FONDAZIONE BRUNO KESSLER
ISR CENTRO PER LE SCIENZE RELIGIOSE

# Engaging Religious and Belief Actors in the European Approach to AI

## Public Consultation on the European Commission's White Paper

## "On Artificial Intelligence - A European Approach to Excellence and Trust"

Response of the Center for Religious Studies of Fondazione Bruno Kessler (FBK-ISR)

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The present paper was drafted in response to the public consultation on the "White Paper on Artificial Intelligence - A European approach to excellence and trust" launched by the European Commission on 19 February 2020. It complements FBK-ISR's responses to the questionnaire.

Drawing upon FBK-ISR's work on religion and innovation, this document has been prepared by Margherita Galassini, Pasquale Annicchino, Valeria Fabretti and Boris Rähme, with contributions from Matteo Corsalini, Lucia Galvagni and Marco Guglielmi, and under the supervision of Marco Ventura, Director of the Center. Significant contributions were also provided by the Center for Information and Communication Technology at FBK, in particular by the Director of the Center, Paolo Traverso, by Marco Pistore and by Oliviero Stock.

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# 1. Introduction

## 1.1 Religion and Innovation at FBK

Founded in 1975, the Center for Religious Studies (ISR) is a non faith-based research center of Fondazione Bruno Kessler (FBK). Building on more than 40 years' experience in research and development in the field of Artificial Intelligence (AI), FBK's 2018-2027 Strategy is guided by the ideas of human-centric Artificial Intelligence and mainstreaming of social sciences and humanities (SSH) research into AI development and governance. FBK-ISR contributes to the research and innovation activities of FBK with its Strategic Plan 2019-2021[1] and its mission statement on religion and innovation, which was adopted in 2016 and articulated in our 2019 Position Paper *Religion and Innovation: Calibrating Research Approaches and Suggesting Strategies for a Fruitful Interaction*[2]. In this framework, the Center aims at advancing the critical understanding of the multi-faceted relationship between religion and innovation in contemporary societies, and at improving the interaction among religion and social and cultural innovation as well as innovation in science and technology.

## 1.2 General Comments

We strongly support the European Commission's twin objective of achieving an "ecosystem of excellence", by mobilizing resources in order to foster research and promote the adoption of services based on AI, and of creating an "ecosystem of trust", by setting a regulatory framework for AI that ensures the protection of fundamental rights and consumers' rights. In what follows we comment on specific policy options set out in the White Paper, drawing upon our work on the interaction between religion and innovation. We focus on two dimensions of the relation between religion and innovation in AI: *i) religious or belief communities as agents in AI development*; *ii) religious or belief communities as protagonists of AI-regulation, both as agents and patients of protection*.

## 1.3 Religion and Belief as Key Factors in Society

Our understanding of freedom of religion or belief - and, consequently, of religious or belief communities - takes into account theistic, non-theistic and atheistic beliefs. In this regard we adopt the definition of freedom of religion or belief which is at work in the following statements made by the Office for Democratic Institutions and Human Rights (ODIHR) of the Organization for Security and Co-operation in Europe (OSCE): "There is a great diversity of religions and beliefs. The freedom of religion or belief is therefore not limited in its application to traditional religions and beliefs or to religions and beliefs with institutional characteristics or practices analogous to those traditional views. The freedom of religion or belief protects theistic, non-theistic and atheistic beliefs, as well as

[1] https://isr.fbk.eu/wp-content/uploads/2020/03/2020_02_04_Strategic_Plan_ISR_prima-parte-2.pdf.

[2] https://isr.fbk.eu/wp-content/uploads/2019/03/Position-Paper.pdf.

the right not to profess any religion or belief".[3] This understanding of freedom of religion or belief is coherent with the acknowledgment under Article 17 TFEU of the "identity and [...] specific contribution" of "churches and religious associations" as well as "philosophical and non-confessional organisations". With both categories of actors, the Union is committed to maintaining "an open, transparent and regular dialogue"[4].

As we have learnt from our participation in the G20 Interfaith Forum, religious or belief actors have a great responsibility towards sustainable development[5]. A comprehensive understanding of the agency of religious or belief communities must also take into account the cultural, political and economic influence that they exert on the social fabric. That is, religious or belief communities are to be viewed as actors contributing to the collective endeavor towards sustainable growth, societal development and innovation[6], as demonstrated by EU institutions' investment in the establishment of sustained cooperation[7] with representatives of religious or belief communities on issues of strategic importance for EU governance, including EU foreign policy[8] and ethical AI regulation[9].

### 1.4 Religious or Belief Communities as Competent Interlocutors on Digital Innovation

The perspective and experience of religious or belief communities with regard to innovation should be taken into account in the framing of European policies on AI. Religious or belief communities are often portrayed as incapable or unwilling to innovate, and therefore to contribute to so-

> *Scientific enquiry aims at the understanding of all that exists and, therefore, of God. As a computer scientist, the moment I try to gain a deeper understanding of what surrounds me, of what I am made of, is the moment I begin to gather a more profound knowledge of my Creator, of my belief.*
>
> (Massimo Tistarelli, University of Sassari)

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[3] OSCE/ODHIR 2014, "Guidelines on the Legal Personality of Religious or Belief Communities", pp. 9-10, at https://www.osce.org/odihr/139046.

[4] See the European Parliament's dialogue with religious and non-confessional organizations established by Article 17 of the Treaty on the Functioning of the EU introduced by the Treaty of Lisbon https://www.europarl.europa.eu/at-your-service/en/be-heard/religious-and-non-confessional-dialogue.

[5] See the website of the G20 Interfaith Forum at https://www.g20interfaith.org.

[6] Referring to FBK-ISR's 2019 Position Paper, the British Council has conducted research on UK and US citizens' perspectives on the relation between religious freedoms and innovation. See British Council 2019, "US and UK perspectives on religion and belief", p. 22 at https://www.britishcouncil.us/sites/default/files/usukreligionbeliefreport_1.pdf.

[7] See Article 17 TFEU (footnote 4).

[8] See the Global Exchange of Religion in Society at https://ec.europa.eu/fpi/sites/fpi/files/annex_22_global_exchange_on_religion_in_society.pdf. Also see the function of Special Envoy for the promotion of freedom of religion or belief outside the EU created by the former President of the Commission Jean-Claude Juncker and appointed to Ján Figel (2016-2019 mandate) at https://www.janfigel.eu/aboutjf. On the struggle for consistency on freedom of religion or belief within and outside the EU, see Ventura 2013, "Towards a European Consistency in Freedom of Religion or Belief" at http://www.o-re-la.org/index.php/analyses/item/654-towards-a-european-consistency-in-freedom-of-religion-or-belief?tmpl=component&print=1.

[9] See the European Parliament's dialogue with religious and non-confessional organizations, 19 March 2018, Dialogue seminar on "Artificial Intelligence: Ethical Concerns" at https://www.europarl.europa.eu/at-your-service/en/be-heard/religious-and-non-confessional-dialogue/events.

cial innovation and to innovation in science and technology. Contrary to this stereotypical representation, the work at our Center shows that there are various examples of innovations, technological and otherwise, that have been adopted, shaped and developed by religious or belief communities, including social media, digital games, virtual reality technologies and smart community applications. We also acknowledge the impact of scientists and entrepreneurs whose work on digital transformation and AI is guided by religion or belief.

A more nuanced and context-sensitive approach to diverse religions or beliefs in society, as well as the acknowledgment of religious or belief communities as actual and potential participants in, and contributors to, innovation processes would clear the way for rightsizing (neither under- nor over-emphasizing) attention to different religious or belief perspectives, experiences and concerns into AI policy debates[10]. We acknowledge that many of the issues that may arise from the use of AI technologies in relation to religion and belief – regarding both an ecosystem of excellence and an ecosystem of trust – are not in principle different from issues arising in other social or cultural contexts. At the same time, it is precisely because religion and belief are woven into the social fabric, and constantly interacting with its secular aspects, that we believe that investigating the implications of AI from the perspective of religious or belief communities may help understand the role and impact of AI across the wider society.

[10] See Recommendation 1, "avoid a friend or foe approach", and Recommendation 3, "value diversity and freedom of religion or belief", of our Position Paper in the Annex below.

# 2. Our Contribution

## 2.1 An Ecosystem of Excellence

### 2.1.1 Action 2 of the White Paper: Focusing the Efforts of the Research and Innovation Community

The Commission proposes to strengthen synergies and networks between European research centers on AI in order to improve excellence by aligning their knowledge, skills and capabilities as well as attracting the best researchers. The goal is to overcome the current fragmented landscape of centers so as to increase the competitiveness of European research hubs on AI globally.

We agree with this proposal and, in line with Recommendation 6 of our Position Paper[11], suggest the creation and the strengthening of multi- and interdisciplinary European research networks that bring together experts in the fields of humanities, social sciences, engineering and science. Consistently with the aims of Horizon 2020 and the upcoming Horizon Europe framework program, we take the mainstreaming of the social sciences and humanities (SSH) into EU Research & Innovation (R&I) activities to be an essential element for the generation of knowledge and expertise that are truly responsive to transversal societal challenges and opportunities. This encompasses a wide range of disciplines, from political science and economics, to law and ethics, to anthropology, sociology and psychology, to cultural and religious studies. At the same time, however, it must be emphasized that the successful implementation of such a multi- and, ideally, interdisciplinary approach to creating an ecosystem of AI excellence constitutes a great challenge to all sides involved. In particular, it questions the traditional self-understanding of SSH researchers and the compartmentalization of knowledge and competences along traditional disciplinary lines which is still dominant in EU countries. Meeting this challenge will require scientists, researchers and scholars to rethink their societal roles and responsibilities at the European and, ultimately, the global level. This may also require fundamental restructuring of research organizations. In an attempt to broaden the spectrum of interdisciplinary collaborations, opportunities should be sought to enter into dialogue with research teams that are emerging from, or connected with, religious or belief traditions, reflecting the activism of religious or belief communities, and of individual believers and non-believers, with respect to AI research[12].

> *Religious actors cannot remain outside history and they will want to take part in this competition.*
>
> (Khalid Hajji, Brussels Forum for Cultural and Religious Dialogue)

Scientific and technological innovation often occurs in response to societal needs and challenges. Vice versa, social and cultural innovation processes may be triggered by the introduction of novel

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11 See Recommendation 6, "pursue multi- and interdisciplinary research and combine qualitative methodologies", of our Position Paper in the Annex below.

12 See the Rome Call for AI Ethics promoted and signed by the Pontifical Academy for Life, the Italian government, the Food and Agriculture Organization of the United Nations, Microsoft and IBM at https://romecall.org/romecall2020/. This unprecedented document approved by the Holy See shows the potential for collaboration between religious organizations and multinational technology companies.

technologies and the diffusion of new scientific findings. Innovation processes in these different areas are not separable from each other but go together. This is why the Commission should see technological innovation, including the development of AI-based solutions, as inextricably linked to the social contexts in which it is envisaged and adopted. AI innovations gain their social, political and economic significance within the social fabric - where the influence of and on religious or belief actors is not to be underestimated.[13]

### 2.1.2 Action 3 of the White Paper: Skills

The Commission proposes to increase awareness of AI at all levels of education. This would enable citizens to gain more knowledge on the functioning of AI technologies and their implications, allowing them to make informed decisions on issues that will be increasingly affected by AI. Moreover, the Commission aims to attract the best experts and to offer world-leading masters programs in AI.

We endorse these proposals and, in line with the Commission's emphasis on the importance of collaborating with social partners for the advancement of a human-centric approach to AI, we recommend the involvement of a wide range of actors, including representatives and members of religious or belief communities, in a sustained effort to develop the cross-cutting knowledge and skills required to be active participants in the AI-led transformation. According to the logic of the EU-sponsored Global Exchange on Religion in Society[14], we take the networking and dialogue between different civil society actors, including religious practitioners, to be key in promoting new skills and reciprocal learning. Attention should be paid to the inclusion of minorities and to the internal diversity of religious or belief communities.

> *The use of trustworthy digital technologies in religious education can help alleviate fears and worries that religious believers may have with regard to AI.*
>
> (Naftali Rothenberg, Van Leer Jerusalem Institute)

More specifically, on the one hand, we advocate for an enhancement of AI developers' knowledge of religious or belief communities' perspectives and social conditions, where their development work can be expected to have an impact on such communities. As the Directorate-General for International Cooperation and Development acknowledged with its series of "Agora on Religion and Development" talks, an investment in religious literacy is conducive to the creation of a space for learning and deliberation on the nexus between societal development and religion[15]. On the other hand, we suggest promoting citizens' and religious or belief groups' information and training concerning the development, use and implications of AI technologies. The engagement in digital education of religious or belief groups, which are internally diverse in terms of social and demographic composition, also represents an effective way to help bridge the digital divide. Supporting an alliance between literacy on religion or belief and literacy on AI may thus prove to be fundamental in framing

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13 See Recommendation 9, "think of scientific, technological, social and cultural innovation as interrelated processes", of our Position Paper in the Annex below.

14 See footnote 8.

15 See the initiative on religious literacy organized by the Directorate-General for International Cooperation and Development's Unit on Gender Equality, Human Rights and Democratic Governance (DEVCO B1) at https://europa.eu/capacity4dev/articles/religious-literacy-engaging-faith-based-actors. Collaborative action for religious literacy in Europe is a key goal of the European Academy of Religion, at https://www.europeanacademyofreligion.org.

the renewed European investment in education and training. This alliance can benefit from the active engagement of religious or belief communities and AI developers in a dialogical relationship, bridging the gap between society and EU Research & Innovation (R&I) policies.

## 2.2 An Ecosystem of Trust

The Commission acknowledges that trustworthiness, based on compliance with fundamental rights and freedoms, is a precondition for the societally beneficial development and uptake of AI technologies. The willingness of (members of) religious or belief communities to employ AI-driven systems, and to contribute to research and innovation, crucially depends on their informed trust. It must be ensured that such systems do not impinge upon believers' and non-believers' fundamental rights to freedom of religion or belief, to privacy and personal data protection, and to non-discrimination. Otherwise they will be less prepared to contribute to the collective endeavor of technological development. In this regard we consider the active engagement of religious or belief communities in societally relevant innovation processes, including consultations on the European regulatory framework for AI, to be an effective policy tool for advancing freedom of religion or belief for all[16].

The following two subsections address a series of implications of AI-driven systems which deserve particular attention in that they are potentially harmful to the fundamental rights and freedoms of believers and non-believers alike.

### 2.2.1 The Fundamental Right to Privacy and Data Protection

> *Algorithms and surveillance systems are problematic as they can guess religious believers' faith and religious convictions from their use of communication systems, thus hindering believers' freedom of religion.*
>
> (Sören Lenz, CEC/KEK, Conference of European Churches)

The Commission highlights the increasing risks for personal data protection arising from actual and potential maleficent uses of AI-based systems. By analyzing large amounts of data and uncovering statistical correlations and patterns among them, AI may be illegitimately used to profile people. Recent research demonstrates, for instance, that it is possible to collect digital footprints in order to predict individuals' demographic attributes, including religious affiliation, by analyzing meta-data (e.g., number of posts on, and frequency of logins to, social media platforms), network data, the contents of social media posts, and so on[17]. Such information may be used for different illegitimate purposes, including bias-enforcing political advertizing and aggressive commercial "nudging".

In particular, we wish to draw attention to the risks that members of religious or belief communities face with regard to the misuse of their digital traces as they enter places of worship. This regards

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16 Petito, Berry, Mancinelli 2018, "Interreligious Engagement Strategies: A Policy Tool to Advance Freedom of Religion or Belief", University of Sussex, at http://forbforeignpolicy.net/wp-content/uploads/2018/12/FoRBFPI-Policy-Report.pdf.

17 For a review of existing research on this topic see Hinds and Joinson 2018, "What Demographic Attributes Do Our Digital Footprints Reveal? A Systematic Review" at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6261568/.

both virtual venues of worship or cyberchurches[18] and - due to the ubiquity of personal mobile devices and the geographical tracking possibilities they afford - traditional places of worship such as mosques, synagogues, churches or temples. In this regard, it is important to note that AI technologies can potentially be put to illegitimate use by different actors, including religious or belief communities and institutions themselves. Indeed, EU data privacy rules apply also to the latter, as controllers for the processing of personal data carried out in the context of their activities[19]. Religious or belief communities and their members are thus to be considered both as patients and agents of the fundamental rights protections afforded by extant and future European AI regulations.

### 2.2.2 The Fundamental Right to Non-Discrimination

There is ample evidence that some countries deploy digital surveillance systems based on remote biometric identification in order to target religious or belief communities. In the Xinjiang province, the Chinese government is using facial recognition applications to repress the Uighurs and members of other Muslim ethnic groups. The surveillance program monitors citizens' movements and activities and collects their personal data. The information is then stored in a mass surveillance database[20]. It is crucial that similar violations of privacy and discriminatory uses of remote biometric systems be rigorously proscribed by the emerging EU regulatory framework and condemned in EU External Action initiatives.

A closely related issue concerns the potentially discriminatory effects of AI systems on social minorities, including religious or belief ones. As the Council of Europe acknowledges, "if algorithmic decision-making systems are based on previous human decisions, it is likely that the same biases which potentially undermine the human decision-making are replicated and multiplied in the algorithmic decision-making systems, only that they are more difficult to identify and correct"[21]. The Commission points out that there is evidence of racial and gender bias in certain AI algorithms employed to predict criminal recidivism. Similar discriminations may occur with regard to religious minorities. We therefore urge the implementation of rigorous requirements concerning the evaluation of the data sets used to train algorithms. It is of utmost importance to ensure that AI technologies do not reinforce prejudice, persecution and stigmatization, but rather support their prevention and contrasting[22].

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18 For examples of cyberchurches see Life.Church or LifePoint Church.

19 See Court of Justice EU, Case C-25/17 *Jehovan Todistajat* EU:C:2018:551 at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62017CJ0025&from=EN.

20 Buckley and Mozur 2019, "How China Uses High-Tech Surveillance to Subdue Minorities", The New York Times, May 22, at https://www.nytimes.com/2019/05/22/world/asia/china-surveillance-xinjiang.html. This surveillance program is implemented alongside the creation of re-education camps. For a study of security spending in Xinjiang see Adrian Zenz, 2018 "Xinjiang's Re-Education and Securitization Campaign: Evidence from Domestic Security Budgets" at https://jamestown.org/program/xinjiangs-re-education-and-securitization-campaign-evidence-from-domestic-security-budgets/.

21 See Council of Europe 2018, "Algorithms and Human Rights. Study on the human dimensions of automated data processing techniques and possible regulatory implications", p. 28, at https://edoc.coe.int/en/internet/7589-algorithms-and-human-rights-study-on-the-human-rights-dimensions-of-automated-data-processing-techniques-and-possible-regulatory-implications.html..

22 See the Hatemeter project in the Annex below.

# 3. Conclusion

In the face of the global AI race, the overall goal of the Commission is to build a strong European approach to AI that is able to combine competitiveness with ethics. With respect to both dimensions, this paper has emphasized the added value of taking religion or belief as a key factor in the framing of European policies on AI. With the aim to promote an approach to AI that is attuned to societal needs, opportunities and challenges, we have further stressed that religious or belief communities are actors in processes of innovation with a political, economic and social significance. Since technological innovation may be viewed as gaining new purpose and significance in each of its uptakes and applications, we deemed it relevant to highlight the role of religious or belief communities as innovative and responsible developers and users of AI-driven systems.

# 4. Acknowledgments

The present paper has benefited from discussions with several experts and institutions, from partnerships with academia, non-profits, for-profits and other organizations[23], and from exchanges with the speakers of our upcoming webinar series "Artificial Intelligence and Religion - AIR2020/21".[24] In particular, between April and June 2020 we discussed preliminary versions of the present response paper with the experts listed below. We take full responsibility for the views expressed in this paper, which do not necessarily reflect the views of our interlocutors.

- Rachel Bayani (Bahá'í International Community, Brussels Office)
- Paolo Benanti (Pontifical Gregorian University)
- Stefano Davide Bettera (European Buddhist Union)
- Alessandro Calcagno (COMECE, Commission of the Episcopates of the European Union, Secretariat)
- Marco Caproni (Christian Congregation of Jehovah's Witnesses, Italian Press Office)
- Vincent Depaigne (European Commission, Directorate-General for Justice and Consumers)
- Arie de Pater (European Evangelical Alliance, Brussels Office)
- Nura Detweiler (Bahá'í International Community, Brussels Office)
- Francesco Di Lillo (European Union Office of The Church of Jesus Christ of Latter-day Saints)
- Jonathan Ebsworth (TechDotPeople)
- Ron Eichhorn (European Buddhist Union)
- Eike Gräf (European Commission, Directorate-General for Justice and Consumers)
- Brian Grim (Religious Freedom & Business Foundation)
- Khalid Hajji (Brussels Forum for Cultural and Religious Dialogue)
- Friederike Ladenburger (COMECE, Commission of the Episcopates of the European Union, Secretariat)
- Sören Lenz (CEC/KEK, Conference of European Churches, Thematic group on Science, New Technologies and Christian Ethics)
- Christopher Lim (TheoTech)
- Kishan Manocha (Organization for Security and Co-operation in Europe Office for Democratic Institutions and Human Rights)
- Julia Mozer (CEJI - A Jewish Contribution to an Inclusive Europe)
- Irina Orssich (European Commission, Directorate-General for Communications, Networks, Content and Technology)
- Naftali Rothenberg (Van Leer Jerusalem Institute)
- Eric Roux (European Office of the Church of Scientology for Public Affairs and Human Rights)

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23 For a list of FBK-ISR's partners see our Strategic Plan (footnote 1), pp. 30-32.

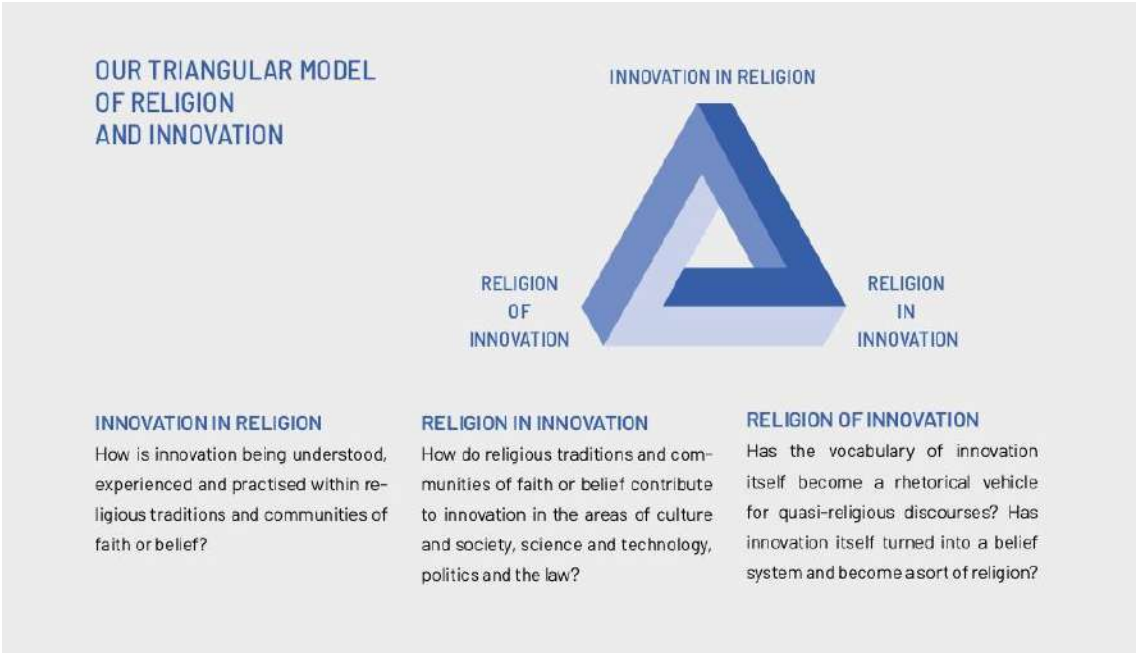
24 http://air2020.fbk.eu. The organization of the AIR2020\21 webinar series has been ongoing since June 2019.

- Patricia Shaw (Homo Responsiblis Initiative)
- Jeff Simon (Bahá'í International Community, Brussels Office)
- Massimo Tistarelli (University of Sassari)
- Julija Vidovic (CEC/KEK, Conference of European Churches, Thematic group on Science, New Technologies and Christian Ethics)
- Mikolaj Wrzecionkowski (Organization for Security and Co-operation in Europe Office for Democratic Institutions and Human Rights)
- Konstantinos Zormpas (CEC/KEK, Conference of European Churches, Thematic group on Science, New Technologies and Christian Ethics)

# Annex

This annex presents a series of excerpts from FBK-ISR's Position Paper which delineate our framework for action research on religion and innovation and provides the background for the present discussion on AI technology[25].

Our research on the multi-faceted relationship between innovation and religion relies on a broad understanding of both dimensions. We conceive of the former as covering social and cultural innovation as well as innovation in science and technology; we regard the latter as a social and cultural construct, constituted by a dynamic and variable combination of different elements and their roles in the lives of individuals and groups - including practices, beliefs, precepts, community bonds, habits, attitudes, and imageries, as well as institutions and doctrines. Moreover, we consider the religious sphere to be characterized by a multi-dimensional diversity: diversity between religions, diversity within specific religions, and diversity between religious and non-religious forms of belief and practical commitment. Accordingly, our work on religious diversity and on freedom of religion or belief[26] takes into account theistic, non-theistic and atheistic beliefs[27]. Within this theoretical framework, we focus on three dimensions of the relations between religion and AI technologies by drawing on the general triangular model of religion and innovation laid out in our Position Paper.




25 See the FBK-ISR 2019 Position Paper (footnote 2).

26 See the European Parliament Intergroup's Annual Report 2017 on FoRB&RT, which relies on research conducted by a consortium comprising FBK-ISR, the University of Luxembourg and the University of Cambridge, at http://www.religious-freedom.eu/wp-content/uploads/2018/09/RS_report_v6_digital.pdf.

27 See footnote 3.

The identification of the three dimensions of the relation between religion and AI technology allows us to pinpoint the corresponding questions for action research. So far, research on the interactions between religion and digital technologies has mainly focused on social media and digital games[28]. Given the multitude of different digital technologies that today shape the daily life of people, we deem it important to extend the research scope - so as to include, for instance, the interactions of religion with mixed and virtual reality technologies, smart community applications and other innovative AI-based solutions. In this vein, FBK has been, and continues to be, involved in various interdisciplinary research and innovation projects on the intersection of religion and digital technologies.

### FBK ACTION RESEARCH PROJECTS ON THE INTERSECTION OF RELIGION AND DIGITAL TECHNOLOGIES

The FBK-ISR/FBK-ICT project **Religion2Go**[29], concluded in 2019, conducted ethnographic studies of the attitudes of representatives of different faith communities towards digital 3D replicas of religiously significant objects and spaces. It used the smart-phone based virtualization tool developed by the FBK-ICT led H2020 project REPLICATE[30] to explore the potentials of shared virtualized religious objects in bridging geographical distances between the members of dispersed religious communities and in responding to spiritual needs.

The project **Hatemeter**[31] (REC Programme 2014-2020, European Commission – Directorate-General Justice and Consumers), which involved FBK-ICT as a partner and was concluded in 2020, developed an ICT tool that automatically monitors and analyzes Internet and social media data on the phenomenon of Islamophobia, producing computer-assisted responses to support counter-narratives and awareness raising campaigns. Systematizing, augmenting and sharing knowledge on Anti-Muslim hatred online, the project has provided tools for increasing the efficiency and effectiveness of NGO/CSOs in preventing and tackling Islamophobia at EU level.

The FBK-ISR project **DICO DI NO (PER DIRE DI SI)**[32] (funded by the Foundation Intercultura), realized in 2018/2019 in collaboration with FBK's Research and Innovation for Schools Unit and the Smart Cities and Communities Area of FBK-ICT, involved Italian high school students with the aim of promoting reflection on prejudices, discrimination and verbal violence against religious minorities. Tools for the automatic detection of *hate speech* online and for computer mediated construction of counter-narratives were used in school laboratories with the aims of: *i)* sharing correct information about religious diversity and the situation of minorities; *ii)* strengthening the students' analytical and critical skills with regard to intolerant/violent speech acts and media use; *iii)* developing their argumentative skills useful for the deconstruction of hate speech.

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28 See Campbell (ed.) 2013, *Digital Religion: Understanding Religious Practice in New Media Worlds*, Routledge; Šisler, Radde-Antweiler, Zeiler (eds) 2017, *Methods for Studying Video Games and Religion*, Routledge.

29 https://magazine.fbk.eu/en/news/religion-go-religion-virtual-world/.

30 http://www.replicate3d.eu.

31 http://hatemeter.eu.

32 https://isr.fbk.eu/wp-content/uploads/2017/10/Project-Report-Dico-Di-No_final.pdf.

The project **Co-narrating a Conflict: An Interactive Tabletop to Facilitate Attitudinal Shifts**[33] (financed by the Italian Fund for Investment in Basic Research - FIRB, by the Autonomous Province of Trento, and by the Israel Science Foundation) was a collaboration between the Caesarea Rothschild Institute at the University of Haifa and FBK-ICT in Trento. The project has designed a multi-user tabletop interface to support reconciliation in the context of a peace education program involving Israeli and Palestinian teenagers.

The Jean Monnet project **BeSEC**[34] (European Commission - EACEA), coordinated by the University of Siena and to be concluded in June 2020, supported activities of information and dissemination of knowledge and skills with regard to the subject of security and its role in the process of European integration. The project included a key focus on data flows in the EU and the General Data Protection Regulation (DGPR).

[33] See Zancanaro, Stock, Eisikovits, Koren and Weiss 2012, "Co-narrating a Conflict: An Interactive Tabletop to Facilitate Attitudinal Shifts", *ACM Transactions on Computer-Human Interaction,* 19(3) at https://i3.fbk.eu/sites/i3.fbk.eu/files/zancanaro_tochi12.pdf.

[34] http://besec.wp.unisi.it/the-jean-monnet-action/.

## RECOMMENDATIONS FOR RESEARCH AND ACTION IN RELIGION AND INNOVATION

Based on the considerations developed in our 2019 Position Paper, we propose the following eleven recommendations as guidelines for research in religion and innovation and for societal actors in their attempts to strengthen the interaction between religion and innovation:

## 6

### Pursue multi- and interdisciplinary research and combine qualitative and quantitative methodologies.

Given the complexity of the interactions between religion and innovation, action research in this field should experiment multi- and, ideally, interdisciplinary approaches that combine qualitative value research and quantitative impact analysis.

## 7

### Engage with innovation in politics and the law.

In addition to social, cultural, scientific, and technological innovation, the scope of action research in religion and innovation may be fruitfully broadened to include less explored areas, such as innovation in politics and the law. In this field, it is promising to study and experiment how the diversification of religious identities, practices, and strategies is questioning consolidated models of democracy, the public sphere, human rights, minority rights, collective vs. individual rights, equality, recognition, and common vs. private goods.

## 8

### Engage with different value systems and the ways in which they are challenged by scientific and technological novelties.

Research and action in religion and innovation should explore the argumentative potentials inherent in the value systems proposed by religious traditions and secular ethics and bring them to bear on critical debates over the normative challenges arising from scientific, technological, social and cultural innovations.

## 9

### Think of scientific, technological, social and cultural innovation as interrelated processes.

Scientific and technological innovation may occur in response to societal needs and challenges. Vice versa, social and cultural innovation processes may be triggered by the introduction of novel technologies and the diffusion of new scientific findings. Innovation processes in these different areas are not separable from each other but go together.

## 10

### Employ an inclusive and dialogical approach in the identification of problems and challenges.

In individuating societal challenges, action research in religion and innovation should seek a sustained dialogue with innovation activists and diverse religious communities. Such a participatory approach may contribute to improving the interaction between religion and innovation, and to creating novel spaces for freedom and creativity.

## 11

### Listen carefully to opponents of innovation and to opponents of religion.

Action research in religion and innovation should be sensitive to the arguments pro and con innovation attempts and take into account what opponents of change and innovation have to say in support of their positions, without discarding opposition and resistance to innovation as irrational from the outset. The same holds with respect to the arguments of opponents of religion. In this way, research and action in religion and innovation can foster an attitude towards the prevalent "pro-innovation bias" that is at the same time critical and constructive.