Avrupa Birliği Perspektifinde Lex Robotica

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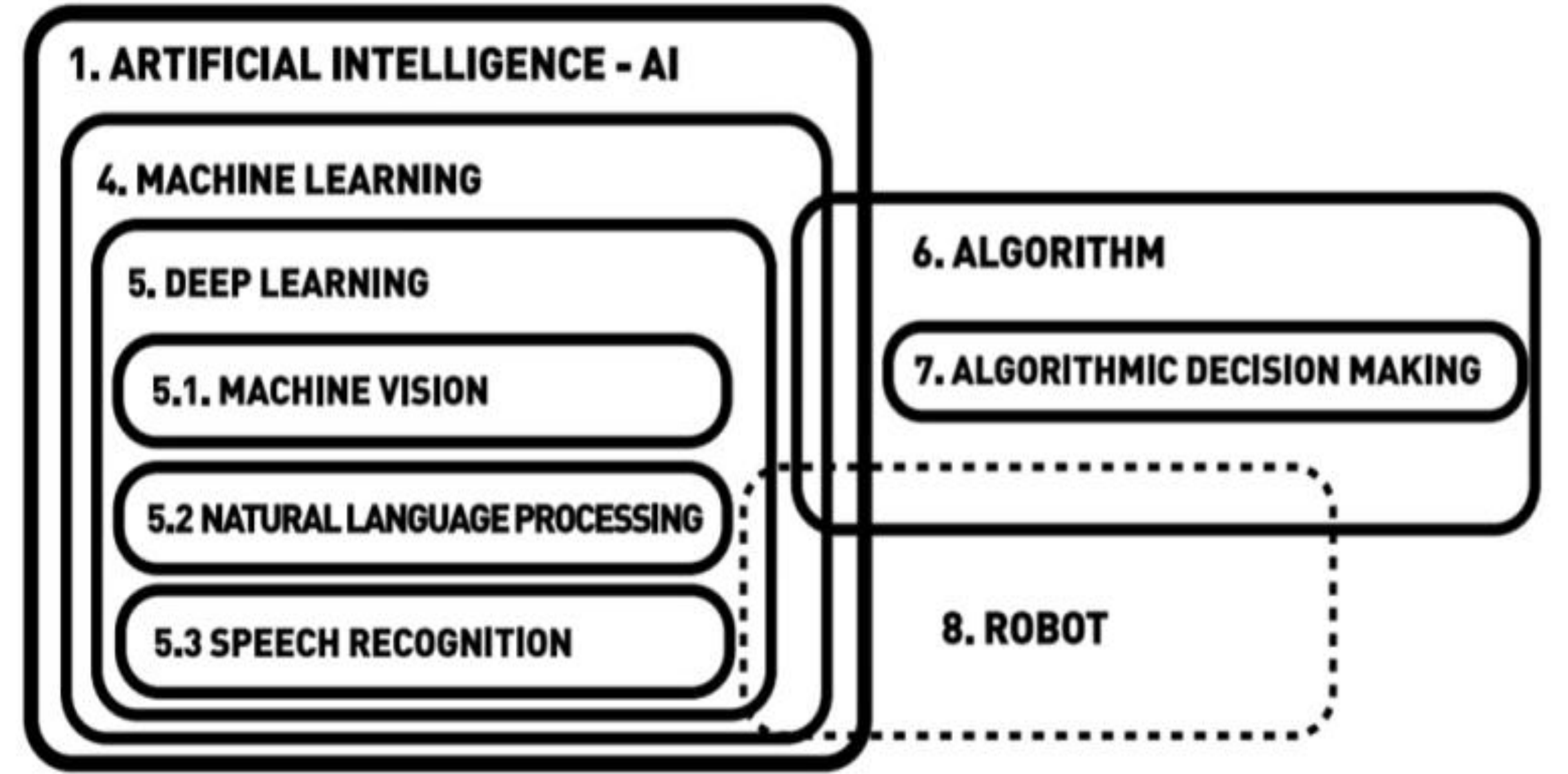
KÜTÜPHANE, ARŞİV VE MÜZE YÖNETİCİLERİ KONGRESİ VE FUARI

10-12 MART 2021
EXPONEXT DİJİTAL PLATFORM

KAM'21 KONGRESİ VE FUARI

Robotlarla Yaşam

- "Embodied AI" (Calo, 2015, s.532)

- AB YZ Uzman Grubu tanımı

- AK raporu: Bireyler, toplum ve iş dünyasına katkı ve Yüksek Risk vurgusu (European Commission, 2020).

- "Güven veren" robotlar/YZ:
  - Hukuka uygun
  - Etik
  - Sıfır zarar kuralı
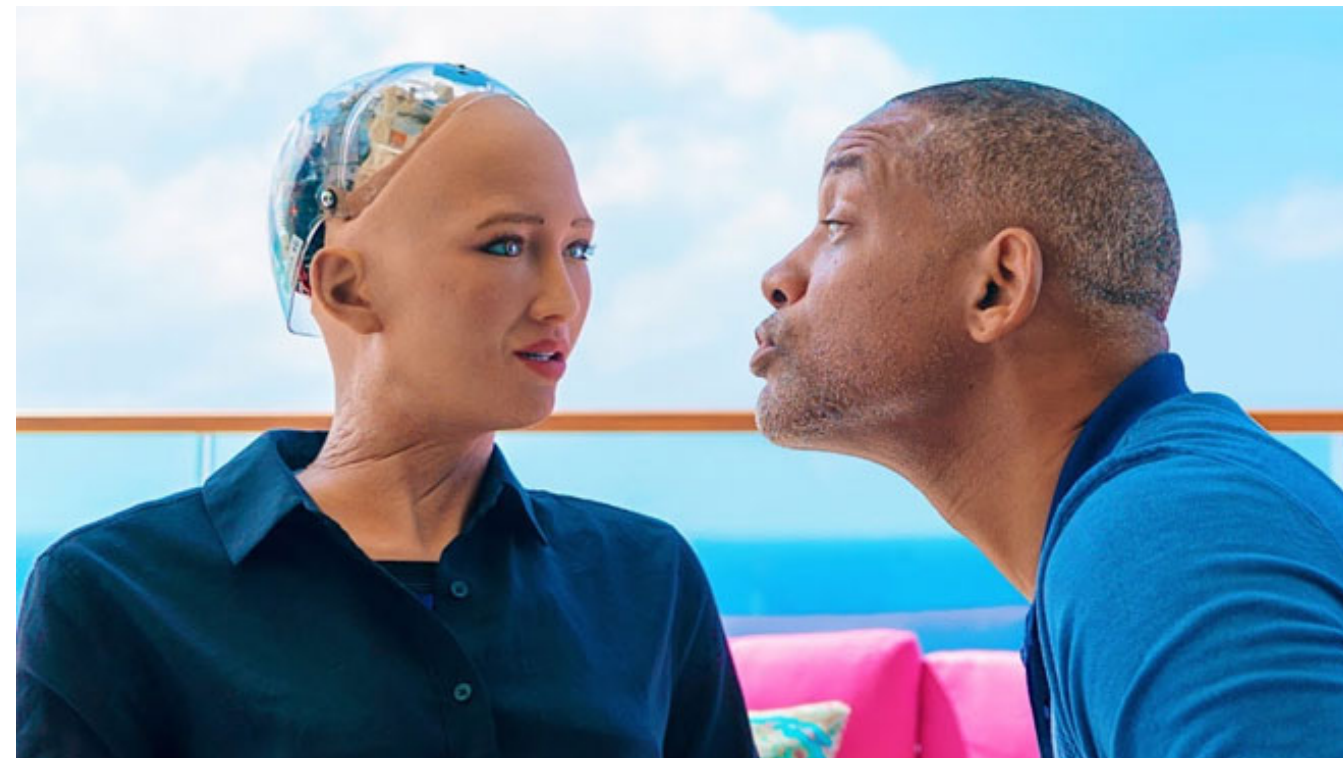

Kaynak: Access Now (2018), s.34.
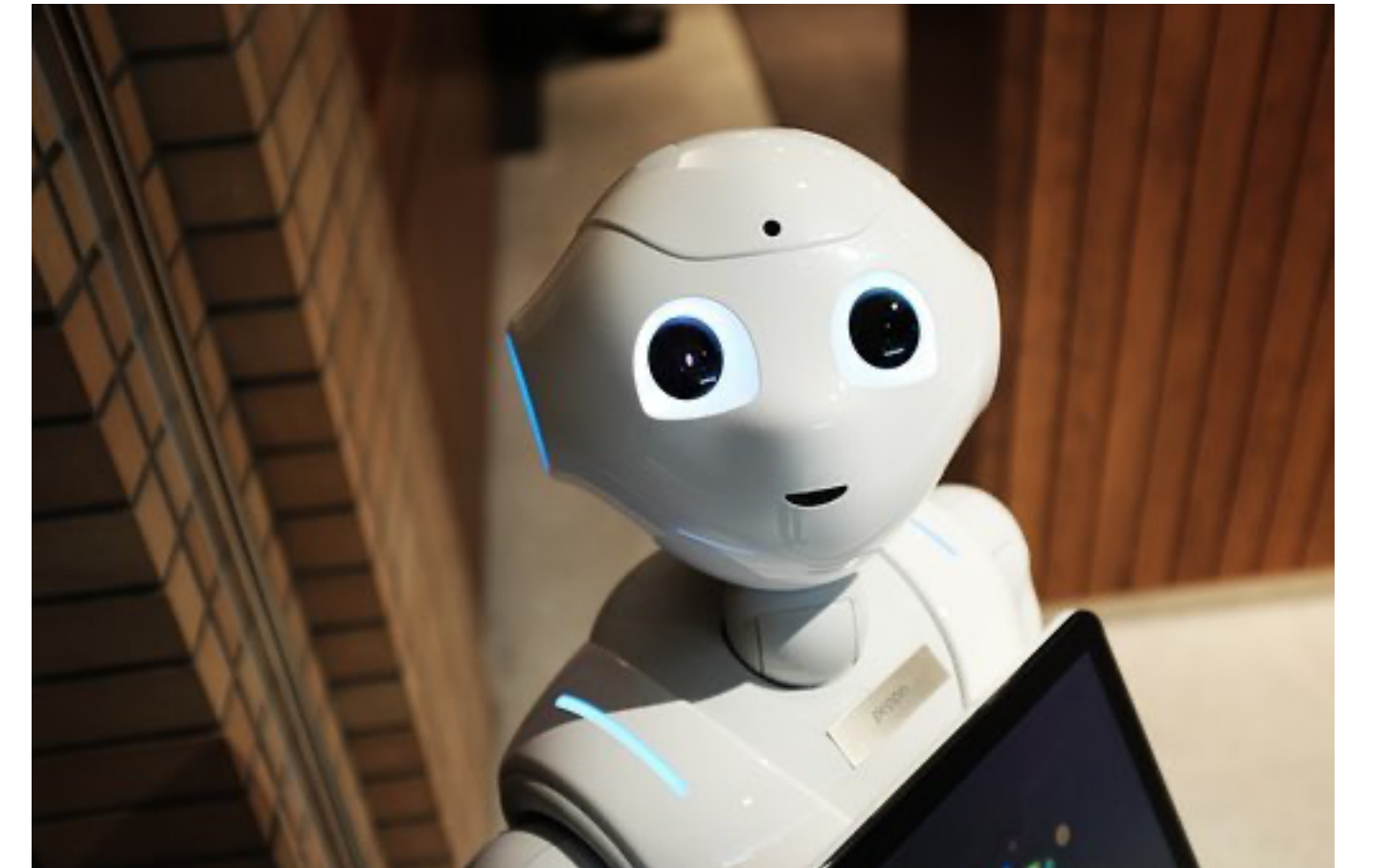
Neden Yüksek Risk?

1- Fiziksel Özellikler

- Güç aşımı

- Kazalar

- İnsan-Robot Etkileşimi

- Serbest dolaşım

Kaynak: https://theconversation.com/robopets-using-technology-to-monitor-older-adults-raises-privacy-concerns-132326

4.2. Real-Life Examples of Robot Accidents

Just like any other industry, the robotics industry too has its share of accidents. One wise course is to turn these accidents into learning experiences for those who follow. Therefore, this section, as a first step, presents descriptions of selected past robot accidents. Some of these descriptions are in [2] to [7]:

(i) A repair man climbed over a safety fence without shutting off the power to the robot and worked in its area while it was temporarily stopped. When the robot recommenced movement, it pushed the repair man into a grinding machine and, consequently, the man died.

(ii) A worker switched on a welding robot, meanwhile another person was still in its work area, consequently, that person (i.e., the person in its area) was pushed into the positioning fixture by the robot and died later.

B. S. Dhillon, *Robot Reliability and Safety*
© Springer-Verlag New York, Inc 1991   49

50   4. Robot Accidents

(iii) An employee stepped between a robot and the machine (a planer) it was servicing, and switched off the specific circuit that was sending activating signals from the planer to the robot. After performing the required task, the worker turned on the same circuit while still being within the robot work space. The robot started its operation and killed the employee by crushing him against the planer.

(iv) An employee climbed on to a conveyor belt in motion to recover a faulty component, while the robot serving the line was momentarily stopped on a program point. When the robot started operation, it crushed the worker to death.

(v) A worker violated safety devices to enter a work cell while the material

Dhillon B.S. (1991), s.49-50.

Kaynak: https://www.youtube.com//Ml9v3wHLuWI

Kaynak: https://www.businessinsider.com/deka-arm-mind-controlled-prosthetic-limb-2014-5
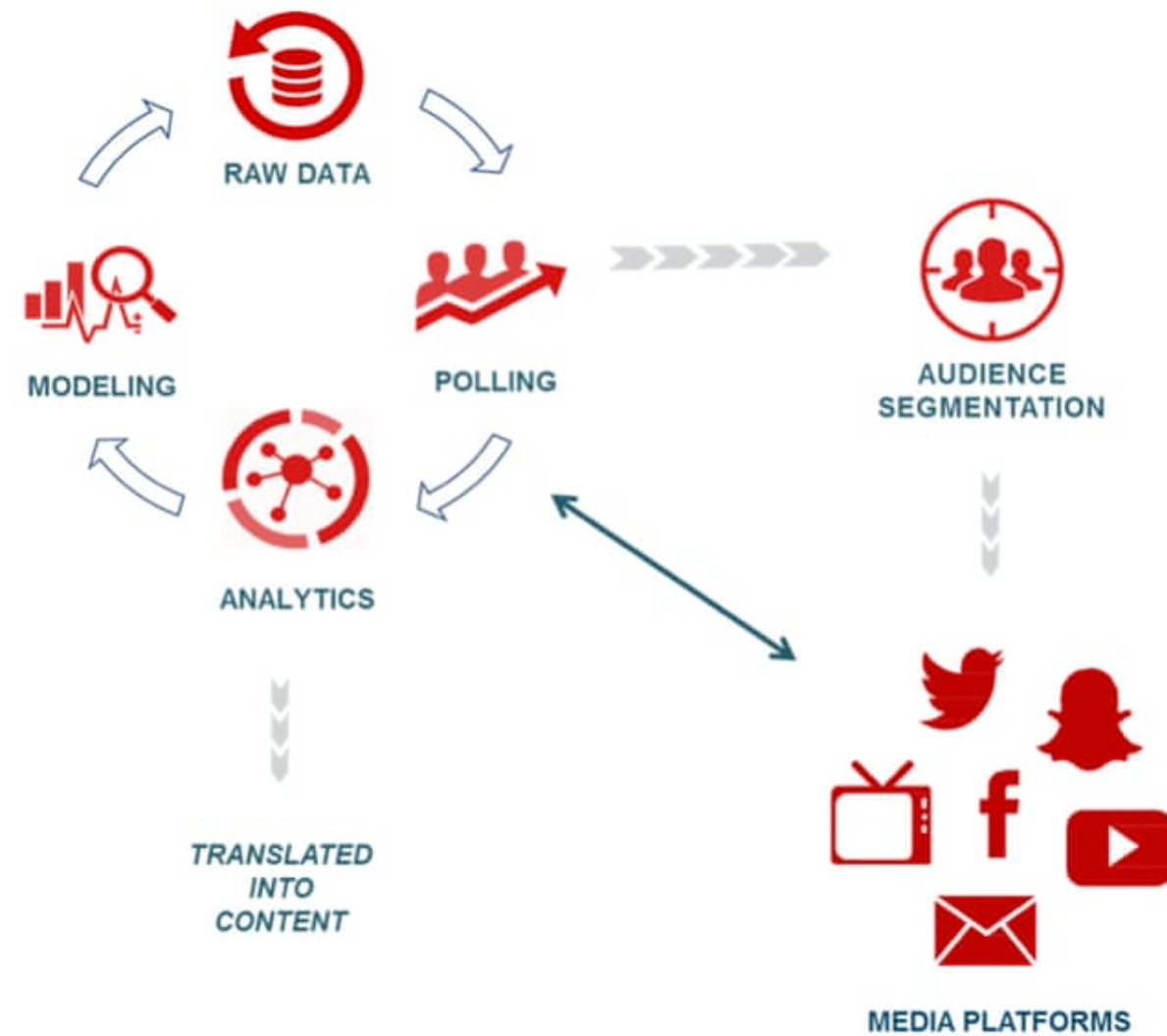
Neden Yüksek Risk?

2- Sosyal Açıdan

- İşsizlik riski (?)

- Mahremiyet ve kişisel verilerin korunması

- Ulaşılabilirlik, erişilebilirlik

- İncinebilir gruplar

- Bilinirlik ve bilgi seviyesi

- Temel hakların kullanımına etkisi

Kaynak: https://i.guim.co.uk/img/media/
45b503443ab805a5a116451cfe33db1e2dcd7c19/0_0_1437_807/master/1437.jpg?
width=1225&quality=85&auto=format&fit=max&s=99964139b20d143ef8d30173012d11ad

Kaynak: Lepore, J. (2021). p.99.

Neden Yüksek Risk?

3- Teknik Açıdan

- "Öngörülemeyen veri toplama"

- Siber güvenlik

- Eşitlik/önyargı

- Açıklanabilirlik

- Tekelcilik

Explainable Artificial Intelligence (XAI)
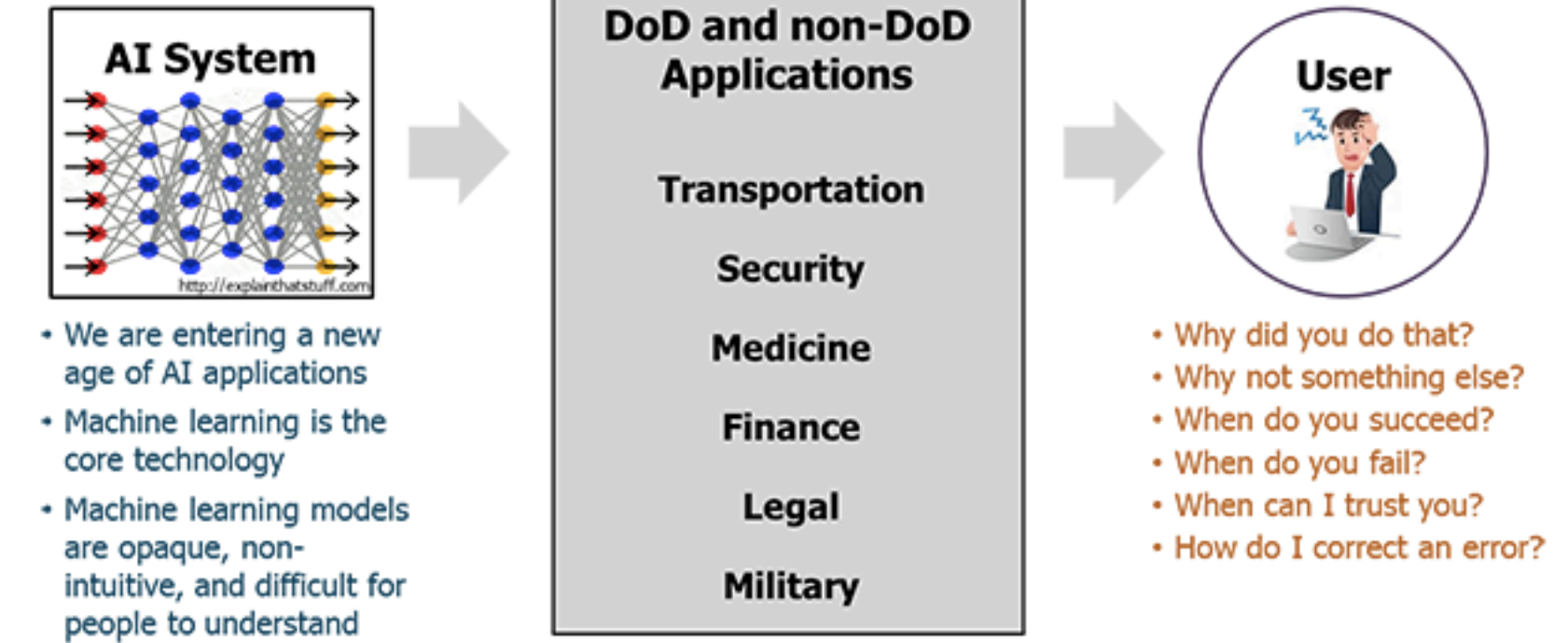
Dr. Matt Turek

Figure 1. The Need for Explainable AI
Kaynak: https://www.darpa.mil/program/explainable-artificial-intelligence

Oprah Winfrey

appears to be male   76.5 %

amazon

Joy Buolamwini, Algorithmic Justice League

Lex Robotica Macaristan: Macar YZ Stratejisi

- Mayıs 2020'de hazırlandı, 2020-2030 aralığını kapsamakta.

- Yenilik ve Teknoloji Bakanlığı ve YZ Koalisyonu

Sorunlar

- Ekonomi: Katma değer

- Sosyal hayat: İşsizlik

- Rekabet: SME'lerin durumu

- Uluslararası çevre: Milli bağımsızlık vs. Dışa bağımlılık

- Teknik sorunlar: Macar dilinin makinece işlenme zorluğu

Çözümler

- Kapasite inşası.

- Kamu verilerine ve kişisel verilere erişim.

- Kurumsal çerçeve.

- Eğitim, eğitim, eğitim!

- Sektör bazlı geliştirmeler.

- Hukuki çerçeve, düzenlemeler.

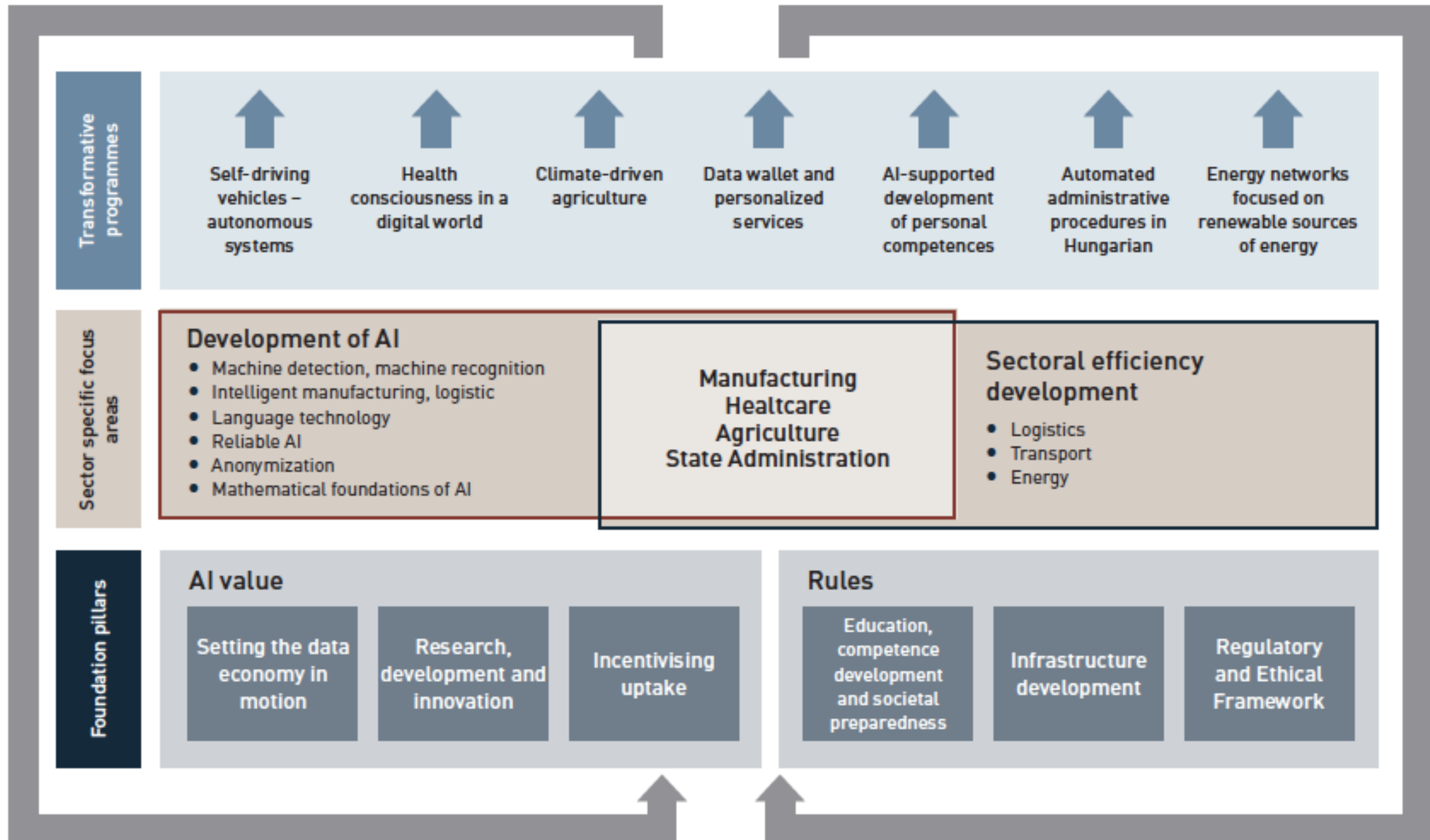Telecommunications   Banking and insurance   Retail   Energy   Healthcare   State administration   Transport / logistics   Manufacturing   Agriculture

Transformative programmes

- Self-driving vehicles – autonomous systems
- Health consciousness in a digital world
- Climate-driven agriculture
- Data wallet and personalized services
- AI-supported development of personal competences
- Automated administrative procedures in Hungarian
- Energy networks focused on renewable sources of energy

Sector specific focus areas

Development of AI
- Machine detection, machine recognition
- Intelligent manufacturing, logistic
- Language technology
- Reliable AI
- Anonymization
- Mathematical foundations of AI

Manufacturing
Healtcare
Agriculture
State Administration

Sectoral efficiency development
- Logistics
- Transport
- Energy

Foundation pillars

AI value
- Setting the data economy in motion
- Research, development and innovation
- Incentivising uptake

Rules
- Education, competence development and societal preparedness
- Infrastructure development
- Regulatory and Ethical Framework

Kaynak: Hungary's Artificial Intelligence Strategy: 2020-2030, May 2020, s.22.

Bonus Değerlendirme
Kütüphane ve Müzelerde Robotlar

- Danışma masaları

- Raf yerleştirme

- Kataloglama ve sınıflama

- Oyunlaştırma

- Obje tanımlama, tamamlama
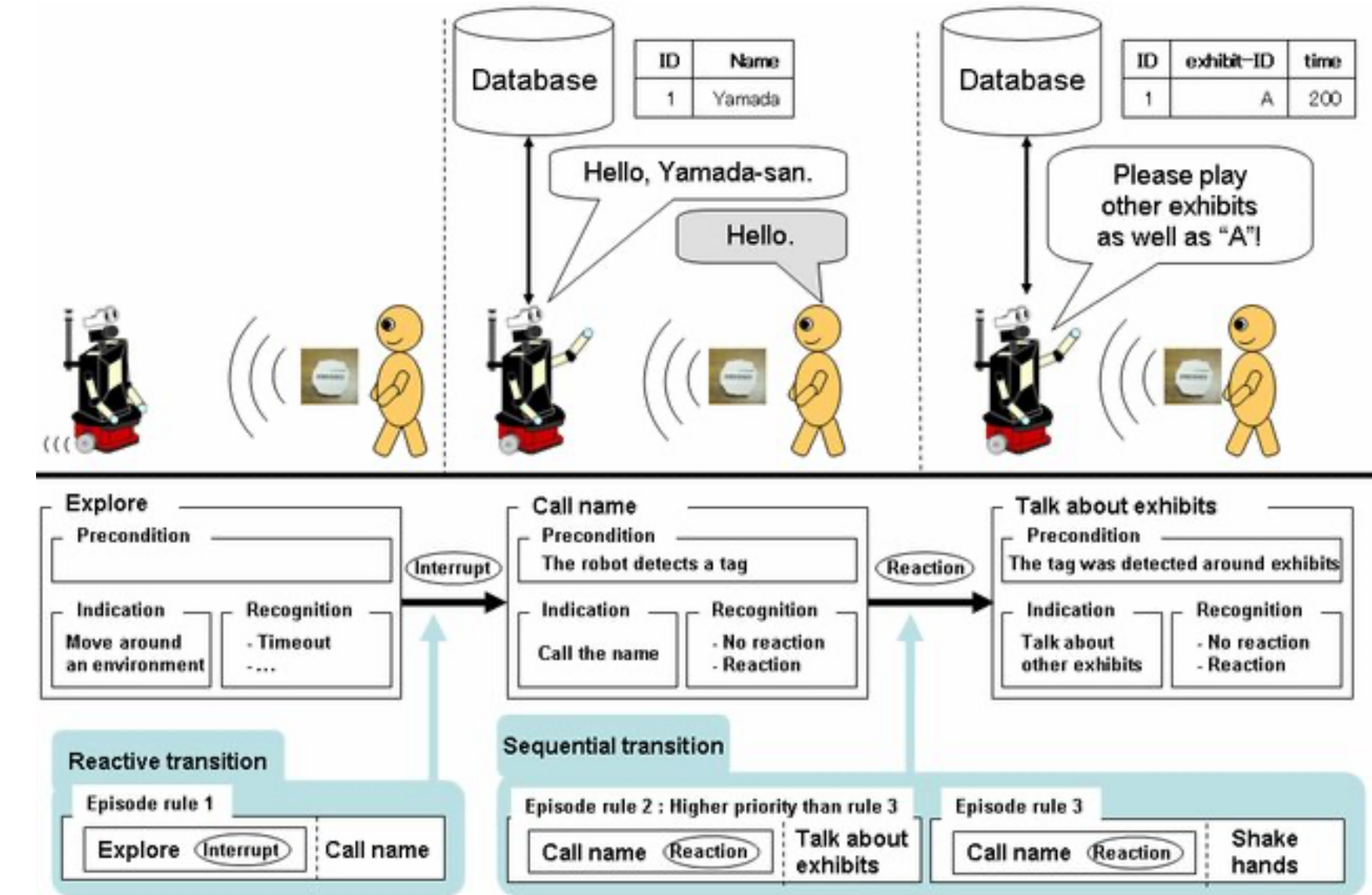
- Müze rehberi

- Eser çözümleme/yorumlama

- Obje tanımlama, tamamlama

- Müze rehberi
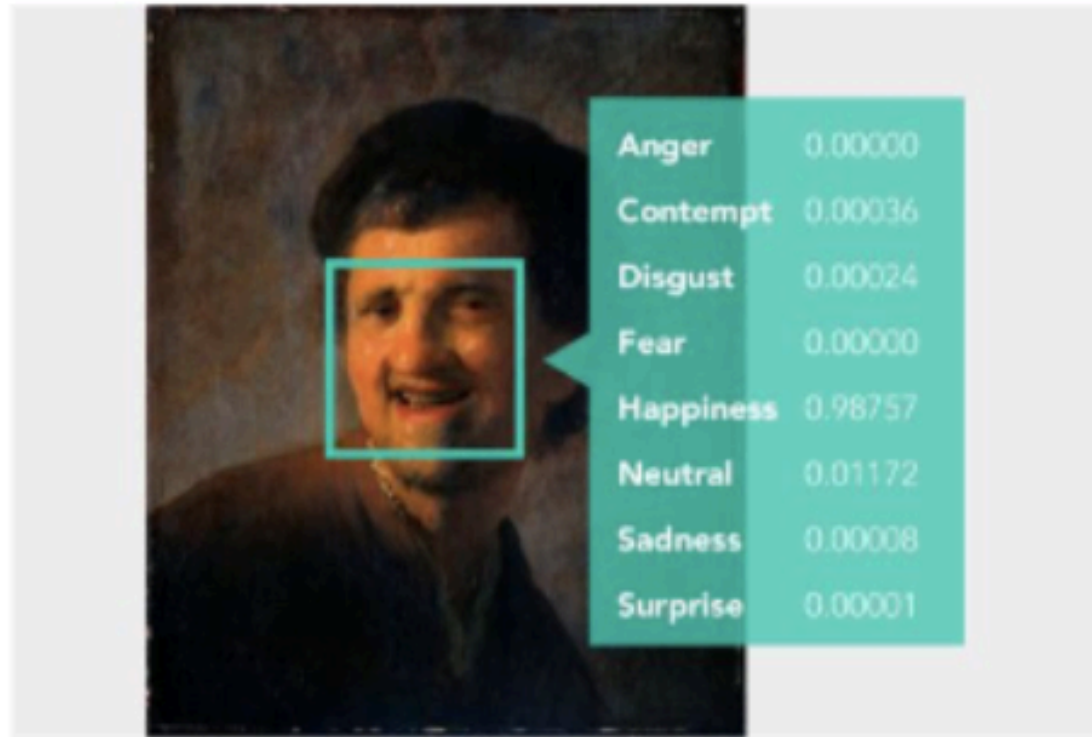
Kaynak: Ciecko, B. (2017), s.4.

Kaynak:https://towardsdatascience.com/the-little-robot-that-lived-at-the-library-90431f34ae2c

Kaynak: Shiomi, M. ve diğerleri, 2007. s.9.

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Teşekkürler!
Köszönöm!

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