHITE PAPER. This document, I think, is based on human rights such as privacy protection which is clearly stated in GDPR. The addressees of this WHITE PAPER are explicitly stated as the developer, the deployer (the person who uses an AI-equipped product or service) and potentially others (producer, distributor or importer, service provider, professional or private user). Taking this into account, I would like to pose the questions for effectiveness of this WHITE PAPER when these addressees read and want to comply it in their industrial activities.

2. "Ecosystem of trust" mentioned on page 3 is bit vague because the definition of "trust" is not given explicitly in this WHITE PAPER. The definition of trust is, at least to me, complicated, and consists of the following concepts: transparency, explainability, understandability of explanation about AI, accountability and robustness. Each of them is also very complex concept. Since "trust" plays, I think, the most important role throughout this WHITE PAPER, I would like to have a more concrete idea of "trust" even though the explanation about "trust" is bit longer.

3. On page 5, the way to better explainability is proposed as "Combining symbolic reasoning with deep neural networks (DNN in short) may help us improve explainability of AI outcomes". It is not that clear to me because the relation between symbolic reasoning and DNN is not explicitly defined. In my understanding, what is going on in the calculation process of DNN is not easily explained even we employ symbolic reasoning combined with DNN. Then, if you use symbolic reasoning as an approximation of DNN, it is better to write it explicitly, otherwise I do not figure out what this phrase means.

4. Action 4 says "*at least one digital innovation hub per Member State has a high degree of specialisation on AI".* There are, I think, member states which are strong in many specialization, states strong in one specialization and states having no strong

specialization. Then, is Action 4 is meant to promote every states in equally?

5. On top of page 9, the WHITE PAPER says “The Commission is convinced that international cooperation on AI matters must be based on an approach that promotes the respect of fundamental rights, including human dignity, pluralism, inclusion, non-discrimination and protection of privacy and personal data26 and it will strive to export its values across the world.” The current situation, however, is drastically changed and different before Covid-19 crisis. In every country, their first priority is keep their citizens safe and economics healthy. Will the above principle continue to work during and after Covid-19 crisis?

6. On the last line of page 9, “a clear European regulatory framework would build trust among consumers and businesses in AI, and therefore speed up the uptake of the technology”. A European regulatory framework is ideal for consumers’ trust. However, will there be possibility that developers would have a hard time to interpret the regulatory framework and even hesitate to develop their new AI application or AI based business that they could not decide these application or business complying the regulation, because AI technologies are changing extremely rapidly.

7. On page 13 to page 15, “B. POSSIBLE ADJUSTMENTS TO EXISTING EU LEGISLATIVE FRAMEWORK RELATING TO AI” concludes “the Commission concludes that – in addition to the possible adjustments to existing legislation – a new legislation specifically on AI may be needed in order to make the EU legal framework fit for the current and anticipated technological and commercial developments”. The development speed of current AI technologies, however, is too high for legislatives to catch up. Thus, the conclusion shown above is somewhat reasonable, but at the same time too authoritarian. The following attitude is, I think, much more workable from the viewpoint of developers: legislative against AI should not be proactive, rather should be reactive. This is really important and necessary for developers.

8. On page 17, “Second, the AI application in the sector in question is, in addition, used in such a manner that significant risks are likely to arise”. However, as stated on page 12, the arising risk is very hard to predict even by using AI technologies if I understand correctly. Then I propose to employ another AI which observes the target AI in real use, finds bad behaviors of the observed AI as early as possible and stops it before it starts to harm people.

9. On page 19, “the AI system enables is safe, in that it meets the standards set in the applicable EU safety rules” or on the same page, “***b) Keeping of records and data,*** This should not only facilitate supervision and enforcement; it may also increase the incentives for the economic operators concerned to take account at an early stage of the need to respect those rules”. The developers seem to think that what they are required is to obey the safety rules. Since as written on page 12, AI system’s behavior is hard to predict in real use, obeying the safety rules might not be enough to prevent harm caused by AI. Then, what is needed is to propose what kind of measures are to be applied if something harmful happens in real use, in EU’s legislative based way. I think, however, somethings harm to users caused by AI pose very bad effect to the company’s reputation and it would be a kind of social sanction to the company. This kind of social or consumers’ attitude toward the developers would contribute to improve the company’s attitude in developing AI products because the first priority of company is to make profit by consumers’ good reputation. This, I think, should be extremely important factor to build a safe AI.

10. On page 20, “Requirements ensuring that outcomes are reproducible. Requirements ensuring that AI systems can adequately deal with errors or inconsistencies during all life cycle phases”. These statements seem to be too harsh for AI products developers.

11. On page 21, three recommendations are written:
    1) the output of the AI system does not become effective unless it has been previously reviewed and validated by a human (e.g. the rejection of an application for social security benefits may be taken by a human only);
    My opinion: It is too harsh and unrealistic for AI products developers.

    2) the output of the AI system becomes immediately effective, but human intervention is ensured afterwards (e.g. the rejection of an application for a credit card may be processed by an AI system, but human review must be possible afterwards);
    My opinion: This reactive approach by human is very realistic.

    3) monitoring of the AI system while in operation and the ability to intervene in real time and deactivate

My opinion: I totally agree this. This is reasonable and a realistic way to manage AI system.

12. On page 22, “it is paramount that the requirements are applicable to all relevant economic operators providing AI-enabled products or services in the EU, regardless of whether they are established in the EU or not”. This statement is extremely tough for AI system producers outside of EU, meaning that very political statement.

13. On page 23, “Particular account should be taken of the possibility that certain AI systems evolve and learn from experience, which may require repeated assessments over the life-time of the AI systems in question”. This “repeated assessments” seem to be a very heavy burden for AI system developers.

14. “Standardised EU-wide benchmarks” described on page 24 is helpful for developers to develop AI products and really needed things.

Toshiya JITSUZUMI
Professor, Faculty of Policy Studies, Chuo University

Comment：

Concerning “e) Human oversight” (p.21), it is widely agreed among many stakeholders that human involvement in an AI system, or human-in-the-loop concept, is very important in order to ensure in an appropriateness of AI application. However, this idea should be treated as more like a code of conduct and should not be considered as a binding rule or regulation. At least, in order to maximize social welfare and help people enjoy AI dividends, the first paragraph in “e) Human oversight” should not be construed as that an appropriateness can be achieved only when an actual human involves in the AI process. Considering the potential of technological development in the future, we can have more expectation or confidence on the ability of AI. Thus, this paragraph should be altered by deleting “only” in the second sentence as follows: Human oversight helps ensuring that an AI system does not undermine human autonomy or cause other adverse effects. The objective of trustworthy, ethical and human-centric AI can be achieved by ensuring an appropriate involvement by human beings in relation to high-risk AI applications.

The reasons for this alteration are threefold.
Firstly, requiring human involvement in every AI system is just inefficient. Considering the rapid development of AI technology, requiring human-in-the-loop may damage the performance of the system and decrease the social welfare. Indeed, we already have AI systems that produce far better output than humans do. From the viewpoint of promoting the benefit of our society and of securing long-term efficiency, it is better to accept an AI-only system that requires no human involvement. Of course, as a minimum requirement, I strongly agree that it is essential to require such an AI system to yield no worse outcome than a human-only system does.
Secondly, considering the increasing expectation level of end-users who are getting accustomed to enjoying high quality of AI-based services in their everyday lives, it will soon become more and more difficult to find a person who is qualified enough to satisfy the “human-in-the-loop” requirement. It takes days or weeks at most to have better AI for a particular task, but it takes decades to educate people to be proficient in particular tasks. Requiring human-involvement in every AI system will face a shortage of human resources, and cause a serious delay of AI utilization in the society, resulting in welfare loss.

Thirdly, this paragraph may give a wrong message to AI developers. Under the current proposal, an AI system is always allowed to count on error-correction of human intervention; this will motivate AI developers to rationally allocate less-than-optimal resources to guarantee the appropriateness of the outcome. This is a typical "moral hazard" situation, which Schumpeter described in his 1942 book that "there is no more of a paradox in this than there is in saying that motorcars are traveling faster than they otherwise would because they are provided with brakes." In the first place, having human-in-the-loop may not always be the best recipe to guarantee human centricity in an AI system. Moreover, considering the power of algorithm design, it is beneficial to allow AI developers to investigate an alternative approach to attain the same objective. Thus, again, it is better to accept the case in which AI-only system can satisfy human-centricity requirement.

Comments on the *White Paper On Artificial Intelligence – A European approach to excellence and trust* (COM (2020) 65 final) by the European Commission

1. The overall concept of the White Paper to emphasise the trustworthiness of AI is supported as it is in line with the human-centered approach to AI, which is shared by many non-European jurisdictions, as indicated by the OECD Principles of Artificial Intelligence and Japan's instruments on AI, namely the Social Principles of Human-Centric AI, AI Research & Development Guidelines and AI Utilisation Guidelines. The well-conceived risk-based approach (**5.C.**, p.17) based on the demand that the regulatory intervention be kept proportionate to the risks of AI is also supported.

2. As regards the scope of the addressees of the proposed regulatory framework for high-risk AI systems, it should be noted that subjecting the non-European entities to the regulatory framework of the European Union (**5.E.**, p.22) could potentially give rise to conflicts with the local demands and rules in the territory where such entities are established. In this connection, it is essential that the European regulatory framework be founded on the universally accepted social values, such as the fundamental human rights, and not become discriminatory impediments for international collaboration in the development of AI systems. The continuous exchange of views among the like-minded governments to coordinate the recognition of universally accepted social values may be useful for this purpose.

3. In a similar vein to the remark 2. above, applying the conformity assessments to non-European entities (**5.F.**, p.23) should be carefully implemented in order not to hamper international collaboration in the development of AI systems as well as the construction of supply chain for AI systems across borders. Mutual recognition of designated bodies for conformity assessments in third countries (**5.H.**, p.25) is welcomed, and it is requested that such mutual recognition be sanctioned in a reasonable manner.

4. The proposed recognition of citizen's right to be informed when they are interacting with an AI system (**5.D.c)**, p.20) is understood as a very general principle. It being said, its application in practice should be carefully tuned to the reality, as many AI systems may rely on the judgment of AI in part, while introducing human judgments in part. A dialogue with the entities that develop and/or deploy AI systems will be needed.

5. The requirement for human oversight (**5.D.e)**, p.21) is supported, and the recognition that the manner of human oversight can vary depending on the situations is appreciated. Still, it should be

emphasised that excessive demand for human oversight could compromise the benefits expected from the deployment of AI, in particular when physical manoeuvre of the actuator is not involved (such as the pattern recognition by AI). In certain cases, appropriately designing the AI system and checking its proper functioning may suffice as human oversight.

(Souichirou Kozuka, Professor of law, Gakushuin University (Tokyo))

Public Consultation 'AI White Paper'
FUJITSU LIMITED Position Paper
as a member of the Conference toward AI Network Society of MIC

Fujitsu is one of the leading global ICT companies, and the largest in Japan, realizing digital transformation for our customers with our core technologies including AI. Fujitsu is committed to investing in R&D with Laboratories and Innovation Centers in Japan, Asia, Europe and US. Fujitsu employs over 130,000 in more than 100 countries including 20,000 people in in Europe.

Fujitsu supports Japanese government's Social Principles of Human-Centric AI the Government and the AI principles endorsed at the G20 Ministerial Meeting in Tsukuba last year. We share the same view with the European Commission that *lack of trust is a main factor holding back a broader uptake of AI* as mentioned on its AI White Paper, and support its aim toward the realization of trustworthy AI. On this paper, we discuss our viewpoints towards "AN ECOSYSTEM OF TRUST".

Concerns about the use of AI cannot be discussed from a single point of view, but **should be done based on a wide range of perspectives on ethics, quality assurance and legal responsibilities.** Ethical and quality assurance perspectives can be addressed through governance, management and technical measures. In particular, with regard to quality assurance, discussions on required quality varies by sector and application. In terms of legal responsibility, a common approach is required regardless of the sector such as compensation for any danger to life and damage to goods caused by AI.

We support the Commission's proposal to prioritize to **high-risk AI applications** following a risk-based approach to address concerns about the use of AI. The assessment of "high risk" should be based on the existing discussions and definitions of "risks" in international standardization organizations. For sectors, such as healthcare and mobility existing sector regulations should be reviewed rather than, developing new horizontal legislation for AI.

Remote biometrics identifications, which are mentioned as one of the potential high-risk AI applications, have already been regulated in the GDPR, and no new AI-specific regulations need to be developed. However, it would be useful to clarify the

conditions for the use of remote biometric identifications and the measures to be taken during operation by providing reader-friendly guidelines.

The requirements for high-risk AI applications proposed in the consultation paper of the White Paper (the quality of training data sets, the keeping of records and data, information on the purpose and the nature of AI system, robustness and accuracy of AI systems and human oversight) are crucial to the realization of trustworthy AI. However, it is very difficult, at least at the present, to technically guarantee these. We suggest applying these requirements at a reasonable level by a step-by-step approach based on a common understanding on a road map including timeframe and threshold of requirements agreed with experts. It is also expected that such a roadmap and threshold should not be unique to the EU, but that the Commission takes leadership for global coordination and harmonization. We recognize the White Paper frequently mentions "AI based on European rules and values" such at Chapter 4, Section H, International Aspects. AI is widely used in different cultures, rules, and values, on the premise that AI will be further deployed globally. We expect the EU as one of the most leading regions on AI in the world, to play a leading role in multidimensional values in AI.

A voluntary labeling scheme for non-high-risk AI applications is one of the useful options for increasing trust of AI in the market. In order for such labeling systems to be widely recognized and used in the market, it is crucial to be consistent with international standards and harmonized globally.

Lack of transparency and accountability of AI may give rise to the case that no one, such as AI developers and users, can be held criminal or civil liability. A loss compensation approach for it is needed. The scope of the PL Directive should not be expanded to impose liability on AI-based technologies beyond those incorporated into the hardware. Such change of scope leave developers of AI systems with responsibility for problems that they cannot predict nor have influence on during development processes. It could discourage business from developing and using AI systems. This issue cannot be solved immediately but will need to be further discussed with the balance between the benefits and risks of AI in society.

Conclusion

Fujitsu strongly encourages the European Commission to pursue an effective approach and strategy for the European Market able to play a leading role at global level. The alignment of key principles for AI and new technologies between Japanese Government and European Union is an important common ground for further cooperation at international level. Fujitsu is committed to keep on working closely with both the Japanese Government and the Commission by providing comments and contributions from our experts in order to bring the view of a Global Group with strong presence in both Regions with the ultimate intent of delivering benefit for our societies and citizens.

Concerning the White Paper On Artificial Intelligence – A European approach to excellence and trust (COM (2020) 65 final) by the European Commission

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I would like to take this opportunity to express my respect to those who are involved in preparation for the White Paper On Artificial Intelligence (the "White Paper"). As a member of the "Conference toward AI Network Society" (the "Conference") hosted by the Ministry of Internal Affairs and Communications of Japan, I hereby submit my comments on, or inquiries related to, the White Paper as follows.

Discussions with EU

Comment/Inquiry No. 1

If it is desirable for EU, we, as members of the "Conference toward AI Network Society" of the Ministry of Internal Affairs and Communications of Japan, are happy to have continuous discussions with EU concerning the White Paper. We believe that the discussions will be beneficial for both of EU and Japan (and, hopefully, for other third countries).

5. An Ecosystem of Trust: Regulatory Framework for AI

B. Possible Adjustments to Existing EU Legislative Framework Relating to AI

Comment/Inquiry No. 2

Given the descriptions of pages 14 and 15 of the White Paper, I personally feel that the descriptions heavily discuss certain laws, especially, "EU product safety legislation". Could you let us know whether other areas of law (e.g., law governing transactions and platforms, criminal law, competition law, law related to economic operators) will be discussed the next stage and thereafter, or whether you think that the EU product safety legislation is of the most important area than other areas of law and you will not cover said other areas of law?

C. Scope of a Future EU Regulatory Framework

Comment/Inquiry No. 3

On page 17, the White Paper states that "the new regulatory framework for AI should be effective to achieve its objectives while **not being excessively prescriptive so that it could create a disproportionate burden, especially for SMEs**." (emphasis added)

With respect to SMEs, there are some points which should be considered in relation to AI applications. On one hand, in some cases their AI applications may as effective and influential as ones of large companies. On the other hand, compared to large companies, some of SMEs have relatively immature structure for corporate governance and compliance, which may pose difficulties on how to cope with mandatory requirements. In this regard, we hope that considerations and discussions on SMEs will be continued, and we, as members of the Conference, are happy to discuss with EU in this respect.

Comment/Inquiry No. 4

In relation to the second criteria of high-risk AI applications described on page 17 of the White Paper, it states: "The assessment of the level of risk of a given use could be based on the impact on the affected parties. For instance, uses of AI applications that produce **legal or similarly significant effects** for the rights **of an individual or a company**; that pose risk of injury, death or significant material or immaterial damage; that **produce effects that cannot reasonably be avoided** by individuals or legal entities." (emphasis added)

(1) The phrase "produce legal or similarly significant effects" appears to be similar to "produces legal effects concerning him or her or similarly significantly affects him or her" provided for in Article 22, Paragraph 1 of the GDPR. There may be, however, differences between these two phrases because "a company" may be involved here and the risks are not limited to ones related to privacy and data protection. In that sense, it is appreciated if you could clarify the meaning of this phrase.

(2) Likewise, it is appreciated if you could clarify how it will be judged whether the AI applications produce effects "that cannot reasonably be avoided" because this is related to sharing of roles among stakeholders.

D. Types of Requirements

a) Training data

Comment/Inquiry No. 5

With respect to the description on page 19 of the White Paper which mentions "requirements ensuring that AI systems are trained on **data sets that are sufficiently broad and cover all relevant scenarios needed to avoid dangerous situations**" (emphasis added), there will be issues of how economic operators may obtain data sets that are "sufficiently broad" and how economic operators may expect and cover "all relevant scenarios". I hope that these points will be clarified. If you have good examples explaining these phrases "sufficiently broad" and "all relevant scenarios", please let us know.

E. Addressees

Comment/Inquiry No. 6

On page 22 of the White Paper, it is stated that "First, there is the question how obligations are to be distributed among the economic operators involved…It is the Commission's view that, **in a future regulatory framework, each obligation should be addressed to the actor(s) who is (are) best placed to address any potential risks**." (emphasis added)

Suppose there are multiple actors who are best placed to address potential risks, some kind of criteria will be necessary to determine how roles are shared so as to address potential risks. I hope that this point will be clarified, and am interested in whether this point will be discussed in the process of codifying EU law which is suggested in the White Paper.