Chapter 7

THE HISTORY OF THE ARTIFICIAL INTELLIGENCE AS AN ALTERNATIVE WORKFORCE AND THE POSSIBLE OPPORTUNITIES/THREATS FOR ITS FUTURE

Benan YÜCEBALKAN[1]

INTRODUCTION

It is the developments in the artificial intelligence (AI) field which brings "unmanned production" on the agenda, which constitutes the essence of digital production, integrated communication networks, cyber physical systems, smart factories and Industry 4.0, which is defined as a structuring based on producing information from data. Industry 4.0's production vision is a series of systems in which the product, intelligence, informatics and communication methods are carried out as a whole. In this context it is predicted that in a time span of 10-15 years production environments will be transformed into ones which can make decisions on their own (autonomous) by integrating with AI, flexible, adaptable, reconfigurable, based on virtual administrators, working on the basis of efficiency instead of productivity, recognizing and monitoring the product it produces by integrating into it (Öztemel, 2018).

MIT AI Laboratory executive Edward Fredkin, had indicated the importance of developments in the AI field on a TV show as follows (Copeland, 1993):

"There are three important events in history. First, the creation of the universe. Second, beginning of life. Third, which I think has the same significance, emergence of the artificial intelligence. This is a form of life with intellectual success which is very different and difficult to imagine. These machines will develop: Some intelligent computers will design others and they will become more and more intelligent. Question is, where will it take us? It is difficult to imagine owning a machine which is million times smarter than the smartest person, but in fact our slave and does what we ask for. They may look forward to talking to us, play games we like to play and, in some sense, keep us as pets."

[1] Dr., Kocaeli University, byucebalkan@gmail.com

present. To give an example; Art Bilger, a board member and venture capitalist of the University of Pennsylvania Wharton School of Business, created a non-governmental organization called "Working Nation" in order to combat the structural unemployment that is predicted to take place in the near future and its blow on the American people. The mission of the organization is to warn the public and help develop plans that can protect people against the worrisome situation. Bilger calls on companies, academia, government and NGOs to unite in order to modernize the workforce. One of the proposed solutions is the state's distribution a universal minimum income that will enable individuals to survive. Then, through re-education programs, it is thought that people can find new interests (some will want to establish business, some will want to participate in creative organizations, etc.) (Dünyanın Çevirisi, 2018).

Gred Leonhard, on the other hand, states the need to define a "set of digital ethics" that is open enough to keep the pace of innovation and progress, but strong enough to protect humanity and he proposes to form a "Global Council of Digital Ethics" whose members to be consisted of people from NGOs, academia, government, business sectors, free thinkers, authors, artists and ideological leaders (Leonhard, 2018).

Now, at this very end of this study, considering the fact that Google DeepMind technology tends to exhibit highly aggressive behavior in certain contexts and when confronted with certain tasks, Kant might be referred. Kant's notion of creation implies that the idea of a fully benevolent AI is officially inconsistent; because, every time a new real intelligence is created, a new capacity for evil is formed. If Kant is right, then it can be thought that the smart machines will have a tendency towards evil as people do; for they are also smart, and they will want to taste the forbidden fruit as well (Düşünbil, 2018b).

REFERENCES

Aydın, A.O. (2013). Yapay Zekâ: Bütünleşik Bilişe Doğru. İstanbul: İstanbul Gelişim Üniversitesi Yayınları.

BBC Turkish (2018). OECD: Robotların eline korkulandan daha az iş geçecek. (Retrieved from https://www.bbc.com/turkce/haberler-dunya-43615133 on 02/04/2018).

Beyinsizler (2018). 600 Yıldır Çözülemeyen Gizemli El Yazması Voynich Yapay Zekâ İle Çözüldü. (Retrieved from http://beyinsizler.net/600-yildir-cozulemeyen-gizemli-el-yazmasi-voynich-yapay-zeka-ile-cozuldu/ on 02/01/2019).

Bizsiziz.com (2018). Yapay Zekâ Gelecekte İnsanları Daha Zeki Hale Getirecek. (Retrieved from http://www.bizsiziz.com/yapay-zeka-gelecekte-insanlari-daha-zeki-hale-getirecek/?fbclid=IwAR0p1y8zgrw3d2AHwdqrsmwEut2SD1eORFCduBIGzFCLA2iKJGOHjGIUYKs on 30/10/2018).

Copeland, J. (1993). Artificial Intelligence, A Philosophical Introduction. Massachusetts: Blackwell Inc.

Digitalage (2016). Google'ın yapay zekası dünya Go şampiyonunu yendi. (Retrieved from https://digitalage.com.tr/googlein-yapay-zekasi-dunya-go-sampiyonunu-yendi/ on 02/04/2018).

Doğan, A. (2002). Yapay Zekâ. İstanbul: Kariyer Yayıncılık.

Dünyanın Çevirisi (2017). Oxford Üniversitesi'ne göre, mevcut işlerin %47'si önümüzdeki 25 yılda ortadan kalkacak. (Retrieved from http://blog.caycuma.bel.tr/2017/02/03/oxford-universitesine-gore-mevcut-islerin-gsi-onumuzdeki-25-yilda-ortadan-kalkacak/ on 02/04/2018).

Düşünbil (2017a). İnsan kapasitesini aşabilen yapay zekâ Luna: 'Düşünüyorum, öyleyse varım'. (Retrieved from https://dusunbil.com/insan-kapasitesini-asabilen-yapay-zeka-luna-dusunuyorum-oyleyse-varim/ on 02/04/2018).

Düşünbil (2018b). Cennette bela: Yapay zekanın yükselişi. (Retrieved from https://dusunbil.com/cennette-bela-yapay-zekanin-yukselisi/ on 25/08/2018).

Evin, Mehveş (2017). 'Homo Sapiens'in yazarı Harari: 'Gereksizler' diye yeni bir sınıf doğuyor. (Retrieved from http://www.diken.com.tr/homo-sapiensin-yazari-harari-gereksizler-diye-yeni-bir-sinif-doguyor/ on 06.05.2018).

Evrensel (2018). 'Katil robot' geliştirmek isteyen üniversiteye boykot. (Retrieved from https://www.evrensel.net/haber/349503/katil-robot-gelistirmek-isteyen-universiteye-boykot06 06/05/2018).

Ford, M. (2018). Robotların Yükselişi. (Cem Duran, Çev. Ed.). İstanbul: Kronik Yayınları.

Gazete Duvar. Katil robot'lar yasaklandı. (2018). (Retrieved from https://www.gazeteduvar.com.tr/teknoloji/2018/09/13/katil-robotlar-yasaklandi/ on 40/10/2018).

Gazete Karınca. Yapay zekâ uzmanlarından 'otonom silah' uyarısı. (2018. (Retrieved from http://gazetekarinca.com/2018/04/yapay-zeka-uzmanlarindan-otonom-silah-uyarisi/ on 28/05/2018).

Gelecekhane (2018a). Google'ın Yapay Zekası AlphaGo, Go Dünya Şampiyonu'nu 3. Kez Yendi. (Retrieved from https://www.gelecekhane.com/googlein-yapay-zekasi-alphago-go-dunya-sampiyonunu-3-kez-yendi/ on 30/10/2018).

Gelecekhane (2018b). Stephen Hawking ve Gelecek Öngörüleri. (Retrieved from https://www.gelecekhane.com/stephen-hawking-ve-gelecek-ongoruleri/ on 30/10/2018).

İTÜ NOVA (2018). İnsan ile Yapay Zekânın Rekabeti 2060'da Sonuçlanacak. (Retrieved from http://blog.itunovatto.com.tr/insan-ile-yapay-zekanin-rekabeti-2060da-sonuclanacak/ on 02/04/2018).

Kara, M. (2014). Amelia: İnsan Gibi Düşünebilen Sanal Asistan. Webrazzi. (Retrieved from https://webrazzi.com/2014/10/01/amelia-insan-gibi-dusunebilen-sanal-asistan/ on 02.04.2018).

Kaya, H. (2016). Yapay Zekâ Yönetim Kurulu'na Katıldı. (Retrieved from https://www.hkdestek.com/guncel/yapay-zeka-yonetim-kuruluna-katildi/ on 30/10/2018).

Koç, O. (2018). Daha İyi Bir Dünya için Yapay Zekâ. İstanbul: Doğan Kitap.

Leonhard, G. (2018). Teknolojiye Karşı İnsanlık. (Cihan Akkartal, İlker Akkartal, Çev. Ed.). İstanbul: Siyah Kitap.

METU Robotics Society (2018). Yapay Zekânın geleceği. ODTÜLÜ, 64, 26-29.

Russell, S. J. & Norvig, P. (2010). Artificial Intelligence, A Modern Approach (3rd ed.). Prentice Hall Series.

Öztemel, E. (2018). Endüstri 4.0 ve Yapay Zekâ. Bilim ve Teknik, 51(607), 78-85.

Say, C. (2018). 50 Soruda Yapay Zekâ (7th ed.). İstanbul: Bilim ve Gelecek Kitaplığı.

Schwab, K. (2016). Dördüncü Sanayi Devrimi. (Zülfü Dicleli, Çev. Ed.). İstanbul: Optimist Kitap.

ShiftDelete.Net (2017). İnsana en çok benzeyen robot, Sophia!. (Retrieved from https://shiftdelete.net/insana-en-cok-benzeyen-robot-sophia-82580 on 02/04/2018).

Siegel, J. G., Shim L. K., Walker, J. P., Qureshi, A. A., O'Callaghan, S. & Koku, P. (2003). The Artificial Intelligence Handbook: Business Applications in Accounting, Banking, Finance, Management and Marketing. Ohio: Thomson Learning.

Technology News. Alphago nedir? (2016). (Retrieved from http://haberciteknoloji.blogspot.com/2016/03/alphago-nedir.html on 02/04/2018).

TRAI (2018a). Yaratıcı Zekâ. Sanat alanındaki son gelişmeler… (Retrieved from https://turkiye.ai/yaratici-zeka-sanat-alanindaki-son-gelismeler/ on 30/10/2018).

TRAI (2018b). Yapay Zekâ Alanında Başlıca 13 Akım. (Retrieved from https://turkiye.ai/yapay-zeka-alaninda-baslica-13-akim/ on 30/10/2018)

TRAI (2018c). IBM'in Kendi Yapay Zeka Yolcuğundan Çıkardığı 3 Ders. (Retrieved from https://turkiye.ai/ibmin-kendi-yapay-zeka-yolcugundan-cikardigi-3-ders/ on 30/10/2018)

Türsen, D. (2017). Bu mesleklerde çalışanlar dikkat! İşte yapay zekânın bitireceği meslekler. (Retrieved from http://www.hurriyet.com.tr/ekonomi/bu-mesleklerde-calisanlar-dikkat-iste-yapay-zekanin-bitirecegi-meslekler-40569487 on 02/04/2018)

Ünsalan, G. (2017). Teknolojik Tekillik. (Retrieved from https://industryolog.com/teknolojik-tekillik/ on 02/04/2018).

Zarakol, S. (2018). Beyaz Yakanın Modern Melodramı. (Retrieved from http://bianet.org/biamag/bilim/201014-beyaz-yakanin-modern-melodrami on 22/09/2018).