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ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

Decolonial Artificial Intelligence; Algorithmic Fairness in Alignment with Turkish and Islamic Values

Sömürge Durumundan Çıkarılan Yapay Zekâ; Türk ve İslamî Değerlerle Uyumlu Algoritmik Adillik

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Abstract: We have been witnessing an era in which, even the countries and the institutions that introduced, developed, and to various degrees benefited from hegemonic power from international conceptions, norms, and values do not obey or sustain these so-called international norms or values. For example, a country established and recognized thanks to United Nations (UN) norms may be involved in hostile actions against both civilian populations and UN peacekeeping missions but can be protested by UN countries only with weak voices. Our regional social memory about the untrustworthiness of the so-called international justice system full of double standards, the devastating consequences of the unrighteous invasion examples such as Iraq and Afghanistan, and the normalization of destructive global Islamophobia illustrates the necessity of remembering and bringing the regional norms and values into the forefront. Research works on topics such as *Fairness in Agreement with European Values: An Interdisciplinary Perspective on AI Regulation* or *Decolonial AI Alignment: Openness, Vísesa -Dharma and Including Excluded Knowledges*, generated the motivation to search for artificial intelligence (AI) alignment with Turkish and Islamic Values. The driving force to this research work is the fact that all of the algorithmic decision-making systems include bias to some extend and the non-western world needs to construct its own value-based technological and sociological development models since there is not much belief left in the so-called international justice or the so-called democratic values. This research includes an examination of brief information about the fundamentals of big data, algorithms, and artificial intelligence. The importance of thick data and digital anthropology is emphasized. Misuse and abuse of AI have been identified as one of the most important challenges. Vygotsky's arguments on social learning, the social construction of technology theory, and worldview theory may provide some of the arguments to construct the idea of an AI approach that may be developed following Turkish and Islamic values. Decolonial AI arguments, fairness in AI approaches, and the Anatolian Yeast Worldview have also been utilized to empower our argument. Lastly, brief information on Turkish and Islamic values was presented, limited to the scope of this research.

Keywords: Al Alignment, Decolonial AI, Misuse of AI, Thick Data, Digital Anthropology, The Social Construction of Technology Theory, Algorithmic Fairness, Turkish and Islamic Values.

Öz: Uluslararası kavramları, norm ve değerleri öne süren, geliştiren ve çeşitli ölçeklerde bunlar üzerinden hegemonya gücü edinen ülke ve kuruluşların dahi bu sözde uluslararası norm ve kurallara uymadığı veya devam ettirmediği bir zaman dönemine şahitlik etmekteyiz. Örneğin Birleşmiş Milletler (BM) sayesinde kurulan ve tanınan bir ülke hem sivil halkı, hem de BM barışı koruma görev gücüne düşmanca faaliyetlere girişebilmekte

ve BM ülkelerince sadece cılız seslerle protesto edilebilmektedir. Çifte standartlarla dolu sözde uluslararası adalet sisteminin güvenilmezliğine dair bölgesel toplum hafızamız, Irak ve Afganistan gibi haksız işgal örneklerindeki yıkıcı sonuçlar ve tahrip edici küresel İslamofobinin normalleştirilmesi, bölgesel norm ve değerlerin hatırlanması ve ön plana çıkarılması yönündeki gerekliliği göstermektedir. DNA dizilim çalışmalarının laboratuvarlara e-posta ile iletmesi suretiyle talebe özgü protein üretiminin gerçekleştirilebildiği, yoğun biyolojik veri analizi neticesinde yapay zekanın gen editörü olabileceği, insan beyin yönetiminin yapay işletim sistemiyle ele geçirilebileceği hususlarının bilim insanlarınca iddia edildiği günümüzde, yapay zekâ politikaları stratejik öneme sahip olmuştur. Yapay zekanın temel taşını oluşturan büyük veri, makine öğrenmesine ve nesnelerin internetine de kaynaklık oluşturması sebebiyle daha da önem kazanmış olup antropolojik (insanbilimsel) nüansların odağa konulmasıyla birlikte artık yoğun veri kavramına önem verilmesi gerekmiştir. Diğer taraftan bireylerle veri işleme arasındaki ilişkiler geliştikçe, nesnelerin internetinin insan hayatı üzerindeki kontrolünün de arttığı hissedilmektedir. Antropolojideki harmanlanmış devrim sonucu; dijital veri antropolojiden faydalanılarak, antropolojik veriler de dijitalden faydalanılarak çalışılmış, büyük veriyi ve yoğun veriyi aynı anda işleyen antropolojik algoritmaları oluşturan harmanlanmış algoritmalar geliştirilmiştir. Teknolojik gelişmeler sonucu, nano makine ve nano robotların geliştirilmesi neticesinde nano nesnelerin interneti üzerine çalışmalar araştırmacıların özel önem verdiği konular arasında yerini bulmuştur. Dijital teknolojilerin artan kullanımı, dijital manipülasyon, aldatma, dezenformasyon ve suiistimalin de artmasını beraberinde getirebilmektedir. Bu sebeple gelişmiş ülkelerdeki uluslararası bilimsel araştırma enstitüleri benzeri enstitüler veya mükemmeliyet merkezleri, Türk ve İslam ülkelerine yönelik araştırmaları yönetmek, yönlendirmek, yol haritaları, rapor ve prensipleri oluşturmak üzere geliştirilebilir. Ne de olsa teknoloji, toplumsal olarak inşa edilmiştir ve teknolojik kültür, sosyo-teknik birliktelikleri içerir. Dijital mecralarda sömürgecilik açık veya örtülü olarak çeşitli roller oynayabilir. Dijital sömürgecilik, gücün sömürgeciliği vasıtasıyla, dijital yapılarda sosyokültürel imgelem inşaları ile veya günümüzde sorgulanmayan geçmişten gelmiş değerlerle temellendirilen bilgi sistemleri kullanılarak gerçekleştirilmektedir. Bu sebeple Batı-merkezcil bakış açısı sorgulanmalı ve kendine özgülüğe önem verilmelidir. Yapay zekada adillik, verinin tekrar-örneklemlendirilmesi, ön-işlenmesi ve ardıl-işlenmesi ve benzeri yöntemlerle sistemin önyargılardan arındırılması şeklinde tanımlanabilir. IBM, Google ve Microsoft gibi şirketler adillik için çeşitli uygulamalar geliştirmiştir. Bir taraftan Avrupa ülkelerinin, diğer taraftan BRICS+ ülkelerinin yapay zekâ politika ve uygulamalarında iş birliği gerçekleştirmeleri, Türk ve Müslüman nüfuslu ülkelerin de yapay zeka uygulama ve kural ve politika geliştirme konularında işbirliği gerçekleştirmelerine örnek olabilir ve güç birliği oluşturulmasına katkı sağlayabilir. Nasıl ki piyasa ekonomisinin sisteme hâkim olmaya başladığı dönemde, piyasanın toplumu yıkıcı düzeninden toplumun korunması için kültürel kurumların koruyuculuğu elzem görülmüşse, günümüzde de dijitalleşme ve yapay zekâ teknolojilerinin getirdiği yeni sistemde, toplumu korumak için kültürel kurumların, insani ve toplumsal değerlerin ön plana çıkarılması elzemdir. Bu amaçla Türk ve İslam değerlerine farkındalığın arttırılması, veri işleme, yapay zekâ ve diğer teknolojik alanlarda bahse konu değerlerden faydalanılması ve uluslararası iş birliklerinin geliştirilmesi önerilmektedir.

Avrupalı Değerlerle Bağdaşan Âdillik: Yapay Zekâ Düzenlemesi Üzerine Bir Disiplinlerarası Bakış Açısı veya *Yapay Zekanın Sömürge Durumundan Çıkarılmasına Uyumlaştırma: Açıklık, Viśesa -Dharma ve Dışta Bırakılan Bilgi Birikiminin Kapsama Dahil Edilmesi* gibi konular üzerine araştırma çalışmaları, Türk ve İslam değerleri ile uyumlu yapay zekâ için arayış motivasyonunu oluşturmuştur. Tüm algoritmik karar oluşturma

sistemlerinin bir ölçüde de olsa taraflılık içermesi ve uluslararası adalet veya demokratik değerler diye isimlendirilen şeylere çok da fazla inanç kalmaması nedeniyle batılı-olmayan dünyanın kendi değer-temelli teknolojik ve toplumsal gelişim modelleri geliştirme ihtiyacı gerçeği, bu araştırma çalışmasının itici gücü olmuştur. Bu araştırma büyük veri, algoritmalar ve yapay zekâ temelleri hakkında özet bilgilerin incelenmesini içermektedir. Vygotsky'nin toplumsal öğrenme üzerine görüşleri, teknolojinin toplumsal inşası teorisi ve dünya görüşü teorisi, Türk ve İslami değerlere uygun olarak bir yapay zekâ yaklaşımı geliştirilebileceği fikrini inşa için çıkarımlar sağlayabilir. Yapay zekânın sömürge durumundan çıkarılması argümanları, yapay zekâda adillik yaklaşımları ile Anadolu Mayası Dünya Görüşü de, iddiamızı güçlendirmek için değerlendirilmiştir. Son olarak, araştırmanın kapsamıyla sınırlı olarak Türk ve İslâmi değerler üzerine kısa bilgi sunulmuştur.

Anahtar kelimeler: Yapay Zekâ Uyumlulaştırması, Sömürge Durumundan Çıkarılan Yapay Zekâ, Yapay Zekânın Suistimali, Yoğun Veri, Sayısal İnsanbilim, Teknolojinin Toplumsal İnşa Teorisi, Algoritmik Adillik, Türk ve İslam Değerleri.

Introduction

It is an undeniable fact today that for a prosperous society, technological developments must be carefully evaluated both to benefit from their advantages and to be cautious against their misuse and abuse.

Artificial Intelligence (AI) research is one of the most important technological development fields that affect the lives of individuals and the welfare of societies. In this research work, artificial intelligence and related technological developments will be monitored in search of their optimal utilization by fair, values-based public benefit.

As an example of the abuse of technology; artificial intelligence-based software "Lavender" was utilized by Israelis in recent attacks against Palestinians to produce targets for assassinations and unprecedented bombing despite knowing that the software makes what is considered as "errors" in almost 10 percent of situations and is known to occasionally spot individuals who have merely a loose connection to militant organizations, or no connection at all.[1] Artificial Intelligence system was utilized to wipe out thousands of Palestinians - most of them women and children or people who were not involved in the fighting - by Israeli airstrikes.[2] Previously, artificial intelligence systems called Habsora or Gospel were reported as AI systems turned into civilian killing machines.[3] These kinds of various reports and information on mis-instrumentalization of AI, highlight the importance of setting international standards and precautions against dehumanizing AI programming.

Warnings, against the functions that artificial intelligence systems may reach to accomplish, have nowadays necessitate being cautious in various dimensions of life. Eliezer Yudkowsky, regarded as a founder of the field of aligning Artificial General Intelligence argues that, since today one can email DNA strings to laboratories to develop proteins on demand, artificial intelligence may construct artificial life forms or achieve post-biological molecular manufacturing without external assistance[4]. It has been argued that recent developments in AI technology allow the generating of blueprints for microscopic biological mechanisms that can rewrite human DNA and artificial intelligence become capable of producing "new gene editors after analyzing enormous amounts of biological data, including microscopic mechanisms that scientists already use to edit human DNA".[5] Some AI industry research experts even suggest hypotheses such as "the human directive system can be hacked and

1 Yuval Abraham, "'Lavender': The AI machine directing Israel's bombing spree in Gaza", +972 Magazine, https://www.972mag.com/lavender-ai-israeli-army-gaza/ (09.07.2024).

2 "'Lavender': The AI machine directing Israel's bombing spree in Gaza"

3 Cassidy, Jennifer, "Gospel truth: Israel turns AI into civilian killing machine in Gaza", TRT World, https://www.trtworld.com/opinion/gospel-truth-israel-turns-ai-into-civilian-killing-machine-in-gaza-16250446?trk=article-ssr-frontend-pulse_little-text-block (09.07.2024).

4 Eliezer Yudkowsky, "Pausing AI Developments Isn't Enough. We Need to Shut it All Down", Time, https://time.com/6266923/ai-eliezer-yudkowsky-open-letter-not-enough/ (09.07.2024).

5 Cade Metz, New York Times, "Generative A.I. Arrives in the Gene Editing World of CRISPR", https://www.nytimes.com/2024/04/22/technology/generative-ai-gene-editing-crispr.html (09.07.2024).

replaced by an artificial operative system".[6] Considering the fact that the technology has reached a peak level that enables manufacturing proteins throughout DNA processing, it can be argued that it becomes vital to keep the developments of artificial intelligence systems safe and in accordance with national and international values.

Artificial Intelligence, Machine Learning, Algorithms

There are various definitions of artificial intelligence made by considering various dimensions and scopes the term covers. One definition found in the European AI Strategy 2018[7] can be helpful to give us a quick idea about what AI is. "Artificial Intelligence refers to systems that display intelligent behaviour by analysing their environment and taking action — with some degree of autonomy — to achieve specific goals."[8] According to this definition, it can be suggested that specific goals of artificial intelligence can be designed by considering specific approaches, understandings, and values.

A more comprehensive definition of AI can be found in High-Level Expert Group on Artificial Intelligence set up by the European Commission document[9]: "Artificial intelligence systems are software (and possibly also hardware) systems designed by humans* that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behaviour by analysing how the environment is affected by their previous actions." * "Humans design AI systems directly, but they may also use AI techniques to optimize their design"[10].

The abovementioned characteristics illustrate that artificial intelligence systems are subject to depend on human thinking and contribution to various extends. Accordingly, this research article suggests that the virtuous development of these systems may be accomplished with the help of some set of values, especially Turkish-Islamic values.

6 Pablo del Río, Amelia Álvarez, "Cultural Historical Psychology and the Reset of History".

7 "Artificial Intelligence for Europe", European Commission Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions COM (2018) 237 final, https://www.eumonitor.eu/9353000/1/j4nvke1fm2yd1u0_j9vvik7m1c3gyxp/vknuq8ls10yp/v=s7z/f=/com(2018)237_en.pdf (09.07.2024).

8 Samoili, Sofia, López Cobo, Montserrat, Gómez, Emilia, De Prato, Giuditta, Martínez-Plumed, Fernando, and Delipetrev, Blagoj, "Defining Artificial Intelligence. Towards an operational definition and taxonomy of artificial intelligence", *AI Watch,* https://op.europa.eu/en/publication-detail/-/publication/83838dbc-3d1f-11ec-89db-01aa75ed71a1 (09.07.2024).

9 "A definition of AI: Main capabilities and scientific disciplines", High Level Expert Group on Artificial Intelligence set up by the European Commission, https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=56341 (10.07.2024).

10 Samoili et al. "Defining Artificial Intelligence. Towards an operational definition and taxonomy of artificial intelligence", 9.

Various sets of these social values can be designed for the construction of various AI systems to achieve specific goals in the physical or digital dimensions.

Understanding complex AI systems necessitates the examination of related concepts. One of the important terms is big data.

Big data is a term referring to extremely huge volumes of data generated with fast speed from various sources.[11] Key characteristics of big data can be summarized as[12];

1. Big data has a huge volume of data to be processed,
2. Big data is being generated at very high speeds,
3. Big data is being generated from a multitude of different data sources,
4. Big data tends to be unpredictable since it has a large number of data dimensions that come from a large number of different data types and sources,
5. The usability or the value of Big data differs since the data may be acquired from irrelevant or unreliable sources

Big data is very important because it can be referred to as the building block of artificial intelligence and machine learning systems with decentralized processing such as the Internet of Things and as big data becomes more influential in decision-making processes, ethical considerations need careful attention.[13]

Philosopher Sheikh Edebali suggests, *keep the people alive, so that the state can live*. This saying demonstrates the importance of people-centric approaches. Inquiries resulting in the formation of data that feed AI must also better have human-centred focuses. The term thick data is introduced in the process of digitising the human. Thick data refers to an anthropological respond to big data, that integrates abundant, human nuance at scale, and claims for the need of its combination into data analysis application.[14] Studies, inquiries, and research on the Turkish Islamic world are very important to provide reliable data for a value-based AI approach.

Researchers must also focus on international policies regarding data because these policies may easily affect national artificial intelligence strategies. The term, 'data diplomacy' can be defined as the utilization of diplomatic achievements and abilities by a diversified variety of stakeholders "to broker and drive forward access to data", in addition to wide-ranging operation and understanding of data.[15]

11 Husain, Muhammed Shahid, Khan, Zunnun Muhammed, and Tamanna Siddiqui, "Big Data Concepts, Technologies and Applications", 10.

12 "Big Data Concepts, Technologies and Applications", 8,9, 10.

13 Davide Tosi, Redon Kokaj, and Marco Rocetti, "15 Years Of Big Data: A Systematic Literature Review", 32.

14 UNESCO, "New Horizons in Digital Anthropology Innovation for Understanding Humanity", https://unesdoc.unesco.org/ark:/48223/pf0000382647 (27.07.2024).

15 Andy Boyd, et al., "Data Diplomacy"; Gilian Oliver et al, "Understanding data culture/s: Influences, activities, and initiatives", 206.

Another important term related to artificial intelligence is the Internet of Things. The Internet of Things can be defined as the network of interconnected objects, machines, devices, and even living beings that possess unique identifiers that have the capability to interchange data over a network without the necessity for direct human or computer interaction[16]. It can be useful to highlight the fact that; "By empowering individuals with data, the Internet of Things fosters a sense of control over our lives".[17] Consequently, it is crucial to sustain and secure a reliable data environment to achieve a value-based AI approach.

More importantly, new technological developments enable researchers to bring the Internet of Nano-Things into our lives. The Internet of Nano-Things are technological system made up of networks of interconnected nanoscale devices such as nanorobots, nanosensors, and nanomachines which can communicate and interchange data with each other and with larger systems.[18] Before societies fully integrate into the internet of nano-things, it is better to keep reliable and controllable data.

Regarding artificial intelligence, other core concepts one needs to know may be machine learning and deep learning. Machine learning is a subset of artificial intelligence technology and algorithms that allow systems to recognize patterns, make decisions, and develop themselves through experience and data.[19] To perform cognitive tasks, automating the task of analytical model building is executed by applying algorithms hat iteratively learn from problem-specific training data, which enables computers to discover hidden insights and complex patterns without explicitly being programmed.[20]

Deep learning is an advanced approach to machine learning that utilizes networks that function like human brain neural networks to logically analyse data, learn complicated patterns and make predictions independent of human input.[21]

Unlike traditional machine learning and data mining algorithms, deep learning can provide good solutions to various real-world problems by producing extremely high-level data representations from enormous amounts of raw data via training the sophisticated learning algorithms of processors called artificial neurons.[22] This training may be done by considering social values.

16 Simon Burge, "What is IoT & Why IoT is Important", International Security Journal, https://internationalsecurityjournal.com/why-iot-is-important/ (30.06.2024).

17 "What is IoT & Why IoT is Important".

18 Abdullah Alabdulatif, Navod Neradjan Thilakarathne, Zaharaddeen Karami Lawal, Khairul Eahsun Fahim, Rufai Yusuf Zakari, "Internet of Nano-Things (IoNT): A Comprehensive Review from Architecture to Security and Privacy Challenges", 2.

19 "Artificial Intelligence vs. Machine Learning", Columbia University AI Engineering, https://ai.engineering.columbia.edu/ai-vs-machine-learning/ (03.07.2024).,

20 Christian Janiesch, Patrick Zschech, Kai Heinrich, "Machine Learning and Deep Learning", 686.

21 "Artificial Intelligence vs. Machine Learning", Columbia University AI Engineering.

22 Iqbal, H. Sarker, "Deep Learning: A Comprehensive Overview on Techniques, Taxonomy, Applications and Research Directions", 420.

As a result of blended digital innovation in anthropology, doing the digital anthropologically and doing anthropology digitally have been blended research resulting in blended algorithms, which are anthropological algorithms that collect and analyze both thick data and big data simultaneously.[23] Consequently, algorithms can be designed with the help of social and cultural values so as to collect and analyze with a community-based focus.

Regarding human-algorithm relations, in another paper published by UNESCO; Cury and Arora argue that "While it's easy to imagine that these content–generating algorithms will always be in the service of, ultimately, Big Tech, what's perhaps also possible is a world in which people want or demand algorithms that also work for them, and new products or services become available that do that in order to differentiate".[24] It is suggested that digital anthropologists may assist in uncovering, comprehending, and constructing better human-algorithm relationships but also it is emphasized that digital anthropologists must first decide on their stance, "whether through codes of practice, ethical guidelines, or setting forth a clear human-driven goal at the outset of a particular project".[25] Instead of the Big Tech approach, social and cultural value-based approaches can be chosen for the prosperity of societies. Turkish and Islamic communities must focus on empowering digital anthropology research.

Relationships with Artificial Intelligence: Thick Data, Digital Anthropology

In the United Nations Educational, Scientific and Cultural Organization (UNESCO) report named *New Horizons in Digital Anthropology*, *Innovation for Understanding Humanity*; it is stressed that the aim of anthropology was to "scientifically classify groups of human beings as different and therefore separate the savage from the civilized, the literate from the illiterate, the traditional from the modern".[26] Regarding barriers to digital innovation, it is also reminded that ethnography has been historically utilized as a tool to create and reinforce hierarchical violence.[27] Considering this fact, it can be suggested to reinforce anthropological and ethnographical studies regarding Turkish and Islamic communities in order to abstain from foreign bias and hierarchy.

Max Weber argued that scientific reasoning must necessarily be value-free and separate from social context but nowadays in this new age of scientific advancement, the idea of value neutrality has been mostly abandoned and objectivity is not approached in a unified way.[28]

23 UNESCO, "New Horizons in Digital Anthropology Innovation for Understanding Humanity", 20,24.

24 Maria Cury, Millie P. Arora, "Can people have healthy relationships with algorithms?", UNESCO Liivcenter, https://unesdoc.unesco.org/ark:/48223/pf0000384894 (30.06.2024).

25 Cury, Arora, "Can people have healthy relationships with algorithms?".

26 Anna Clarke, (2019). "The Why and the How: Rethinking Anthropology through an Africana Lens" cited in UNESCO, "New Horizons in Digital Anthropology Innovation for Understanding Humanity", 48.

27 "The Why and the How: Rethinking Anthropology through an Africana Lens", 48.

28 Pavle Pavlović, Mitja Hafner Fink, "New ethnographic perspective on relational ethics in the field of Artificial intelligence", 2416, 2418.

Algorithms and their composition are even more subjective and value-laden, with desired outcomes invented by developers, users, and machines and with deep ethical results.[29]

Anthropologist Nick Savier argues that algorithms are not just technologies that effect society, not a changing power outside culture, but algorithms are parts of society, "unstable objects, culturally enacted by the practices people use to engage with them".[30] Regarding contemporary folklore and culture, it is suggested that people and algorithms lead each other to act in a complicated interplay that effects how tradition is developed, maintained, and disseminated.[31] Consequently, it can be suggested that algorithms must be seen as a part of Turkish and Islamic culture.

It will be beneficial to illustrate examples of cultural anthropology evaluations to set standards for cultural algorithm programmers. Below, a sentence from cultural anthropologist Clifford Geertz's evaluation of Javanese People is presented to illustrate the level of perfection that cultural algorithm programmers may try to reach: In Java, "To be human is not just to breathe; it is to control one's breathing, by yogalike techniques, so as to hear in inhalation and exhalation the literal voice of God pronouncing His own name-'hu Allah.'"[32]

Misuse of Artificial Intelligence, Digital Manipulation, AI Deception

It is an undeniable fact that the use of artificial intelligence software systems becomes more and more vulnerable to being implicitly or explicitly instrumentalized for misinformation, disinformation, manipulation, deception, or black propaganda.

It has been argued that none of the algorithmic decision-making systems can completely be free of bias whereas direct algorithmic discrimination can be designed by proxy discrimination which happens where an inherently discriminatory criterion is directly coded into the algorithm.[33] The evidence overwhelmingly suggests that developing a 'non-Western', value-based AI approach is a must.

Recent news illustrated that Meta-owned WhatsApp's artificial intelligence that generates images in response to users' searches returns a picture of a gun or a boy with a gun when prompted with the terms "Palestinian", "Palestine" or "Muslim boy Palestinian", whereas when prompted with the term "Israel army" the AI created drawings of soldiers smiling and praying, no guns involved.[34] This demonstrates the need for being precautious and having confidence in BigTech AI.

29 "New ethnographic perspective on relational ethics in the field of Artificial intelligence", 2418.

30 Nick Seaver, "Algorithm as Culture: Some Tactics for the Ethnography of Algorithmic Systems", 5; Guro Flinterud "'Folk' in the Age of Algorithms: Theorizing Folklore on Social Media Platforms", 445.

31 Flinterud "'Folk' in the Age of Algorithms: Theorizing Folklore on Social Media Platforms", 447.

32 Clifford Geertz, *The Interpretation of Cultures*, 53.

33 Jeremias Adams-Prassl, Reuben Binns, Aislinn Kelly-Lyth, "Directly Discriminatory Algorithms", 158.

34 Johana Bhuiyan, "WhatsApp's AI shows gun-wielding children when prompted with 'Palestine'", The Guardian, https://www.theguardian.com/technology/2023/nov/02/whatsapps-ai-palestine-kids-gun-gaza-bias-israel (14.07.2024).

Digital manipulation is described as any digital technology influence designed to bypass reason to manufacture asymmetry of outcome between the data processor and the data subject.[35] Furthermore, machine learning algorithms of deepfake technology may be utilized to analyze and distort data to generate fake videos, images, and audio recordings which may be utilized to manipulate public opinion.[36] AI arena is more than an arena of competition, it becomes an arena of war. Turkish and Islamic world may need to develop their own values-based approach regarding AI. Interestingly, recent research[37] on the reliability of artificial intelligence illustrated that the same artificial intelligence system may give completely contrasting answers to the same question when searched in Türkiye and in the United States.

One of the negative functions that artificial intelligence systems may cause is a kind of deception, namely sandbagging. Sandbagging is giving different answers for the same question to different groups which may direct these groups to crucial divergencies in their beliefs and values causing societal discord and increased cultural divides.[38] By synthesizing the key points, being precautious against the colonizing strategies such as 'divide & rule', is still necessary even in the field of AI.

Emphasizing that AI misuse and disinformation can damage society very significantly and highlighting the supremacy of companies over publicly-funded AI researchers regarding datasets and compute facilities, European researchers suggest to act and together to establish CERN-like European infrastructure for AI research and open source tools.[39] In light of this analysis, it can be suggested to establish an AI infrastructure for a decolonized, fair, and values-based AI approach for the Turkish and Islamic world.

Theoretical Perspectives

"*Ibn ul-'Arabi, the great Islamic mystic, exclaims in one of his poems-*

'Deliver us, oh Allah, from the sea of names!'

We have often repeated this exclamation in our own readings in sociological theory."[40]

In his book, *Mind in Society*, psychologist Vygotsky emphaiszes that the "internalization of socially rooted and historically developed activities is the distinguishing feature of human psychology".[41] Internalization is defined as the internal reconstruction of an external operation that starts with the transformations of[42]:

35 Marcello Ienca, "On Artificial Intelligence and Manipulation", 840.

36 Ienca, "On Artificial Intelligence and Manipulation", 839, 840.

37 Furkan Çakır, "Yapay Zekâ ve Hadis", 117.

38 Çakır, "Yapay Zekâ ve Hadis", 9.

39 Kalina Bontcheva et al., "Generative AI and Disinformation: Recent Advances, Challenges, and Opportunities", 27,

40 Peter L. Berger, Thomas, Luckmann, *The Social Construction of Reality*, 8.

41 Lev S. Vygotsky, *Mind in Society*, 57.

42 Vygotsky, *Mind in Society*, 56, 57.

1. "An operation that initially represents an external activity is reconstructed and begins to occur internally",
2. "An interpersonal process is transformed into an intrapersonal one. Every function in a child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (interpsychological), and then inside the child (intrapsychological)."
3. "The transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events."

Society has crucial importance in the formation of human knowledge because socially rooted and historically developed activities affect human knowledge. Similarly, the programmer of the algorithms and the thick data is affected by society and socially constructed knowledge. Societal knowledge is vital in shaping artificial intelligence.

Recently International Criminal Court Prosecutor requested an arrest warrant for Netanyahu for war crimes, and crimes against humanity after the most recent killings of more than 37,700 Palestinians in Gaza, most of them women and children.[43] However, he received wide applause from the United States lawmakers during his speech in US Congress. In contrast, the Turkish parliament adopted a resolution criticising this event with comments such as: "it is regrettable that a democratic institution, instead of restraining Israel's unrestrained aggression, has become a tool for a stage show full of lies that empower and embolden the perpetrators of great crimes against humanity."[44] Considering these instances, injustices seem to become just, according to different norm centers. It is obvious that societal knowledge on a specific issue can be evaluated, and constructed in stark contrast. Illustrated by this instance it can be argued that, on a specific issue, AI can be trained with data of stark contrast. Consequently, it is vital to fairly train AI without biased knowledge and with its own socio-cultural value-based approach.

On the other hand, a worldview has a very important role in peoples' characteristic peculiarities. World view theorists suggest that; as being a culturally organized macro thought and as being a way of thinking about the world, world view defines the self, sets the boundaries of who and what a person is, and influences an individual's norms and values.[45] Religions and philosophies are also often seen as world views such as Islamic World View.[46]

43 Abdelrauf Arnaut, "Netanyahu fears potential ICC arrest warrants for Gaza crimes by July 24", *Anadolu Agency*, https://www.aa.com.tr/en/middle-east/netanyahu-fears-potential-icc-arrest-warrants-for-gaza-crimes-by-july-24/3258740, (28.08.2024).

44 Atakan Çelik, "Turkish parliament adopts resolution that says Netanyahu's speech to US Congress was picture of disgrace", Anadolu Agency, https://www.aa.com.tr/en/turkiye/turkish-parliament-adopts-resolution-that-says-netanyahus-speech-to-us-congress-was-picture-of-disgrace/3287312#, (28.08.2024).

45 William Cobern, "World View Theory and Science Education Research", 19.

46 Cobern, "World View Theory and Science Education Research",18.

Historical experience, according to some social constructivist scholars, illustrates that the obvious beliefs accepted by most people can be experienced as impositions by some groups of people who do not share those beliefs.[47] While social constructivism recognizes the importance of local truths and of respecting diversity, social constructivists emphasizes that every truth is true only within the historical and cultural tradition that constitutes its value.[48] Rather than foreign worldviews and impositions, Turkish and Islamic worldview-based truths and values may be utilized in AI development processes.

Social Construction of Technology Theory's one of the leading adherents professor W. E. Bijker argues that "Technology is socially (and politically) constructed; society (including politics) is technically built, and technological culture consists of sociotechnical ensembles."[49] According to this theory, advancement in technological progress can be described as a social process in which diverse related social groups take part.[50] Accordingly, by exemplifying the consensus conferences, public debates, and citizens' juries in several countries, it is suggested to widen the circles of groups involved in political deliberation about technological choices.[51] Similarly, consensus conferences, public debates, and citizens' juries can be organized in Turkish and Muslim-populated countries to socially construct technology.

A brief examination of the constituents of conceptual frameworks within the Social Construction of Technology Theory may allow researchers a deeper understanding and better utilization of the theory. Four associated constituents of conceptual frameworks can briefly be illustrated[52]:

1. Interpretive flexibility suggests that technology design is an open process that can cause diverse outcomes determined by the social circumstances of development
2. Relevant social groups are the embodiments of specific understandings, every associate of a specific group shares a similar set of meanings, attached to a particular artifact.
3. Closure and stabilization are the continuity of the design process until different interpretations are resolved within the relevant social group.
4. The wider context is wider sociocultural and political background interactions such as interactions with each other, and the rules instructing their relationships.
5. The technological frame is the common cognitive frame that directly or implicitly constructs group member's thinking and strategy formation.

47 Diego Romaioli, Sheila McNamee, "(Mis)constructing social construction: Answering the critiques", 321.

48 Romaioli, McNamee, "(Mis)constructing social construction: Answering the critiques", 322.

49 Wiebe, E. Bijker, "Technology, Social Construction of", 15526.

50 Bijker, "Technology, Social Construction of", 15525.

51 Bijker, "Technology, Social Construction of", 15526.

52 Hans K. Klein, Daniel Lee Kleinmann, "The Social Construction of Technology: Structural Considerations", 29-31.

The socio-cultural and political condition of a social group defines its norms and values, and that in turn influences the meaning given to an artefact.[53] Considering this fact, it can be suggested to take the sociocultural and political conditions of Turkish and Muslim-populated countries as influencers of AI development processes.

Our research will be more explanatory by using the insights from Critical Social Constructivist Theory. These three complementary analytic doctrines of Critical Social Constructivist Analysis can be utilized to enhance our research tools:[54]

- Anything accepted as reality is socially constructed,

- Specific agents or groups of agents involved in the construction and reconstruction of these realities with advantages and relations of power are reflected, enacted, and reified in the constructions of these realities,

- A critical constructivist method denaturalizes dominant constructions, suggests recommendations for the alteration of common sense, and facilitates the envisioning of alternative life-words. Recent developments in world politics and international justice may be interpreted as the reliability of the international system is losing ground and the Turkish and Islamic world may need to construct some of the realities apart from the hegemons of the system.

Denaturalization is an important term for our research. Denaturalization suggests that culturally built meanings of discourses, based on potentially contested codes and representations, are fluid constructs that have the potential for transformation.[55] According to this approach, constituents forming social world meanings such as the fluid body of codes and representations function as the battlefield of discursive constitutions, contestations, and transformative potentials of identities and insecurities.[56] Denaturalization aims to "defamiliarize -literally to make strange- commonsense understandings and so to make their constructedness apparent".[57] It may be the time to rethink discursive constitutions, contestations, and their constructedness within the perspective of Turkish and Islamic values, worldviews, and sociocultural realities.

Decolonial Artificial Intelligence Approach

Ramon Grosfoguel[58] argues that coloniality enables one to comprehend the succession of colonial forms of domination after the expiration of colonial governances, developed by

53 Trevor J. Pinch, Wiebe E. Bijker, "The Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology might Benefit Each Other", 428.

54 Jutta Weldes, Mark Laffey, Hugh Gusterson and Raymond Duvall, "Introduction: Constructing Insecurity" 13.

55 Runa Das, "Critical Social Constructivism: "Culturing" Identity, (In) Security, And The State In International Relations Theory", 978.

56 Das, "Critical Social Constructivism: "Culturing" Identity, (In) Security, And The State In International Relations Theory", 979.

57 Weldes et al., "Introduction: Constructing Insecurity" 20.

58 Ramon Grosfoguel, "Decolonizing Post-Colonial Studies and Paradigms of Political-Economy: Transmodernity, Decolonial Thinking, and Global Coloniality".

colonial cultures and structures in the modern/colonial capitalist world-system. Grosfoguel summarizes the historical process as; "During the last 510 years of the 'Capitalist/Patriarchal Western-centric/Christian-centric Modern/Colonial World-System' we went from the 16th Century 'Christianize or I shoot you', to the 19th Century 'civilize or I shoot you', to 20th Century 'develop or I shoot you', to the late 20th Century 'neoliberalize or I shoot you', and to the early 21st century 'democratize or I shoot you'"[59]. Whereas Alejandro Mayoral Banos[60] argues; that without ignoring the violence of colonialism in history as an epistemic concept, data colonialism studies target to reflect the methods, practices, and oppressions that have been conveyed and evolved into digital technologies.

Artificial intelligence algorithms and related principles or ethics guidelines have been designed and developed mostly by Europeans, and Americans. Algorithm Watch institution developed a project named AI Ethics Guidelines Global Inventory[61]. By exploring the inventory, it becomes obvious that as of April 2024, the overwhelming majority of 173 AI ethics guidelines come from Europe and the United States.

The separation line between Oriental and Occidental worlds, according to Edward Said, was "paradoxically presuppose[d] and depend[ed] on by the West".[62] Similarly, it can be argued that AI data and algorithms that have been in use by the non-Western world, have been produced mostly by Western world data scientists and programmers with the knowledge constructed by western perspective.

In the digital field, coloniality can play roles implicitly or explicitly. Digital-structural coloniality can be obvious via the coloniality of power which may be seen in digital structures in the constructions of socio-cultural imaginations, knowledge systems, and processes of developing and using technology that is based on systems, institutions, and values, continuing from the past and remain unquestioned in the present.[63]

Constituents of artificial intelligence have always been under the influence of historical considerations, motivations, and agendas to some extent. Interestingly, the current model of AI biometrics, which categorizes the masses with reference to biological, genetic, and market forces' determinations, was originally initiated in British colonies to control colonial subjects.[64] Artificial intelligence was initially invented with military motivations within the

59 Grosfoguel, "Decolonizing Post-Colonial Studies and Paradigms of Political-Economy: Transmodernity, Decolonial Thinking, and Global Coloniality".

60 Alejandro Mayoral Banos,"Data Colonialism Is Not A Metaphor: Remembering Colonialism And Why It Matters In The Digital Ecosystem, 15.

61 "AI Ethics Guidelines Global Inventory", Algorithm Watch, https://inventory.algorithmwatch.org (27.08.2024).

62 Edward Said, *Orientalism*, cited in Rachel Adams, "Can artificial intelligence be decolonized?", 191.

63 Shakir Mohamed, Marie-Therese Png, William Isaac, "Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence", 665.

64 Max Hantel, "What is It Like to Be a Human?: Sylvia Wynter on Autopoiesis." cited in Michalinos Zembylas, "A decolonial approach to AI in higher education teaching and learning: strategies for undoing the ethics of digital neocolonialism", 31.

American military-industrial complex, as an amalgamation of racial bias, white universalism, and militarism.[65] It should also so be noted that algorithms can be a subject of oppression against some groups of peoples or communities. Inspired by Elanor Taylor[66], Mohamed, Png and Isaac[67] define algorithmic oppression as the extension of the unfair subordination of a community and the privileging of another, sustained by a "complex network of social restrictions" such as social norms, laws, institutional rules, implicit biases and stereotypes, via automated, data-driven and predictive systems.

By synthesizing the key points of analysis, it can be argued that the AI development approach for Turkish and Muslim communities must be kept secure from digital coloniality and algorithmic oppression.

To understand some of the motivations, considerations, or agendas influencing the west, namely the U.S.A., the capital of artificial intelligence production, a previous analyses of cultural anthropologist Talal Asad, on political culture may be eye-opening. Asad argues that "…American political culture is (as the Bible says of the Chosen People) 'a light unto the nations.' Hence 'democracy,' 'human rights,' and 'being free' are integral to the universalizing moral project of the American nation-state—the project of humanizing the world—and an important part of the way very many Americans see themselves in contrast to their 'evil' opponents."[68] Another eye-opening analysis may be the fact that; by embracing culture and ideology with many respected intellectuals admired by everyone, "The US has taken control of vocabulary, concepts and meaning in many fields. We have to formulate the problems it invents in the words it offers. It provides the codes to decipher the enigmas it created. It has set up many research centers and think-tanks just for this, employing thousands of analysts and experts."[69]

As briefly examined in the previous section, serving as a referent for cultural reform, critical constructivism is a social epistemology providing a strong theoretical framework for deconstructing repressive cultural myths that distort social roles and discursive practices.[70] Only recently it has become obvious that the pervasive myth of Eurocentrism, which has long-shaped condescending attitudes of paternalist benevolence towards industrially-developing non-Western countries, must be deconstructed.[71]

When we evaluate on a micro level, even the reality of everyday life is intersubjective; an individual's 'here' is the 'there' for the others, an individual has a perspective on this common

65 Yarden Katz, *Artificial Whiteness*, cited in Warmhold Jan Thomas Mollema, "Decolonial AI as Disenclosure", 588.

66 Elanor Taylor, "Groups and Oppression".

67 Shakir Mohamed, Marie-Therese Png, William Isaac, "Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence", 666.

68 Talal Asad, *Formations of the Secular*, 147.

69 Asad, *Formations of the Secular*, 151.

70 Peter Charles Taylor, "Mythmaking and Mythbreaking in the Mathematics Classroom", 159.

71 Taylor, "Mythmaking and Mythbreaking in the Mathematics Classroom", 153.

world that is not identical to theirs, an individual's projects differ from and may even conflict with theirs.[72]

Nowadays, there is a call via Decolonial AI Manyfesto for varieties of "decolonial governances" that "will emerge from community and situated contexts, questioning what currently constitutes hegemonic narratives"[73]

Amy Gurowitz[74] argues that identities of states, nations, and all actors are constantly evolving and adapting to new conditions as Roland Suny puts it: "[c]lasses and nationalities are constantly being made and remade, in a complex creation of identities that overlap, reinforce, and undermine each other."[75]

About the method of decolonization, scholars argue that; AI injustices will be fortified if decolonization is addressed as progressive reformations' 'new suit'[76] and it is emphasized to "incorporate local decolonial values to disenclose current value impositions embedded in technology"[77], and it is suggested address decolonizing AI by "opening AI development and deployment for it to transgress the boundaries of Western universalism".[78]

Turkish-Islamic peoples and communities may utilize decolonization strategies in defining their AI agendas. Decolonial AI ethics would aim to construct decolonized strategies and practices of designing and using digital technologies that make a new, more inclusive, and pluriversal humanity with multiple cosmovisions possible.[79] In search for a vision for a decolonial AI perspective, authorities may get inspirations from some AI strategies such as :

1. "historicizing AI and digital technologies as affective, material and political assemblages of coloniality and racism that highlight the need to re-design AI in terms of decolonial ethics;
2. nurturing practices of ethical solidarity towards those who suffer the negative impacts of AI;
3. creating renewed affective and political communities that cultivate decolonial ethics in the development and use of AI".[80]

72 Peter L. Berger, Thomas, Luckmann, *The Social Construction of Reality,* 37.

73 Aarathi Krishnan et al., Decolonial AI Manyfesto, cited in Warmhold Jan Thomas Mollema, "Decolonial AI as Disenclosure", 595.

74 Amy Gurowitz, "The Diffusion of International Norms: Why Identity Matters", 313.

75 Roland Suny, *The Revenge of the Past: Nationalism, Revolution, and the Collapse of the Soviet Union,* 10.

76 Mollema, "Decolonial AI as Disenclosure", 594.

77 Mollema, "Decolonial AI as Disenclosure", 596.

78 Mollema, "Decolonial AI as Disenclosure", 593.

79 Michalinos Zembylas, "A decolonial approach to AI in higher education teaching and learning: strategies for undoing the ethics of digital neocolonialism", 31.

80 Zembylas, "A decolonial approach to AI in higher education teaching and learning: strategies for undoing the ethics of digital neocolonialism", 33.

European Enlightenment has been used as a supreme apparatus in colonization with Eurocentric rule attributing truth only to Western knowledge, just as scientism builds more and more spheres of life on scientific knowledge only.[81] It can be suggested that instead of utilizing the colonial perception of the European Enlightenment, Islamic Golden Age implementations and perspectives may be inspiring for establishing AI alignment with Turkish & Islamic Values. Also, it should be noted that Muslims have suffered from the mischief persons or groups that have ulterior motives of harming and disuniting the community, just as the ones mentioned in the Mascid al-Dirar incident. It is advisable to be cautious against the false-faced persons, groups, and institutions that may have ulterior motives such as dividing or damaging the community.

It will be awakening to re-evaluate historical facts to develop future visions and development targets. Western historicity regarding the non-western world may be inadequate or partial. For example, research on the historical enlightenment facts related to the Turkish and Islamic world, such as *Lost Enlightenment: Central Asia's Golden Age from the Arab Conquest to Tamerlane*[82] may result in the feeling of underestimation[83] of the role of Islam within this enlightenment or emphasis of polarising nationalist approaches that may remind the *Imagined Communities* concept developed by Benedict Anderson.

Also, based on the historical context of colonialism, it can be suggested to learn lessons from rebellion provocation strategies such as the ones used by 'Lawrence of Arabia', but this time considering digital fields.

On the other hand, just because scientism is built on a model of knowledge that is not appropriate to understand those extents of human phenomena that characterize human kinds, decolonization is needed by liberating human phenomena from the restrictive foreign epistemology, adopted from natural sciences.[84] Evidence illustrates that decolonization necessitates algorithmic fairness and apart from scientism, convergence to specific values.

Similar to ELISE European Network of AI Excellence Centres[85] and CLAIRE Confederation of Laboratories for Artificial Intelligence Research in Europe[86], after intense decolonial AI research and innovations, İstanbul may be constituted as the network capital of Decolonial AI Research and Excellence Centres.

Examples of what decolonization of AI may include; "…researchers at DeepMind identifying tactics for de-centering western norms; communities at MozFest developing decolonial

81 Gordana Jovanovic, "Decolonizing Psychology in a Colonized World?", 227.

82 Fred Starr, *Lost Enlightenment: Central Asia's Golden Age from the Arab Conquest to Tamerlane*, Library of Congress, https://www.loc.gov/item/2021690165/, (07.09.2024).

83 Ertuğrul Ökten, "*Kayıp Aydınlanma: Arap Fetihlerinden Timur'a Orta Asya'nın Altın Çağı*, by S. Frederick Starr", 187.

84 Ökten, "*Kayıp Aydınlanma: Arap Fetihlerinden Timur'a Orta Asya'nın Altın Çağı*, by S. Frederick Starr", 227, 228.

85 ELISE European Network of AI Excellence Centres, https://www.elise-ai.eu, (04.09.2024).

86 CLAIRE Confederation of Laboratories for Artificial Intelligence Research in Europe, https://claire-ai.org/#, (04.09.2024).

alternatives to voice technology and facial-recognition technology; and the Indigenous Protocol and AI Working Group exploring how indigenous epistemologies and ontologies can contribute to the development of AI…".[87] Therefore, it seems necessary to search for fairness and inclusion of Turkish and Islamic values in formulating optimal AI policies and strategies.

Knowledge 4 All Foundation has prepared a map[88] of talents, players, knowledge, and co-creation hot spots in AI in emerging economies. By using these kinds of AI ecosystem maps, lessons and decolonization of AI study results must be shared with actors within the AI community.

Algorithmic Fairness and Alignment with Turkish-Islamic Values

During the days of rebuilding an international order after World War II, in his seminal work, *The Great Transformation* (1944), Karl Polanyi suggested protecting human and natural substances as well as business organizations against the ravages of the satanic mill of market economy[89]. He emphasized that; without the the protective covering of cultural institutions, individuals would perish from the impacts of social exposure; they would die being the victims of acute public disorder through vice, perversion, crime, and starvation[90]. Learned lessons from previous experiences may inspire us to suggest developing a 'fairness in alignment with values' approach as a neo-protecting covering.

Fairness in artificial intelligence can be described as the elimination of bias or discrimination in AI systems as a deliberate and intentional goal through techniques such as re-sampling, pre-processing, or post-processing the data.[91] IBM's AI Fairness 360 Tool Kit[92], Google's What-If Tool[93], and Microsoft's Fairlearn[94] are some of the tools that can be used to mitigate discrimination and bias.

Since throughout history, various nations have been formed by the Turks, it has been argued that claiming the name "Turk" as any nation's unique name is irrational, just as in the case of a father giving all his treasure to one of his children, excluding the other ones[95].

87 Mahlet Zimeta, "Why AI must be decolonized to fulfill its true potential", Chatham House, https://www.chathamhouse.org/publications/the-world-today/2023-10/why-ai-must-be-decolonized-fulfill-its-true-potential (28.08.2024).

88 "Global South map of emerging areas in Artificial Intelligence", Knowledge 4 All, https://k4all.org/project/aiecosystem/, (28.08.2024).

89 Karl Polanyi, *Great Transformation*, 73.

90 Polanyi, *Great Transformation*, 73.

91 Emilio Ferrara, "Fairness and Bias in Artificial Intelligence: A Brief Survey of Sources, Impacts, and Mitigation Strategies", 8-11.

92 "AI Fairness 360: Understand and mitigate bias in ML models", The Linux Foundation, https://ai-fairness-360.org, (28.08.2024).

93 "What-If Tool", Google, https://pair-code.github.io/what-if-tool/, (28.08.2024).

94 "Fairlearn", Microsoft, https://github.com/fairlearn/fairlearn, (28.08.2024).

95 Nurettin Topçu, "Önsöz", 25.

Therefore precautions against the misuse of information regarding varieties among Turkish peoples and varieties among Muslim peoples must be taken.

The name of a conference paper, published after the Artificial Intelligence, Ethics and Society Conference is *Fairness in Agreement With European Values: An Interdisciplinary Perspective on AI Regulation*. This is an inspiring name that conjures up the idea of developing AI fairness in agreement with Turkish-Islamic Values. In the *Fairness in Agreement With European Values* paper, it has been suggested that; due to undesired effects and consequences, the European Union has developed new regulations, ex-ante reviews, and ex-post monitoring on AI systems.[96] In this work, it has been suggested that the European Union accepts human beings must be at the center of technological development and asserts AI regulation for the protection of human dignity and fundamental rights.[97] Actually, European, American, or Western, as a whole stories regarding the principles of protection of human dignity and fundamental rights have begun to be hardly believable, especially for some of the Muslim communities. For instance, the principle of laïcité which was about guaranteeing freedom by separation of church and state and free exercise of religion, had transformed to include the demand that persons make their faith a completely private issue[98]. As an illustration, "hijab-wearing female athletes, have been excluded from teams, banned from practicing their sport, even from the 2024 Paris Olympics."[99] Similar anti-Muslim policies can be observed in various reports such as European Islamophobia Reports.[100] Also, the U.S. continues to provide military aid to Israel despite civilian casualties in Gaza, despite the fact that "a State Department report in May said Israel's use of US-provided weapons in Gaza likely violated international humanitarian law."[101] Considering the fact that regarding implementing norms, Western double standards have today become too obvious, it is vital to consider putting Turkish-Islamic notions, and values in the center of real fairness for Turkish-Islamic communities and peoples.

In search of decolonial AI alignment, IBM researcher Kush Varshney suggested an approach by utilizing ideas from the moral philosophical tradition of Hinduism.[102] Similarly, it can be

96 Alejandra Bringas Colmenarejo, Luca Nannini, Alisa Rieger, Kristen M. Scott, Xuan Zhao, Gourab K. Patro, Gjergji Kasneci, Katharina Kinder-Kurlanda, "Fairness in Agreement with European Values: An Interdisciplinary Perspective on AI Regulation", 107.

97 Colmenarejo et al. "Fairness in Agreement with European Values: An Interdisciplinary Perspective on AI Regulation", 107, 108.

98 Rokhaya Diallo, "What has 20 years of banning headscarves done for France?", The Guardian, https://www.theguardian.com/commentisfree/2024/apr/12/ban-headscarves-france-secularism-exclusion-intolerance, (30.08.2024) .

99 Diallo, "What has 20 years of banning headscarves done for France?"

100 *European Islamophobia Report*, https://islamophobiareport.com/en/index.php/editos/, (30.08.2024).

101 Islam Dogru, "US continues to provide military aid to Israel despite civilian casualties in Gaza", Anadolu Agency, https://www.aa.com.tr/en/middle-east/us-continues-to-provide-military-aid-to-israel-despite-civilian-casualties-in-gaza/3268761, (30.08.2024).

102 Kush R. Varshney, "Decolonial AI Alignment: Openness, Viśesa-Dharma, and Including Excluded Knowledges".

argued that Turkish-Islamic Values may be utilized for decolonial AI alignment. Interestingly, in a research paper titled *Cultivating Ethical AI Development Through Cross-cultural Ancient Wisdom,* it has been suggested that the Arabic educational system originating from Madrasahs taught logic, grammar, rhetoric, and sciences which led to the advancement of critical thinking and analytical skills, pertinent to AI ethics values like Transparency and Accountability[103]. Similarly, it can be argued that Turkish-Islamic Wisdom may be utilized for cultivating AI development.

Additionally, it is essential for Turkish and Muslim-populated countries to collaborate on AI policy and strategies just as the European Union's cooperation strategies in the field of AI. Another example of cooperation in the field of AI may be the cooperation between the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China, the Republic of South Africa, Iran, Egypt, Ethiopia, and the United Arab Emirates (BRICS). The BRICS countries decided to establish a joint alliance for the development of technologies based on AI in 2019.[104] On the other hand, collaboration of Turkish and Muslim-populated countries in AI policies may include protesting unjust policies and practices resulting in misuse or abuse of AI technologies. As an illustration, regarding China, claims of malpractices such as[105]; building "digital dossiers for each Muslim, slotting them into finely tuned categories of trustworthy, normal and untrustworthy" or "automated policing of Turkic Muslim bodies using biometric markers of racial difference", can be examined and protested via strategies such as AI diplomacy. Regarding the prevention of misuse or abuse of AI technology, European Union AI Act provisions may be inspiring. For instance, the EU AI Act prohibits social scoring, biometric categorisation systems, subliminal, manipulative, or deception techniques.[106]

Brief Notes on Turkish Islamic Values

"One cannot remain a Muslim outside the '*umma* of Islam,

a Buddhist outside the *sangha*, and probably not a Hindu anywhere outside India"[107].

All arguments and facts considered algorithmic fairness within the core approach of alignment with Turkish and Islamic Values constitute the core necessity for Turkish and Muslim-populated countries. Defining or evaluating Turkish and Muslim values for various AI systems is beyond the scope of this research but some of the verses of the holy Qur'an and some hadiths will be briefly illustrated for inspiration.

103 Younas, Ammar, Zeng, Yi, "From Confucius to Coding and Avicenna to Algorithms: Cultivating Ethical AI Development Through Cross-cultural Ancient Wisdom".

104 Damian Cyman, Elizaveta Gromova, Edvardas Juchnevicius, "Regulation of Artificial Intelligence In BRICS and the European Union", 94.

105 Darren Byler, "Digital Turban-Head: Racial Learning and Policing Muslims in Northwest China", 123.

106 "EU Artificial Intelligence Act", Future of Life Institute, https://artificialintelligenceact.eu/high-level-summary/, (02.09.2024).

107 Peter L. Berger, Thomas, Luckmann, *The Social Construction of Reality,* 178.

In a world, where humanoid robots[108] will soon emerge and in a world where tech companies implant brain chips and planning to implant millions of more people over the next decade with brain chips[109], verses of the holy Qur'an can illuminate the path in the unforeseeable future. The translations of the meanings of the Qur'an will possibly fall short in conveying the transcendent meanings, The original Qur'anic text[110] must be read but below, some parts of the translations[111] will be presented to give some ideas on topics that may be related to values:

- Allah grants Hikmah(wisdom, knowledge, understanding) to whom He pleases, and he, to whom Hikmah is granted, is indeed granted abundant good (2:269)
- Successful indeed are the believers. Those who offer their prayers with all solemnity and full submissiveness. And those who turn away from Al-Laghw (dirty, false, evil vain talk, falsehood, and all that Allah has forbidden). And those who pay the Zakât. And those who guard their chastity. Those who are faithfully true to their Amanât (all the duties which Allah has ordained, honesty, moral responsibility, and trust) and to their covenants (23:1,2,3,4,5,8).
- …Indeed, the most noble of you in the sight of Allah is the most righteous (pious) of you. Verily, Allah is All-Knowing, All-Aware (49:13).
- … Indeed, Allah loves those who act justly (60:8).
- [He] who created death and life to test you [as to] which of you is best in deed… (67:2).
- And if all the trees on the earth were pens and the sea (were ink wherewith to write), with seven seas behind it to add to its (supply), yet the Words of Allah would not be exhausted…(31:27).
- … Every person is a pledge for that which he has earned (52:21).
- And be not like those who forgot Allah (i.e. became disobedient to Allah), and He caused them to forget their own selves, (let them forget to do righteous deeds)…(59:19).
- And whatever misfortune befalls you, it is because of what your hands have earned. And He pardons much (42:30).
- Do you think that you will enter Paradise before Allah tests those of you who fought (in His Cause) and (also) tests those who are the patient (the steadfast)? (3:142).

108 "Elon Musk gives update on when Tesla will use Optimus humanoid robots", New York Post, Reuters, https://www.aol.com/elon-musk-gives-tesla-optimus-165011181.html, (04.09.2024).

109 Anthony Cuthbertson, "Elon Musk wants to implant millions of people with Neuralink brain chips", *Independent*, https://www.independent.co.uk/tech/elon-musk-neuralink-human-trials-b2600058.html, (04.09.2024).

110 Kur'an-ı Kerim, Diyanet İşleri Başkanlığı, https://kuran.diyanet.gov.tr/mushaf, (12.09.2024).

111 "Saheeh International Translation and Al-Hilali &Khan Translation", Quran.com, https://quran.com; Diyanet Kur'an Kütüphanesi, https://kuran.diyanet.gov.tr/kutuphane, (12.09.2024).

- And certainly, We shall test you with something of fear, hunger, loss of wealth, lives and fruits, but give glad tidings to As-Sâbirûn (the patient) (2:155).
- And if you obey most of those on the earth, they will mislead you far away from Allah's Path. They follow nothing but conjectures, and they do nothing but lie (6:116).
- … perhaps you hate a thing, and it is good for you, and perhaps you love a thing and it is bad for you. Allah knows but you do not know (2:216).
- And this life of the world is only an amusement and a play! Verily, the home of the Hereafter- - that is the [eternal] life, if only they knew (29:64).
- … whoever follows My guidance will neither go astray [in the world] nor suffer [in the Hereafter] (20:123).
- They (think to) deceive Allah and those who believe, while they only deceive themselves, and perceive (it) not! (2:9).
- And when it is said to them, "Do not cause corruption on the earth," they say, "We are only peace-makers." (2:11).
- … They have hearts with which they do not understand, they have eyes with which they do not see, and they have ears with which they do not hear…(7:179).
- And prepare against them whatever you are able of power and of steeds of war by which you may terrify the enemy of Allah and your enemy and others besides them whom you do not know [but] whom Allah knows…(8:60).

The whole of the Qur'an is full of teachings on values but the scope of this research is limited. Also, sayings of the Muslim Prophet Muhammed (p.b.u.H.) may be utilized for inspiration:

The Messenger of Allah (p.b.u.H.) said:

"Whoever takes a path upon which he seeks knowledge, then Allah makes the path to Paradise easy for him. And indeed the angels lower their wings in approval to the one seeking knowledge. Indeed, forgiveness is sought for the knowledgeable one by whomever is in the heavens and whomever is in the earth, even the fish in the waters. And the superiority of the scholar over the worshiper is like the superiority of the moon over the rest of the celestial bodies. Indeed, the scholars are the heirs of the prophets, and the prophets do not leave behind gold or silver. The only legacy of the scholars is knowledge, so whoever takes from it, then he has indeed taken the great share."[112]

112 Presidency of Religious Affairs, *Islam Through Hadiths 1*.

I have left two things with you. As long as you hold to them, you will not go the wrong way. They are the Book of Allah and the sunna (path) of His Prophet.[113]

"Allah does not take away knowledge by taking it away from (the hearts of) the people, but takes it away by the death of learned religious men until none of the (learned religious men) remains. Then people will take as their leaders ignorant persons who when consulted will give their judgement without knowledge. So they will go astray and will lead the people astray."[114]

"Rights will be given to the deserving on Judgement Day, such that the hornless sheep would receive what it is owed from the horned sheep."[115]

"If anyone acquires knowledge in order to seek the face of Allah (in paradise), but he acquires it only to get some worldly advantage, he will not experience the fragrance of Paradise on Resurrection Day."[116]

"He who introduced some good practice in Islam, which was followed after him (by people), he would be assured of reward like one who followed it, without their rewards being diminished in any respect. And he who introduced some evil practice in Islam, which had been followed subsequently (by others), he would be required to bear the burden like that of one who followed this (bad practice) without their sins being diminished in any respect."[117]

Various teachings of Prophet Muhammed may provide inspiration for AI programmers which may be subject to another extended research.

Furthermore, empowered by faith, creed, and morals and experienced within the three continents, "Anatolian Yeast Worldview" has been providing knowledge, intelligence, understanding, and wisdom throughout the various generations via principles such as;[118]

- Adore Almighty Allah,
- Love the prophet Muhammed (p.b.u.h) sincerely and walk through his humanity path with love,
- Show respect and love to the parents and ancestors (also to the fellowman and the relatives and the humans and all creatures),
- Do goodness, work hard, and produce for motherland's, nation's and ummah's goodness,
- Always protect unity and solidarity (fraternity).

113 *Islam Through Hadiths 1*, 447.
114 *Islam Through Hadiths 1*, 461.
115 *Islam Through Hadiths 1*, 631.
116 *Islam Through Hadiths 1*, 477.
117 *Islam Through Hadiths 1*, 743.
118 Ahmet Nedim Serinsu, "Mevlana Hz. İnsan Hazinemizdendir", 25, 26.

Conclusion

Considering the fact that innovations brought us to the eve of technological rebuilding of international order, learned lessons from the experiences of rebuilding the international order after the second world war, allows us to suggest the 'fairness in alignment with values approach' as a neo-protective cover for the communities against the possible negative outcomes of the technological innovations. The world system, built by the so-called developed countries has brought Turkish and Islamic communities no more than to the status of being so-called developing countries struggling with various kinds of crises. One of the most important reasons for this result may be found in the most prominent message of Liberty song written by John Dickenson, the founding father of the U.S.: "By uniting we stand, by dividing we fall."[119] The 'developed' are the united, and the 'developing' are the divided.

Today, the multipolar world is on the eve of a new transformation, and Turkish and Islamic countries must trust their own truths and lean on their own values. They need to construct their own value-based technological and sociological development models such as Anatolian Yeast Worldview. Universities and Institutions within the Turkish and Islamic world must develop their own knowledge and data archives by evaluating foreign examples such as The Association of Religion Data Archives, but with their own reliable information and by utilizing various other fields of information. Counter-disinformation centers must be established to protect reliable information and to prevent the spread of manipulative or deceptive information. Reliable chatbots and other artificial intelligence programs must be developed to provide reliable information that is easily accessible. History teaches us that Turkish and Islamic civilizations have enlightened the world and experienced the golden age. We argue that Decolonial Artificial Intelligence; and Algorithmic Fairness in Alignment with Turkish and Islamic Values may be a step forward for the rebirth of a united prosperous civilization. By emphasizing the need to construct a value-based technological development model, the last message of this work will be a translation from the miraculous Qur'an: *And obey Allâh and His Messenger, and do not dispute (with one another) lest you lose courage and your strength departs, and be patient. Surely, Allâh is with those who are the patient*[120].

119 "The Liberty Song 1768", Dickinson College Archives and Special Collections, https://archives.dickinson.edu/sundries/liberty-song-1768, (20.09.2024).

120 Quran (8:46), *Quran.com* (September, 20, 2024) https://quran.com.

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