A new brain

Many call Artificial Intelligence (AI) the new revolution, a radical change that will involve all the companies with countless innovations and efficiency in processes. In addition to all the innovation promised by this new paradigm, there could also be some risks such as limiting personal freedoms, manipulating public opinion and discrimination. The new frontier of journalism is called Knowhere News, an American startup that promises neutral information; here artificial intelligence systems and machine learning are combined to deliver the only facts to the readers. Algorithms are going to regulate news, cars, factories, networks and medicine. But what are the dark sides, the risks of all this innovation? Certainly, computer security will play an increasingly central role in risk mitigation; knowing how to manage this will be key to business success. Nick Bostrom, in his controversial book “The Superintelligence”, underlines how it is necessary to develop, right from the start, tactics and strategies to prevent superintelligence from bringing serious threats to mankind. Bostrom proposes some solutions, and in particular one of these would consist in assigning, to these artificial agents, not only tasks, but also real values, insisting on how governments should initiate a true ethical reflection on the uses and governance of this technology.

For example, we know that due to the fact that all these AI rely on huge amount of data in order to learn, privacy impact needs to be evaluated. AI technologies could be vulnerable to serious issues with regards of data breach and identity theft. We have to push data scientists to develop AI without compromising users' data security and confidentiality. And GDPR was going in that direction setting up a framework that is ensuring the protection of personal data. In this context, the European Commission has published guidelines with reference to the design of reliable artificial intelligence systems, that at the moment are not mandatory. These guidelines are not a generalist type of code but contains numerous indications that can be used in practice in the development of intelligent systems. The guidelines include a check list that allows you to verify, already in the design phase, compliance with the recommendations, a sort of ethics by design.

The European Community document does not only recommend the robustness and security of the systems, but focuses a lot on the centrality of the human being in the relationship with the AI. The principles that must be combined are dignity and freedom, especially when algorithms come into play. The document highlights how the autonomy of people must prevail over the autonomy of machines and must be guaranteed a power of supervision by men. The evolution of these systems must go towards transparent and clearly traceable forms of AI, guaranteeing in this way a sustainable development of which the new industry will be able to benefit by bringing inclusive innovation and well-being to the human race.

Enjoy the lecture...

Nicola Sotira
General Manager GCSEC

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**Europe’s Largest Blockchain Conference and Exhibition**

Location: Amsterdam, NLD
Date: June 19-20, 2019
https://blockchain-expo.com/europe/

Europe’s largest Blockchain Conference and Exhibition focuses on the future of enterprise technology, with two days of top-level content from leading brands, embracing and developing cutting edge blockchain technologies. Returning to RAI Amsterdam on June 19-20, the Blockchain event is co-located with the IoT Tech Expo, AI & Big Data Expo and Cyber Security & Cloud Expo so you can explore the convergence of these technologies in one place. The Blockchain conference agenda will present a series of expert keynotes, interactive panel discussions and solution-based case studies. All exploring the key industries that are set to be disrupted the most by this new technology, including: legal sectors, retail, financial services, healthcare, insurance, energy, music, government, real estate and more.

**IoT Tech Expo Europe 2019**

Location: Amsterdam, NLD
Date: June 19-20, 2019
https://www.iottechexpo.com/europe/

Europe’s leading IoT Conference Series; the IoT Tech Expo Europe will return to the RAI Amsterdam on the 19-20 June 2019 to bring together key industries for 2 days of top level content and discussion. Exploring the latest innovations within the Internet of Things and covering the impact it has on many industries including Manufacturing, Transport, Supply Chain, Insurance, Logistics, Government, Energy and Automotive, this conference is not to be missed. Key topics examined include: edge computing, IoT connectivity solutions, industry 4.0 & 5.0, facilities management and buildings automation, smart meter & smart grids, building the connected supply chain, process automation, connected fleet, smart city infrastructure, asset monitoring and management, cloud, IoT data management and more.
Technological artefact it is our way of living the world - Interview with Paolo Benanti

by Massimiliano Cannata – Technology and cyber security journalist

Ethics and Artificial Intelligence. The European Union "Trustworthy" approach to innovation technologies.

By Marco Fiore - GCSEC

Paolo Benanti is specialized in bioethics and in the relationship between moral theology, bioengineering and neuroscience. Author “Le macchine sapienti, intelligenze artificiali e decisioni umane, ed. Marietti” is professor at the Pontifical Gregorian University.

TECHNOLOGICAL ARTEFACT IT IS OUR WAY OF LIVING THE WORLD

The development and spread of artificial intelligences have changed our way of being in the world, in addition to our cognitive processes. The turning point is not only technical, but spiritual and philosophical.

Great questions that have marked the evolution of Western thought are coming up again and Benanti is one of the most lucid exponents of the contemporary world. Opened in an authentic way to innovation, he follows with passion and a sense of transcendence the shift of the frontier of knowledge towards ever more ambitious goals, without ever losing sight of the centrality of values and of man.

“Only if we can include – explains in the introduction of his stimulating essay – humanities in the creation of wise machines we can hope not to produce inhuman societies in a more or less near future”. An important warning that the ruling classes at all levels should keep in mind.

THE INTERVIEW

What do we still have to understand about artificial intelligence to overcome the attitude of fear and dismay that today seems to prevail in many areas of society?

I would turn the question in another direction. What we see in society is not so much fear but rather a sense of discomfort that is generated by a new "tool". It seems strange that a simple instrument can cause this dismay, it is not the first time that it has happened. When the convex lens was created in the 16th century, two very powerful instruments were born: the telescope and the microscope. The first allowed us to investigate the infinitely large, the second to study the infinitely small. From that moment the knowledge that we had of the universe changed forever, we understood that the earth was no longer at the center of the solar system and that we are made of an immense number of cells.

A profound upheaval, what extent is it comparable to what is happening at this stage?

There are many similarities. We have the computer that processes the data, generating a new tool that we could call macroscope that allows us to study the infinitely complex. Artificial intelligence is nothing more than this, because it allows us to work on large masses of data that intervene to modify our knowledge of reality. And what is happening with neuroscience that tells us that we live in an ecosystem of complex relationships substantiated by neurons, even the economic and engineering sciences are based on the analysis of an enormous amount of data. In short, we are at a change of era.

news

Retefe Banking Trojan resurfaces in the threat landscape with innovations

https://securityaffairs.co/wordpress/84967/malware/retefe-banking-trojan-resurfaces.html

Security experts at Proofpoint warn of the resurfacing of the Retefe banking Trojan that implements new techniques to avoid detection. The Retefe banking Trojan resurfaces in that threat landscape and implements new techniques to avoid detection. The new variant resurfaced in April, it uses the stunnel encrypted tunneling mechanism and abuses a legitimate shareware app. One of the major changes in the new variant is the abandon of Tor for its communications and the abuse of a legitimate shareware application. Unlike other banking Trojan that leverages on injection mechanisms, Retefe routes online banking traffic intended for targeted banks through a proxy. […]

Artificial Intelligence in Cyber Security – Cyber Attacks and Defence Approach


Artificial Intelligence in Cyber Security is always evolving, say from the old school days when AV was thought to be an effective defender to the present days where AV, SIEM, IPS, endpoint security and protection
Facing a so radical change is no a small thing. How we can do it?

Changes that are taking place cannot be stopped, they are neither to be feared nor to be accepted uncritically. We cannot stop the wind with our hands, as Umberto Eco said, we cannot adopt neither an apocalyptic attitude, nor integrated with development. What we can exercise is a form of balanced discernment that allows us to seize all the opportunities in a changing universe.

When we talk about wise machines, what exactly do we mean? What will they know more than us?

We have to understand each other on this because it is a delicate aspect. When we moved from Africa seventy thousand years ago and we have inhabited different latitudes of the earth, we behaved differently from any other animal. If a mammoth had moved from the Siberian steppes to Africa and Asia, it would have had to wait for the evolutionary times of a bloodline to the birth of specimens without thick fur. For the man we don’t need to wait, because from the beginning he has equipped himself with suitable instruments. In other words, what is confined to DNA for other living beings, for us is something related to technological artifacts. The technological artifact is our way of inhabiting the world, or if you prefer, our way of being human.

The jump dictated by telematics “tools” will admit that it is quite another thing?

It’s a true. In fact, there was a season in which the artifact was a tool tied to the hand. Then came the industrial revolution and the machine arrived, which, programmed and guided by man, was able to do operations without ever getting tired. The hammer-shaking hand obviously could not achieve a comparable performance.

Are we still further with AI?

That machine has become not something we can program but something we train to do operations. I refer to AI and machine learning. The revolution lies in the fact that we thought this was an exclusive human prerogative. Instead, we are faced with another species of “sapiens” that inhabits the planet, which is why understanding this machine becomes something more complex.

Hence the problem of understanding this other kind of sapiens that inhabits the planet?

It’s the bet we have to deal with. When we talk about machine sapiens we talk about that particular feeling of man not being the only one able to do intelligent things on the earth. It is certainly an epistemological leap, which in such a strong way had probably never occurred.

Could it be said, as Baricco does in his last essay, that the chessboard has changed, not a simply way to execute the moves we knew?

It is in fact changing the way we understand and know the world. The correlation of impressive amounts of information, and the power of PCs that give meaning to data, has opened wide horizons. This paradigm seems to be based on engineering knowledge, which is partly true. I think of an old saying of Heraclitus, which held that the oracle of Delphi did not speak, nor did he keep silent, simply meant.

Can you explain for inexpert?

Translated into contemporaneity it means that we can access computers and give meaning to data through algorithms, as if the machine were a deity able to provide us with oracular prophecies about reality. The theme is this: we must put in place a hermeneutic capacity to interpret technology, this is and remains a purely human prerogative.

Dramatic increase in IoT-related data breaches due to unsecured devices


A recent Ponemon Institute study found that there has been a dramatic increase in IoT-related data breaches specifically due to an unsecured IoT device or application since 2017. The study found these breaches account for 26 percent of incidents, up from 15 percent, although the actual number may be greater as most organisations aren’t aware of every unsecured IoT device, application, or third party platform, according to the firm’s “Third Annual Party IoT Risk: Companies Don’t Know What They Don’t Know” report. Researchers found respondents’ companies experienced a data breach were up from 14 percent and 18 percent respectively in the previous year’s findings as 18 percent of them reported incidents while 23 percent experienced a cyber-attack caused by a third party’s unsecured IoT devices in the last year. And the study found staffing an budgets aren’t adequate to manage third party IoT risks as respondents agreed third party risk management (TPRM) programs should include IoT risks in order to evolve and mature their practices.
Artificial Intelligence is certainly one of the new frontiers with which we will have to tackle. The EU has understood this too. Over the last year, more precisely since April 2018, EU has begun a process of assimilation, harmonization and coordination in the legal system, in the socio-economic, and in the ethical and technological system of a safe, responsible and inclusive AI.

As reported by the Commission’s institutional website\(^1\), the EU has recognized Artificial Intelligence as a key strategic objective of technological development, and has decided to set up an ad-hoc committee in order to study the possible approaches to the new technology, work crowned in the elaboration of a document: Ethics Guidelines for Trustworthy AI.

The word “Trustworthy AI” takes in this perspective a very important dimension, a reliable Artificial Intelligence based on three key principles: (1) lawfulness in compliance with applicable laws, directives and regulations, ethical (2) principle and ethical values that have always distinguished the European landscape, and (3) robustness and reliability both from a technical point of view and from the integration point of view into the society since, despite good intentions, a lack of mastery of the technology could unintentionally cause potential damage.

The obviously socio-economic connotation, which has always characterized the European market, has meant that this Trustworthy AI is accompanied by the now granitic guarantees of competitiveness that markets demands and by general conditions to safeguard the development and use of these technologies. Ensuring an appropriate ethical and legal framework, based on the values of the Union and in line with the EU Charter of Fundamental Rights, requires: a relevant assessment of the existing rules on product liability, a detailed analysis of emerging challenges and the necessary cooperation with stakeholders and all these through a European Artificial Intelligence alliance based on ethical guidelines.

The project, now completed\(^2\), was preceded by a joint declaration of intent between the various EU member states\(^3\). It has started in April 2018 with an official communication from the European Commission to the Parliament, the Council, the Economic and Social Committee (EESC), European Committee of the Regions (CoR) with an ethical approach to artificial intelligence.

The initiative’s ultimate goal was to publish European guidelines with an ethical approach to artificial intelligence.

The initial study, which preceded the final text, already showed the role that AI would play in the dynamics of technological evolution: “The AI is helping us to solve some of the world’s greatest challenges: from the treatment of chronic diseases to the reduction of mortality rates in road accident and challenging climate change or anticipating threats to cybersecurity.”\(^4\)

The document even emphasizes the importance of Artificial Intelligence in the same way as the decisive changes occurred during the first

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The investment and socio-economic change objectives of the Union

In addition to underlining the awareness of the importance of AI, the first EU Communication provides many food for thought on the potential and ultimate goal that technology could offer:
- In the research with the training of researchers and creation of world-class laboratories and startups including robotics science and industry for sectors such as transport, health and manufacturing; The EU is today a leader in many technological fields and represents a world-class excellence. The first EU communication does not overlook what was the work started a few months before the start of the European project and led by a task force of experts gathered under the name of AI4People who
- to create, process, share industrial, research, health and public sector data that can exploit Artificial Intelligence systems to be an added value to progress (for example, deep learning and machine learning processes and the new frontiers of deep reinforcement learning, a reinforcement learning that aims not only at learning but at fulfilling the system of real actions).  

“No one is left behind in the digital transformation. AI is changing the nature of work: jobs will be created, others will disappear, most will be transformed. Modernisation of education, at all levels, should be a priority for governments. All Europeans should have every opportunity to acquire the skills they need. Talent should be nurtured, gender balance and diversity encouraged.”. “It is necessary to modernise Europe's education and training systems, including upskilling and reskilling European citizens. (frontiers of deep reinforcement learning, a reinforcement learning that aims not only at learning but at fulfilling the system of real actions).”

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The Horizon 2020 project must certainly be seen as the focal project in which the European Guidelines fit in. One of the many objectives of this project is to connect and strengthen research centres in Europe, to support the development of an “AI-On-Demand” platform providing access to relevant resources for all users and to support the development of AI applications in key and strategic areas. The first EU communication does not overlook what was the work started a few months before the start of the European project and led by a task force of experts gathered under the name of AI4People who
examined what were then defined in “EGE principles”. The document outlines 36 ethical principles divided into four “ethical imperatives”: Respect for human autonomy, charity (doing good) or non-maleficence (not harming) also called Prevention of harm, Fairness and justice, autonomy and Explicability, principles then fully married by the guidelines of the European Union.

The IA Ethics Guidelines roadmap
- In the research with the training of researchers and creation of world-class laboratories and startups including robotics science and industry for sectors such as transport, health and manufacturing; The EU is today a leader in many technological fields and represents a world-class excellence.

Summing up the infographic we can scan exactly what were the steps for creating the ethical guidelines of the “Trustworthy IA”. Following the training and appointment of experts and a first Communication, an initial Draft was published (on 18 December 2018) and a consultation process was officially launched with the aim of collecting feedback, comments and proposals. The consultation ended on 1 February 2019 with over 500 feedback received. Such feedback, analysed and evaluated by AI HLEG, produced a revised and final version of the Guidelines on the “trustworthy AI” delivered and published by the European Commission on April 8, 2019.

15 Artificial intelligence is present in the “EU research and development framework” since 2004 with a specific focus on robotics. The investments allocated increased to € 700 million for the period 2014-2020, perfected by € 2.1 billion of private investments in the public-private partnership on robotics. These efforts have significantly contributed to Europe’s global leadership in robotics such as the Project “Sparc” https://eu-robotics.net/sparc/
16 Europe has the world’s top 100 artificial intelligence research institutions. 32 Research Institutes are in the top 100 global for AI related publications as against 30 from the US and 15 from China. (Source Atomic, State of European Tech, 2017. These include the German Research Centre for Artificial Intelligence (DFKI) founded in 1988, which today is one of the largest research centres in the world in the field of AI.
18 The guidelines are available only in English at the following link: https://ec.europa.eu/futurium/en/ai-alliance-consultation
The outline of the guidelines
Artificial Intelligence, as we have seen before, generates value both for individuals and for society as a whole, however, we must not undervalue the risks that has to be adequately managed that lie behind AI. Overall the careful evaluation of the experts group suggests how to date the benefits of AI outweigh risks associated with it and for this reason it is necessary “an anthropocentric approach to AI, which [obliges us] to keep in mind that development and the use of AI should not be considered as a goal in itself, but as a means to increase human welfare”.

The framework described in the final paper and presented to the Commission, is divided into 3 chapters:
1) Chapter I refers to how to ensure the ethical purpose of the IA, defining the fundamental rights19, principles and values that should be respected such as human rights, autonomy, prevention of damage, fairness and clarity.

2) Starting from these principles, a guide on the implementation of a reliable AI is developed in Chapter II, taking into account both the ethical purpose and the technical robustness. For this purpose, the requirements for a reliable AI are listed and an overview of the technical and non-technical methods that can be used for its implementation is provided.

3) Finally, Chapter III makes these requirements operational by providing a concrete but non-exhaustive checklist for assessing the reliability of the AI. This list is subsequently adapted to specific use cases.

- The first chapter sets out ethical and social principles for assessing the possible future effects of AI on human beings and the common good. IA should in fact be developed, distributed and used with "ethical purposes" reflecting the fundamental rights, social values and ethical principles on which they are based and referred to above, namely the four ethical imperatives: respect and autonomy of the human being, charity (doing good) or non-maleficence (not harming), fairness, autonomy, justice and explicability.

This section summarises all the fundamental rights that cannot be left out if we tackle AI responsibly and in full compliance with the EDU Charter.

“Respect for human dignity”, the idea that every human being has an "intrinsic value", which should never be diminished, compromised or repressed by others - nor by new technologies such as Artificial Intelligence systems, it’s definitely one of them.

The “Freedom of human being” which in an AI context, requires, for example, the mitigation of (in) direct illegitimate coercion, threats to mental autonomy and mental health, unwarranted surveillance, of deception and unjust manipulation.

“Equality, non-discrimination and solidarity” in other words, particular attention should also be given to situations involving the most vulnerable groups, such as children, persons with disabilities or minorities, or situations where power or information asymmetries occur, for example between employers and workers, or between businesses and consumers20.

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19 Fundamental rights are the basis of international and EU human rights law and are the basis of legally binding rights guaranteed by the EU Treaties and the EU Charter. As it is legally binding, respect for fundamental rights is therefore part of the first component of the Trusted IA (legitimate IA). However, fundamental rights can also be understood as reflections of special moral rights of all individuals who arise by virtue of their humanity, regardless of their legally binding status. In this sense, therefore, they are also part of the second component of reliable IA (Ethical IA).

20 See Articles 24 to 27 of the EU Charter of Fundamental Rights (EU Charter), which deals with the rights of the child and the integration of people with disabilities and workers’ Rights. See also Article 38 on Consumer Protection.
“Respect for democracy, justice and the rule of law”, where all the governmental power of constitutional democracies is legally lawful and limited by law. Artificial Intelligence systems should serve to maintain and promote democratic processes and respect the plurality of values and budgets of individuals.

The “Explicability” that encloses within its own meaning both epistemological one of "intelligibility" (as answer to the question "how does it work?") and ethical one of "Responsibility" (as an answer to the question: "who is responsible for the way it works?")

![Diagram](image)

Framework for Artificial Intelligence, four traditional principles and a new one added

AI4People©

Recognise and be aware that, while providing substantial benefits to individuals and society, AI can also have negative consequences. We must keep our guard up even in the most critical areas.

In addition to the critical findings identified in the first published document, the summary document also includes all other risks that may have a negative impact, including impacts that are difficult to predict, identify or measure. For example, the impact that IA could have on democratic legal systems, on the rule of law or on distributive justice (which concerns the nature of a socially just distribution of goods) or even on the human mind itself.

- The second chapter, on the other hand, provides guidance on how reliable AI can be achieved by listing seven general requirements that Artificial Intelligence systems should meet. Experts also suggest two different approaches, one technical and one non-technical as possible solutions for implementing these requirements. The seven general requirements are the following:

1. Human agency and oversight: Artificial Intelligence systems should foster the development of social equity, supporting fundamental rights, without diminishing, limiting or misleading human autonomy.
2. Technical robustness and safety: Trustworthy AI requires secure and sufficiently robust algorithms to counteract errors and inconsistencies during the entire lifecycle of Artificial Intelligence systems.
3. Privacy and data governance: Citizens should have full control over their data, in the certainty that the data concerning them cannot be used to their detriment or for discriminatory purposes.
4. Transparency: The traceability of Artificial Intelligence systems must be guaranteed.
5. Diversity, fairness, absence of discrimination: Artificial Intelligence systems should take into consideration all human abilities and skills, guaranteeing accessibility for all.
6. Social and environmental well-being: Artificial Intelligence systems should be used to support positive changes, improve environmental sustainability and ecological responsibility.
7. Accountability: Mechanisms must be adopted to guarantee accountability on Artificial Intelligence systems and their results.

At the end of the following part, the document summarizes some best practice to make Artificial Intelligence applied to systems and to make it more effective in the environment.

- Promote research and innovation to help assess Artificial Intelligence systems and help meet the seven requirements; disseminating results and engaging the public by systematically creating new shared content.
• Communicate, in a clear, proactive and transparent manner information to stakeholders on the capabilities and limitations of the Artificial Intelligence system, enabling realistic assessments and expectations and communicating how those requirements are implemented.
• Facilitate the traceability and audit of AI systems, in particular in critical contexts or situations.
• Involve stakeholders throughout the life cycle of the AI system. Encourage training and education so that all subjects are aware and trained in AI.
• Do not forget that there may be important imbalances between different principles and requirements. Identify, evaluate, document and continuously communicate these trade-offs and their solutions.

But not only that, the second chapter tries to summarize the tools that can actually be implemented and developed in terms of AI.
The non-technical and technical approaches are divided into the following different categories:

“Strictly” Technical:
• Architectures for a trustworthy IA
• Ethics and law based by design (X-by-design. For example privacy-by-design and security-by-design)
• Evaluation methods and parameters (called Explainable AI - XAI)
• Test and validation
• Service quality indicators

Non – Technical:
• Regulations
• Codes of conduct
• Standards and Certifications
• Governance and definition of roles and responsibilities
• Education and awareness to promote ethical mindsets
• Stakeholder participation and social dialogue
• Inclusive diversity and design team.

- Chapter III seeks to provide an assessment (not exhaustive for the reasons mentioned above), to make the second chapter points operational to the approach of application of the technical/non - technical methods and provide a potential pilot questionnaire on the ’Trustworthy AI Assessment.’

• Adopt a risk assessment approach suitable for trustworthy AI during the development, implementation or use of IA systems and adapt it to the specific use case in which the system is applied.
• Remember that the evaluation list will never be exhaustive. Guaranteeing a reliable AI cannot be a ticking box checklist, but an identification and continuous implementation of the requirements, an assessment of the solutions to insure the entire AI system life cycle and the necessary stakeholder involvement in those processes.

The experts, in their recommendations, underline how the document represents a starting point to open a serious debate on ethics and AI and its applications. The horizontal framework defined with this document should not be taken as a "standard" nor shall it seek to replace any form of current or future regulation, but calls for an exploration of verticalities that AI itself could have in the practical use of specific sectors.
The Guidelines use case

The last part of the Lines contains important examples of use cases where IA has found application.

As an example, one of the more illustrative, in several of new projects implemented in technological sectors, is about difficulties in training and in finding resources:

One of the reported use cases is for example the Quality Education and digital transformation:

“New technological, economic and environmental changes require society to become more proactive. Governments, industry leaders, educational institutions and trade unions must take responsibility for accompanying citizens in the new digital age, ensuring that everyone have to have right skills to fill future jobs. Reliable IA technologies could help predict more precisely which jobs and professions will be disrupted by technology, what new job role will be created and what skills will be needed. This could help governments, trade unions and industry to plan the (re) qualification of workers. It could also give citizens, who fear redundancy a path to development, in a new role. In addition, Artificial Intelligence can be an excellent tool to struggle educational inequalities and create customized and adaptable educational programs that could help everyone acquire new qualifications, skills and competences based on one’s ability to learn. It could increase both the speed of learning and the quality of education, ranging from primary school to university.”

Conclusions

Horizon 2020 are surely the cornerstone project that holds up the European whole infrastructure of investments for the technological development and that it transversally overwhelms a crowd of sectors among which the IA. The EU program has funded more than 18,000 research projects on the AI, spending more than € 30 billion. It has also committed €1.5 billion exclusively in ethical research, expecting another €2.5 billion to come from public and private funding. On the other hand, at least 7 billion investments are planned between the Horizon Europe (2021 - 2027) and Digital Europe programs.

It would seem to this point to have a comparison. Among the nations more engaged in the development of AI technologies, China is certainly the first in the world with its rival U.S.A. in terms of technological competitiveness.

To report significant data to the reader, in ethical domain and AI, China has predicted an investment of 13 billion to which will be added private investments. Artificial intelligence is one of the political goals of Beijing’s “Made in China 2025”, which sets the ambitious agenda of leading China to become the global leader in AI by 2030.

The necessary consideration that must be established between Ethics and Artificial Intelligence makes everyone one think necessarily about Isaac Asimov’s film “I Robot” and the contemporary television series Westworld, where machines, designed to serve man loyally, change into negative positions and turn against their creators.

Concluding “trustworthy AI can improve individual prosperity and collective well-being by generating prosperity, value creation and maximizing wealth. It can contribute to the achievement of a fair society, contributing to increasing the health and well-being of citizens in ways that promote equality in the distribution of economic opportunities”, and that it must necessarily consider the potential risks and dangers that the same technologies will be able to reverberate on man and on innovative systems.

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22 Example of such projects are the MaTHiSiS project, which aims to provide a solution for affected-based learning and, including high-level technological devices and algorithms: (http://mathisis-project.eu/). See also IBM’s Watson classroom or Century Tech platform.


25 Currently, China already has a large advantage over many other countries in terms of academic documents, patents and AI funding, cross-border and global
The reports of GCSEC international study “Mind the Gap: The Cyber Security Skill Shortage and Public Policy Interventions”, is available here [https://gcsec.org/pubblicazioni/](https://gcsec.org/pubblicazioni/)