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Yapay Zekanın Toplumsal Sorunlara ve Çözümlere Etkisi: Sayısal Uçurum ve Sömürü Bağlamında Bir Analiz

The Impact of Artificial Intelligence on Social Problems and Solutions: An Analysis on The Context of Digital Divide and Exploitation

Ahmet EFE, Dr., IFRC Denetim Birimi, Ankara, Türkiye, icsiacag@gmail.com
ORCID ID: https://orcid.org/0000-0002-2691-7517

Öz

Yapay zekâ (YZ) teknolojilerinde devam eden ilerlemeler, yenilikçi medya araçları ve hızlı iletişim teknikleri aracılığıyla modern toplumun ekonomik, kültürel, dini ve politik yaşamının her zamankinden daha kapsamlı yönlerini içermektedir. YZ'yı teknolojik araçların, ağların ve kurumsal sistemlerin bir parçası olarak ele aldığımızda yenilikçi bilgi teknolojileri (BT) sosyal sorunların çözümünde etkili olabilir. Böyle bir zihniyetle literatür bilgisi ve sektörel araştırma raporları üzerine yapılan bu çalışma, YZ'nın etik anlayışlarını ve kavramsal kapsamını genişleterek sosyal ilişkiler üzerindeki genişleyen rolünü ve etkisini yakalamayı amaçlamaktadır. Çalışmada, YZ'deki son yenilikleri benzeri görülmemiş sosyal dönüşümlerin ve yeni zorlukların habercisi olarak ele almak gerekip gerekmeyeceği sorusuna cevap aranmaktadır. Bu makale, birçok tartışmanın bitmeyen yenilikçi teknolojik determinizmine meydan okuyarak ve ilgili konuları sosyolojik ve dini bir yaklaşımla yeniden çerçeveleyerek sorunu eleştirel olarak değerlendirmektedir. Çalışma, algoritmik modellerin özgüllüğü ve ekolojik geçerliliği arasındaki ilişkiyi teorik olarak tartışmanın önemine ve YZ modellemesinin sosyal fenomenlerle ilgilenen bilim insanlarının metodolojik yaklaşımlarına nasıl önemli bir katkı olduğuna odaklanmaktadır.

Abstract

Continued advances in artificial intelligence (AI) technology innovations include ever-wider aspects of modern society's economic, cultural, religious, and political life via new media tools and communication techniques. Considering AI as part of technological tools, networks, and institutional systems, innovative technology can be essential in solving social problems. With such a mindset, this study done on literature knowledge and sectoral research reports aims to capture AI's expanding role and impact on social relations by expanding its ethical understandings and conceptual scope. The study tries to answer, if recent innovations in AI herald unprecedented social transformations and new challenges. This article critically assesses the problem, challenging the unending innovative technological determinism of many debates and reframing related issues with a sociological and religious approach. The study focuses on the importance of theoretical discussing the relationship between specificity and ecological validity of algorithmic models and how AI modeling is an essential contribution to the methodological approaches of scientists interested in social phenomena.

Anahtar Kelimeler Keywords

Yapay Zeka, Sosyal Sorunlar, Sosyal Meya, Teknolojik Etkileşim, Sosyal Yapay Zeka
Artificial Intelligence, Social Problems, social media, Technological Interaction, Social AI

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Introduction

AI, which performs well when trained with large data sets, continues to operate in many areas such as e-commerce, transportation, education, health, e-government security, and the defense industry. Although the primary focus in the development of these systems is the performance and competence exhibited by the technology, in recent years, concerns and problems have been increasing in the axes of "*responsibility, bias, justice, security, transparency, and sustainability*" domains of AI. Social media platforms, mobile applications, search engines, virtual assistants, and security systems are among the areas where AI is included in the daily life of users, and its social impact is gradually expanding.

Since AI applications affect societies increasingly rapidly day by day, most researchers and commentators have still a naive, excited optimism, as if these applications will not be in the hands of the dominant powers as toys. The situation is like the contrast between the theories of harmony and conflict in the social sciences. Optimists are more likely to benefit from adaptability, success, etc., than AI. This led to the emergence of a new field called *'AI sociology'*. This concept is the problem of whether AI will deepen or repair existing social inequalities, and age, gender, race, religion, ethnic group, etc. It is necessary to deal with data justice (injustice) towards different social segments on the axis. Since AI, algorithms, and big data are not immune to marginalization, they can also be marginalized or used to marginalize people.

Among the essential questions to be answered are which actor is responsible for the social effects in the problematic and erroneous results in AI systems. AI systems surely bring a different dimension to the human-machine relationship by bringing technological requirements, social expectations, and human factors in effectiveness, economy and efficiency of production and usage stages. Precisely, AI cannot be considered separately from social life, social interaction, and order. While supporting technology development, it is critical to implement it through concrete principles, paying attention to the steps of responsibility, bias, fairness, security, and transparency of AI algorithms. As researchers, academics and activists expressed their concerns about discriminatory, malicious, and deceptive practices with the rise of AI systems, companies that produce new technology have also started to develop ethical principles in the research, development, and implementation phases. However, the number of technology companies that implement these regulations with concrete steps is few. Here it is assumed that the cutting-edge technology with the advent of AI applications, will inevitably be pervasive producing global and humanitarian consequences. The study tries to answer, do recent innovations in AI herald unprecedented social transformations and new challenges? This article critically assesses the problem, challenging the unending innovative technological determinism of many debates and reframing related issues with a sociological and religious approach. The study focuses on the importance of theoretical discussing the relationship between specificity and ecological validity of algorithmic models and how AI modeling is an essential contribution to the methodological approaches of scientists interested in social phenomena. Therefore, the possible roles of innovative technologies in the solution of social problems are emphasized; the subject of Colonialism in Algorithmic Systems is questioned, the role of AI in the development of a social world is highlighted, and AI Principles Compliance Measures are recommended in conclusion.

Ai In Social Domain With Ethical Problems

Technological convergence occurs in significant innovations in the social convergence and transformation of rulers and norms on a global scale, which emerged through the interaction

of tendencies towards hierarchy, hegemony, and heteronomy (Chitty & Dias, 2017). Convergent technologies create new spaces for virtual social interaction and influence based on hard and soft power. It has been found that by adding a few robots that behave like selfish people, the same groups that were altruistic and generous to each other before are now directed to behave selfishly by robots (Varshney & Mojsilovic, 2019). Since AI is a tool of technical progress and technological development, it can be used in both good and bad works like others. It is no different from preventing companies from polluting our water sources, the damage added to our food additives due to our DNA and immune systems, or how we prevent individuals from emitting harmful cigarette smoke (Boden, 2018).

The effort to transfer intelligence and learning, which is the most important part of an individual's survival skill, to machines through algorithms depending on technological developments is at the focus of current discussions in the fields of social sciences and engineering. It is inevitable that human-developed machines and robots will play a bigger role in our daily lives. In addition to the fact that most of the public services are now offered via smart (mobile) phones, different software such as driving tracking program in cars, drug use and automatic payment system in pharmacies, digital footprint tracking system with internet connection from planting the crop to purchasing by the consumer have become essential (Tellan,2020). The traces left in the digital environment appear as data mining, which is an important method of obtaining information. Raw data obtained from databases or digital media and every trace we leave in digital media has the potential to turn into meaningful information by processing with various statistical methods. The use of the obtained data in a wide variety of sectors makes this area important (Özkan, 2020).

In the literature, two general paradigms are dominant in the sociology of AI. It seems possible to evaluate the studies in the first group as a humanist approach in the context of the general epistemological approach on which they are based. Studies carried out in the context of this approach consider AI as a scientific, technical, and cultural phenomenon and focus on the processes of AI in the fields of production and use. Classifying the studies in the second group seems meaningful within the post-humanist approach. These studies bring back the necessity of incorporating non-human things into the production of sociality in AI through the long-existing definition of sociability and agency discussions in sociology. Although the approaches of the humanist tradition to technology and the contributions of the ontological and epistemological foundations on which these approaches are based to the sociology of AI touch upon extremely important points in this field, it should be noted that AI is limited in analyzing its function as a social actor by its nature (Adaş & Erbay, 2022).

Although there are special units and organizations with significant research, production and even export capacity in Turkey within the scope of artificial intelligence, especially software programs, it is not possible to say that this issue is among the priorities of social sciences and even finds a place among the agenda items (Yalçınkaya, 2019). Some standard approaches to AI have been developed to mitigate social problems from AI applications and processes. For instance, "AI Social" aims to build a more responsible, transparent, and sustainable future by bringing together academics, engineers, software developers, startups working in AI, and social scientists studying the social dimensions of AI (aisocial.org). Although AI systems are promising in terms of fast and effective processing power in big data, the developments in this field should be evaluated together with the social layers. In line with this purpose, Social AI emerges as an interdisciplinary platform that aims to understand, analyze, and find solutions to the social and cultural effects and ethical problems of AI systems in Turkey. Aiming to bring together social

scientists and people who produce and develop AI systems to build a highly socially responsible, transparent, and sustainable future, Social AI conducts research projects to understand the social effects of AI. There are many articles on the relationship of AI with society and culture that provide guidance to initiatives operating in this field to develop social and ethical principles.

Possible Roles Of Innovative Technologies In Solving Social Problems

Technology helps address severe social problems worldwide and may not benefit even the most vulnerable in society (Toesland, 2018). As humanity has entered an era of ultra-intellectualization, it tries to use AI to guide innovation and development. Now, AI has begun to bear fruit of its exponential growth, which is expected to last quite a long time (Nagy, 2020). It is necessary to examine how innovative solutions can be brought with AI to the following fundamental problems:

Child Abuse

Cross-cultural studies also reveal that children are more vulnerable to maltreatment in many countries, such as those in poor health, women, unwanted children, and those born in harsh conditions or with unworthy characteristics or under conditions of rapid socioeconomic change (Finkelhor & Korbin, 1988). Child abuse is defined as that portion of the harm done to children resulting from prohibited, imminent, and preventable human activities, making it applicable across cultures and national borders. Technological advances are making the dissemination of information more accessible than ever and enabling the widespread sharing of child sexual abuse materials online. The US-based National Center for Missing and Exploited Children has seen a significant increase in the number of child sexual abuse cases which was 450,000 in 2004, reached 25 million in 2015, and is seen as one of today's most urgent social problems. Founded in 2009 by actors Demi Moore and Ashton Kutcher, *Thorn* [1]*: Digital Defenders of Children* is a nonprofit committed to ending child sexual exploitation and trafficking through innovative technological tools. In 2017, Thorn helped police identify 5,791 sex trafficking victims with Spotlight, the web-based AI tool used by more than 5,000 US law enforcement officials (www.thorn.org).

Hunger and Poverty

As a gift from Allah, since the annual agricultural crop is seven times the total population, there is no food problem globally, but there is a hunger problem. Food and hunger are interrelated, and it may be easy to argue that an increase in food production will reduce hunger, malnutrition, and hunger. However, unfortunately, the connection is not so simple (Griffin, 1987; Mohamed et al., 2020). There can be many cases where hunger does not increase or decrease despite increasing the per capita food supply. While the money spent on eliminating obesity is enough to feed more than 800 million people or 11 percent of the world's chronically hungry population, the gap between the richest and the poor is increasing. Although enough food is produced each year to feed all people on the planet, a significant amount is still wasted, even in developing countries, and sharing with compassion is dwindling. Therefore, the use of innovative technology is inevitable. From using agricultural devices connected to the internet of the things (IoT) to gain insight into crop health to improve yield quality to reducing the amount of lost and damaged foodstuffs by applying IoT monitoring devices across the entire

1 For the Thorn report on one of the relationships between technology use and abuse, see: https://www.thorn.org/wp-content/uploads/2015/02/Survivor_Survey_r5.pdf

distribution ecosystem, data-driven insights can be provided. They can play a role in eradicating world hunger. According to market researcher IHS Markit, the total number of IoT devices is predicted to grow from 27 billion in 2017 to 125 billion in 2030, creating an IoT network with unprecedented levels of coverage (IHS, 2017).

Modern Slavery

In the past, people who were captured due to wars and usurped people could be bought and sold like a commodity in the slave market. However, it can be said that even if it was officially banned with the development of civilization, human rights, and law, slavery could still be continued in modern societies, even if it is not widespread. It has been found to exist in more than 165 countries in developing and developed worlds. The UK government established the Modern Slavery Act in 2015 and Australia in 2018 to combat this global injustice. In other words, while someone gains an advantage, others are left to need the help given to the profit community (Landman & Silverman, 2019). More than 40 million people around the world are enslaved today. Eliminating modern slavery has been particularly challenging due to its near-invisible nature – until recently. Experts from the Code 8.7 community[2] have turned to artificial intelligence (AI) and computational science to fight modern slavery, along with human trafficking and forced child labor (ITU, 2021).

Digital Divide

Since AI policy has become the most critical area of government policy, national AI strategies are determined in almost all developed countries, and serious investments are made. Developing countries such as Turkey[3] are also taking serious steps in this regard. An accelerated arms race will unfold among key countries and will see increased protectionist state action to support national champions, curb foreign takeovers and attract talent (Hogarth, 2018). Because being able to use innovative digital technologies indicates the digital divide in a social sense, there are significant gaps between countries at the point of having digital technologies. It is of great importance in terms of balances between countries. In this sense, various strategies are applied for domestic and national solutions. The digital divide represents a significant societal problem that accompanies the spread of the internet in the US and other countries. While the digital divide is the difference between people who use the internet in the simplest sense and those who are relatively disadvantaged from the internet (Rogers, 2001), it also concerns technical competence between nations and companies. While the current digital divide is a significant problem, a lack of exposure to AI technologies can increase this gap.

Animal testing

Animal testing is still widely used in drug testing, where governments, animal welfare associations, and other nonprofits pressure big pharmaceutical companies to reduce the number of tests. Especially after COVID-19, the claims that people were used as subjects in vaccines confused people, and it is known that a specific group of people gave up being vaccinated and resisted. Although these issues are challenging to discuss, progress is likely to occur with an ethically consistent, evidence-based approach (Ferdowsian & Beck, 2011). If AI-based technological applications are developed for alpha, beta, and gamma phases, this problem will significantly benefit humans and animals.

2 Code 8.7 is a community that develops and applies AI-powered and survivor-informed anti-slavery solutions. See: https://delta87.org/code87/

3 For Turkey National AI Strategies, see: https://cbddo.gov.tr/uyzs

Key Issues and Paradigms of AI Sociology

The origins of the sociological interest in AI stem from these veins of the sociology of technology. It can be said that the interest in AI has accelerated in sociology in the recent period (Liu, 2021). It is possible to classify the discussions and studies in sociology on AI in two general paradigms: First, the humanist (human-centered) approach, which considers AI as a social and cultural construction, a social problem area, and secondly, technology in general and AI as a social agent. While the humanist approach focuses on the concept sets of classical sociology and the production, application, and social effects of AI, it reveals that this field is social at a level that cannot be reduced to mere engineering and design itself. The post-humanist approach, on the other hand, has long criticized the classical perspective that conceptualizes sociality as human-centered, but it should be noted that AI technology has a quality that strengthens the theoretical position of the post-humanist approach in this paradigmatic discussion. It can be said that the developments in the field of AI with human-like features strengthen the theoretical position of post-humanist approaches, which have long argued that non-human things should be considered as 'agents' playing a role in the production of sociality and deepen and deepen the paradigmatic debate in social sciences. This approach considers it as a technical and cultural field and subjects its basic features to sociological examination. These studies evaluate AI as a scientific field in the context of power struggles. Debates in this field, whether objective results can be reached based on subjective knowledge with social and cultural foundations, the effect of the cultural codes of scientists who carry out AI research on this technology and the effect of cultural bias on the reproduction (Obermeyer et al., 2019). Studies that deal with AI in a technical context, on the other hand, focus on the potential social problems that can be experienced with the application of AI rather than its production and science, mostly with the development of automation and robotics industry and its entry into business life. When the sociology literature is reviewed, it is seen that the studies on AI as a technique and application are basically the transformation of professions and potential unemployment and new job opportunities of AI in the legal context AI and new ethical discussions (Rhee, 2018; Ford, 2020; Van der Linden, 2015). These studies are aimed at defining AI as a social problem and commenting on its results. Criticisms that a sociology in this sense, which deals with AI as an application and technique, are based on an extremely instrumental place, and that such an instrumentalization reduces AI to a methodological tool used in the statistical and textual parts of sociological analysis (Mylnar et al., 2018).

Another important area of sociological studies dealing with AI as a technique is algorithms, which is one of the basic working principles of AI and revealing their functions in the reproduction of social inequalities. Simply, the algorithm, which can be defined as the decision-making component of AI, directs what action it will respond to and ensures that the data loaded on AI gains a purpose. They revealed that the engineers who code the algorithms are the carriers of their values, therefore, AI is far from being an objective technology, and that it is political enough to take an active role in the reproduction of social inequalities (Beer, 2017; Broussard, 2018; Katz, 2020; Joyce et al., 2021). Algorithms that impose on us what we will see, hear and know, and therefore are able to penetrate social life in many areas from what we like or dislike to whom we associate with a technocracy-led form of socialization that conceals the fact that they are constantly confronting us, that they are value-laden and political, that in a sense they are means of reproducing social inequalities, that technology is rendered incomprehensible and free from questioning, and just like Marx's concept of ideology, it is a concept that covers reality and keeps it out of sight. it is conceptualized as a 'black box society'. In this context, an AI sociology should be based on the question of who provides the data and financial resources

to AI developers, and should focus on the questions of where, when, how and for whom AI was developed (Joyce et al., 2021). The third approach, unlike scientific and technical AI approaches, focuses on the cultural construction process of AI, not in the context of scientific and technical applications, but in a broader social context, and focuses on its results such as AI-oriented new trends, processes and relationships that emerge because of this cultural construction (Liu, 2021). It is seen that the research in this field is mainly focused on constructivism and Marxism. Studies based on the constructivist approach aim to reveal the differences in the interpretation and use of AI, which is a technological phenomenon, in the context of different cultural groups, based on the social construction of reality, and therefore, to reveal that technological phenomena are essentially social phenomena (Eynon & Young, 2021; Adaş & Erbay, 2022).

Colonialism in Algorithmic Systems

Intelligent systems are hierarchically related infrastructures that support the goals of a composite structure, combined with goals operating in an environment. In any simple, intelligent system, a coordinating infrastructure receives information from inside and outside and issues directives that make decisions and shape responses (Easton 1965; von Bertalanffy, 1972). The current world order has been defined as a weak world confederation rather than a federation that accepts collective rule-making that establishes a system of government (Chitty & Dias, 2017).

Networked systems and devices we use to create digital spaces that tend to be spaces of extraction and exploitation and thus digital-regional colonial sites, upon which the idea of the Metaverse put forward by Facebook is based. New value areas are produced that can be owned and exchanged, such as virtual homes, assets, land, property, and even spouses and children. Emerging theories of data/information colonialism (Ricaurte 2019; Couldry & Mejias, 2019a) and data/information capitalism (Zuboff, 2019) recognize this nature of historical continuity and the innovative role of data as a material resource used for economic expansion. While analyzing the colonialism of technological power through data, Ricaurte examined data-centered epistemologies as an expression of colonialism of power, stating that excluding people from the social order denies the existence of alternative worlds and epistemologies and threatens life on Earth (Ricaurte, 2019). Couldry and Mejias (2019b) argued that it further expands the continuum of possibilities for the extraction and exploitation of land, labor, and relations through digital infrastructure. This broader field of technological colonialism has been further developed by scholars in the fields of decolonization of technology, critical race theory , intersectional data feminism, and new data epistemologies (Awori et al. 2016; Benjamin 2019; D'Ignazio & Klein 2020; Mohamed et al., 2020).

Algorithmic colonialism is used to mean building on data colonialism in the context of the interactions of algorithms between societies that affect the allocation of resources, the socio-cultural and political behavior of people, and existing discriminatory systems that could also be called cyber-colonialism. A taxonomy of classification regarding the current discourse on justice, accountability, and transparency in algorithmic systems and decolonization as the language of colonial independence can be expressed as follows (Mohamed et al., 2020):

Institutionalized algorithmic/cyber pressure,

Algorithmic/cyber exploitation and

Algorithmic/cyber dispossession.

AI Algorithms and Social Media Relationship

Today, we can list the fields of AI, which expresses high-frequency technological studies, such as health, education, entertainment, and informatics. When we look at the concept of AI, we can say that the functions that require physical and human intelligence based on the machine system are a system in which machines perform these functions cognitively. AI technologies constitute today's most robust communication infrastructure and are used effectively in digital marketing and social media channels. When we think that user experience is an important point, we can clearly understand the importance of AI technology as a control mechanism in social media. The use of social media tools, which have become indispensable for people, and the guidance, understanding, and follow-up of the user in this use are realized with the support of specific metrics. The basis of these metrics consists of components of AI. As a result of all these, the task of social media managers is to know that AI can analyze the competitive environment that dominates social media and help the formation of the right target audience strategy. At the same time, it will have the authority to direct the user or a brand according to the data at hand.

First, we know that Facebook is among the most social media platforms that use AI technology. Facebook uses AI to analyze user behavior and improve the user experience. Let us exemplify this situation as follows: The comments made on the Facebook homepage, the news that users like are included in the flow, and at this point, we see that the face recognition system in the advertisements, users, and images in the targeting is achieved by using AI technology. 'DeepText', which Facebook describes as text comprehension, enables you to understand the usage patterns of texts and reveal the content that Facebook users want to see and contribute to the users' experiences regarding the product or service. Since Facebook is a global platform, DeepText must perceive many languages, and understanding this structure is also among the critical issues. As the best example of DeepText, we can give Messenger as an example. Namely: DeepText and AML Conversation Understanding researchers have found that it is used to understand any user's intention and that the appropriate tools help the use. E.g., a user can write that he wants to buy a sweater for 70 TL. DeepText detects that the user who is sharing this is trying to buy something and then creates price and information lists about the product he wants to buy, while at the same time pushing the user to use the tools available on Facebook. When we examine Twitter, AI technology is used to see the foreground topics and the order of the tags as an approach. In that case, one uses AI technology to determine the user's interest level and see the Twitter high-level user experience. Another example for Twitter is that the language of AI defines frequently encountered negative discourses. It uses deep learning language while filtering the sharing that contains profound negativity. According to the data, it has been announced that nearly 300,000 accounts with illegal content, 95% of which are not real, have been detected and blocked. In terms of Instagram, which has the highest number of users, the profiles that the user likes, saves, visits, and searches show accounts like the user followed, with AI technology, and we, the users, are in the position of followers in the flow. While mass media has many positive aspects, there are also negative aspects. These negative traits mostly affect children who have not yet acquired critical intelligence skills (Açıkalın, 2018). One of the everyday situations on Instagram is the cyberbullying mess. AI stands against this intervention by detecting and blocking nasty comments on posts and videos. This situation, which almost all users are exposed to, has been resolved thanks to the algorithm of AI.

All marketers have considered the importance of social media measurement and performance analysis. AI provides excellent support to marketers in this regard. The analytics and data driving marketers drive strategy shifts with AI in performance measurement. E.g., it is

known that informing users of similar tools such as Hootsuite about their customers' preferences is an effective method in performance analysis. Thanks to AI and machine learning systems, optimized content on social media is transformed into data, and better modeling is supported in the future. Considering that every business has a social media account today, content is shared intensively every day. In content creation, it is also possible to share similar content to the ready-made content of rival companies. With social media listening tools, customer service, marketing strategies, and product development stages are obtained, while these data are predictive for brands. With this information, sensitivity measurement is done with AI. In addition, it should be noted that all data on social media is analyzed thanks to 'Natural Language Processing in the context of AI.

Working Structure of AI Algorithms

One should know that AI components work in learning and application logic following the general characteristics of social media platforms, and one should adopt this to social media. In the user-oriented system, the profiles, websites, shares that the users interact with, which are analyzed separately, form a data source to be stored in the form of data by AI technology. This helps create new user profiles by AI from the collected data and the data created. If these profiles, created by AI, are examined from the eyes of brands, it provides access to what users like and dislike and what content they are interested in. In short, thanks to these algorithms, a brand can follow user trends in social media. After that, content suitable for user behavior will meet with the user. Finally, we can say that AI on social media platforms is preferred because it is easier to organize content production according to the user by putting the user in the center and including content that accelerates user understanding on social platforms.

The Role of AI in the Development of a Social World

Will AI mean the end of social interaction? Will Metaverse apps add a different dimension to social interaction? Such questions can be asked. The emergence of social computing on the Web has led to a new generation of powerful and world-changing Web applications (Hendler & Berners-Lee, 2010). Computational social science, a growing discipline that can add significant insights into human behavior, is sadly sometimes described to improve the rigor of the social sciences. However, suppose machines are to be built that work in close interdependence with humans. In that case, engineers will need to respect and learn from social scientists who study the complexity of how humans interact with each other and with technology. Therefore, it is vital to correctly examine the behaviors that filter human beings' existence, values, feelings, and thoughts.

Imitation of Human Behavior

As AI shows increasingly intelligent and proficient potential, such as achieving superhuman performance in some cases, there will be an increased potential for humans to learn from and collaborate with algorithms (Gerrish, 2018). However, AI systems can be challenging to interpret and learn from because they often approach problems differently from humans. An essential step in bridging this gap between humans and AI is to model the multivariate actions that make up human behavior rather than simply mapping total human performance (McIlroy-Young et al., 2020). Logical and material relations and variables and historical, emotional, spiritual, reactionary, and intuitive variables should be considered. Culture, group psychology, past opinions, tastes and obsessions, beliefs, and religious acceptances are also influential. It seems very difficult for them to be internalized by the machine yet.

Algorithmic Oppression

Algorithmic oppression is sustained by the unfair subordination of one social group and the privilege of the other - by a "*complex web of social constraints*" made up of social norms, laws, institutional rules, implicit biases, and stereotypes (Taylor, 2016). Predictive systems that leverage AI have led to new types of inspection, control, policing and surveillance, and the development of government services. Instead, these systems risk consolidating historical injustice and may also reinforce social biases in the data used to enhance them (Benjamin, 2019; Mohamed et al., 2020). With the proliferation of data circulation and use, there has been a high increase in AI systems in public and private spaces. By storing personal information and online behavior data, users' tastes, purchasing habits, needs, and even their next steps can be predicted. Although recommendation-based online systems satisfy users at the level of individual use, problematic situations arise with AI systems in critical areas such as recruitment, legal proceedings, and criminal detection by police units.

Algorithmic decision mechanisms that reinforce historical inequalities and stereotypical judgments risk social prejudices embedded in systems. The fact that algorithms, which detect white-skinned men with 99% success in facial recognition systems, have an error rate of up to 35% in detecting dark-skinned women point to biased processes in representation in the algorithmic decision and implementation mechanisms (Lohr, 2018). The limitation observed in the differences in terms of gender and ethnicity in the areas where AI systems are produced is reflected in the algorithmic classification and estimation stages as a similar kind of "limitation and bias". Algorithmic decision systems (Isaac, 2017) tend to become increasingly common in the US criminal justice system, despite significant shortcomings, such as associating criminal datasets with discriminatory policing patterns (Angwin et al. 2016; Lum and Isaac 2016; Richardson et al. 2019). Numerous examples of predictive algorithms perpetuate social harm in everyday interactions, including facial recognition systems failing to detect black faces and perpetuating gender stereotypes (Buolamwini & Gebru 2018; Keyes 2018; Stark 2019; Mohamed et al., 2020). Many programs are implemented for job opportunities and competence development in this context.(Sap et al. 2019; Dastin 2018; Costanza-Chock 2018). Algorithmic exploitation considers how corporate actors and industries surrounding algorithmic tools exploit people in unfair or unethical ways for the asymmetrical benefit of those industries. It is based on the advantages of a kind of digital divide. (Ali, 2016).

AI Nannies

The reason why AI researchers constantly warn about the free will of consciousness is that the legal and ethical criteria to deal with such a situation are not yet mature. There is a widespread view that companies that conduct research on humanoid robots should sign principled agreement (Canga Bayer, 2021). During the industrial revolution, broadcasters were generally held responsible for the asociality of children when they were in front of the television for too long. While the time spent in front of the screen has always been a concern for parents when the first computer games came out, there has been increased concern in religious and cultural conservative circles about online games and what kind of content is presented to children in the AI era.

Robotics and artificial intelligence companies will certainly be sensitive, as no company will want to be responsible for harm done to children, but different profit expectations and unexpected developments pose risks. Therefore, the next generation of AI robots can be designed to appeal specifically to parents and children. Any AI robots are likely to be marketed primarily as toys, surveillance devices, and possibly household appliances, to be more easily

accepted and preferred by parents, but they can also fall under the influence of malicious or hackers. The next generation of robots will be designed specifically to appeal to parents and children. Industry regulators and public authorities expect various products with advanced capabilities and humanoid features, and various global regulations are made in this direction. While it is thought that parents would much prefer a robot due to its ability to engage and distract their children, the abuse, psychological and social effects they can cause also need to be seriously studied.

Parents must think that they can leave their children alone with AI robots just as they can leave them to watch TV or play with other children. Parents may be shocked by the unexpected results as they quickly discover the contribution of robot nannies or AI friends with advanced artificial intelligence and communication skills to their children's education lives. When it comes to children's health, the same regulations applied to toys and more will be valid for robot manufacturers, and it should be considered that more advanced precautions should be taken.

It should be noted that a child's ability to bond with their parents and their religious and cultural values can have a long-term impact on their ability to form friendships, romantic relationships and integrate into society in general. Another point that worries people about AI robots and artificial intelligence is the risk that children who prefer predictable interactions with robots will prefer machines over humans throughout their lives. In general, the possibility that AI robot nannies and artificial intelligence toys could be useful in unexpected ways should not be overlooked, which can make the child adopt certain tendencies by displaying different behavior patterns as you wish. For example, long-term AI experience has a chance to develop a child's understanding of himself, the stages of creation, his connection with other creatures and God, and what it means to be human. As children mature and grow in their understanding of artificial intelligence and robotics, it is possible to expect them to turn these devices into personalized legal and defense tools. However, in case of being socially unprincipled, careless, and heedless, it is possible that chronic problems may arise since children are educated with an asocial, antisocial and anarchist mentality in the future. Therefore, it is of great importance to establish development and implementation principles regarding AI and to be subject to follow-up and supervision by the relevant authorities.

AI Principles Compliance Measures

Many countries must consider some universal principles when preparing and implementing their AI strategies. Its continued development, guided by the following principles, will present incredible opportunities to help and empower people in the decades and centuries to come. The basic principles known as Asilomar AI principles [4] for short and midterms are:

1) Research Goal: The goal of AI research should be to generate valuable intelligence, not undirected intelligence.

2) Research Funding: Investments in AI should be accompanied by funding for research to enable the beneficial use of AI, including challenging questions in computer science, economics, law, ethics, and social sciences.

3) Science-Policy Connection: There should be a constructive and healthy exchange between AI researchers and policymakers.

4 For asilomar principles, see https://futureoflife.org/ai-principles/

4) Research Culture: A culture of collaboration, trust, and transparency should be fostered among AI researchers and developers.

5) Race Avoidance: Teams developing AI systems must actively collaborate to avoid cutting corners in safety standards.

Morals and values

6) Security: AI systems must be safe and secure throughout their operational life and be verifiable when applicable and applicable.

7) Failure Transparency: If an AI system is causing harm, it should be possible to identify the cause.

8) Judicial Transparency: The involvement of an autonomous system in judicial decision-making should provide a satisfactory explanation that competent human authority can audit.

9) Responsibility: The designers and builders of advanced AI systems are stakeholders in the moral consequences of their use, misuse, and actions. They have the responsibility and opportunity to shape those outcomes.

10) Value Alignment: Highly autonomous AI systems should be designed to ensure that their purpose and behavior are aligned with human values throughout their operations.

11) Human Values: AI systems should be designed and operated in a way that is compatible with the ideals of human dignity, rights, freedoms, and cultural diversity.

12) Personal Privacy: Given the power of AI systems to analyze and use this data, people should have the right to access, manage and control the data they produce.

13) Freedom and Privacy: AI to personal data should not unreasonably restrict people's actual or perceived freedom.

14) Shared Benefit: AI technologies should benefit and empower as many people as possible.

15) Shared Prosperity: The economic prosperity created by AI must be broadly shared to benefit all humanity.

16) Human Control: People must choose how and delegate decisions to AI systems to achieve human-selected goals.

17) Non-destructive: The power conferred by the control of highly advanced AI systems should respect and improve, rather than overthrow, the social and civic processes on which the health of society depends.

18) AI Arms Race: An arms race in lethal autonomous weapons should be avoided.

Conclusion

It is impossible not to be aware that AI is taking over the fields of science and engineering, the economy, and popular culture quite loudly. Thanks to the Westworld series, we are now expected to imagine the dangers of AI through a fantasy of science fiction world. However, when we focus on the technology itself, we see again that such dangerous scenarios are not very realistic. The recently emerging field of AI has revolutionized the entire science of information;

Humans' greed for AI has flared up again, and machine anxiety has once again arisen between Blade Runner and the Matrix (Yolgörmez, 2018). AI opens a path that has never been opened before human beings. On this path, it exposes the human being to a phenomenon different from all the technological things he has produced and associated with. With AI modeled based on human thinking and learning abilities, humans are faced with a new form of social interaction. This situation requires a rethinking of sociality and the economic, moral, and legal contexts that make it up. It is possible to say that an essential corpus on AI has begun to form in the sociology literature (Adaş & Erbay, 2022). It should be noted that AI is a rising influencer of politics, society, and everything within the scope of the IoT. AI can be considered an add-on to human intelligence at the individual and broader levels through social media and the IoT. Some critical challenges can be considered regarding the following issues (Chitty & Dias, 2017):

1) Human society and AI can unite in various ways at the apex of a world confederation, one indistinguishable from the other.

2) A sensitive and sophisticated AI can eventually become the shaper of the world confederation, or

3) Human society can continue to shape the world confederation by enabling AI to follow humanistic norms.

A different AI emerges from Alexa, Siri, or Google Assistant. Additional questions and answers about whether the human, AI, or human/AI hybrids are willing, unwilling, or not to submit to any entity or system at the top of the world system have been tried to be expressed in the context of social interactions. AI technology, which has been actively involved in social media platforms for a while, can distinguish any criminal data when used correctly and working with people. However, if used incorrectly, all users' data may be at risk. Social media has become a powerful phenomenon as a new media paradigm. Especially its power in global events is indisputable which works great when used properly but can be dangerous when manipulated.

AI can scan data flawlessly very quickly, detecting anything that could potentially be considered a crime, such as incitement to violence. At the end of this process, human members of the team can choose what to do with the detected elements. Although many of us hate Facebook and social media from time to time, contrary to popular belief, the use of social media is not decreasing, but increasing as it is estimated that 3 billion people currently have at least one social media account, and this number is expected to increase. Social media has now become a separate world and it has become impossible for people to control the movements and shares of users. In this context, these social media platforms that we all have been actively using for a long time are not controlled by humans but by AI which is actively preparing to replace humans in many areas and is continuously developing. Any commitment to building responsible and beneficial future AI binds us to hierarchies, philosophy, culture, religion, and technology inherited from the past and a renewed responsibility to today's technology. The tasks are to deal critically with this legacy, prevent algorithmic colonialism, uncover the power relations underlying the spread of technology, recover previously incompatible life principles, and create new forms of political and emotional community.

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