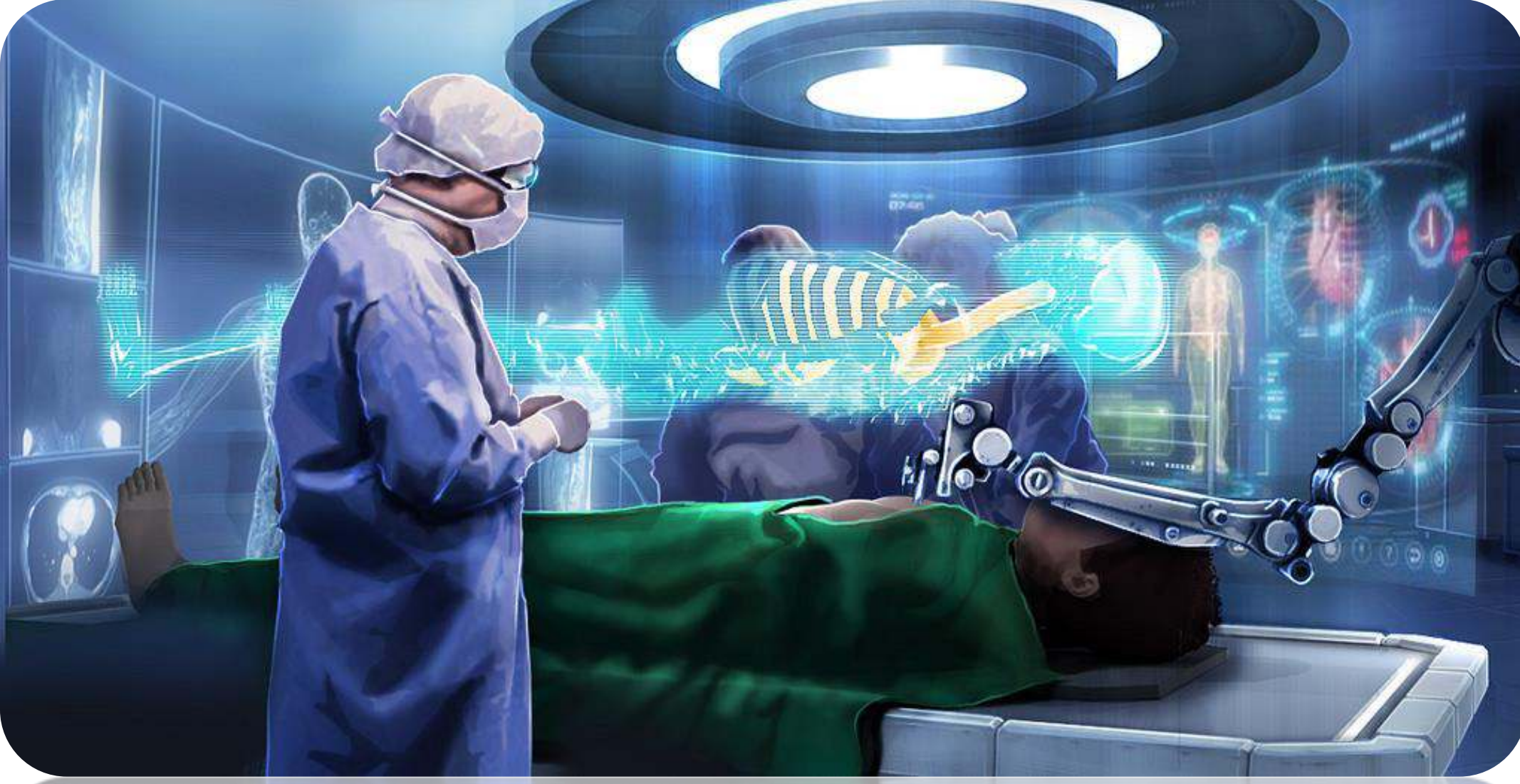




Yakın Gelecekte Cerrahiyi Ne Bekliyor?



Dr. Özer Makay
Ege Üniversitesi Hastanesi



Çıkar Çatışması Bildirimi





Bir hafta sonra...

Newsweek

“...Online alışveriş ve online topluluklar sağduyuya ihanet ediyor ve bunlar **gerçeklikten uzak birer fantezi...**”



All truth passes through
three stages.
First, it is ridiculed.
Second, it is violently opposed.
Third, it is accepted as being
self-evident.

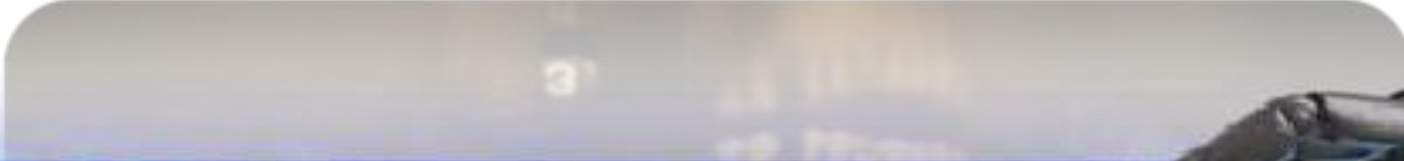
- Arthur Schopenhauer (1788-1860)

- Arthur Schopenhauer (1788-1860)





Cerrahi girişim – *Başlangıç...*



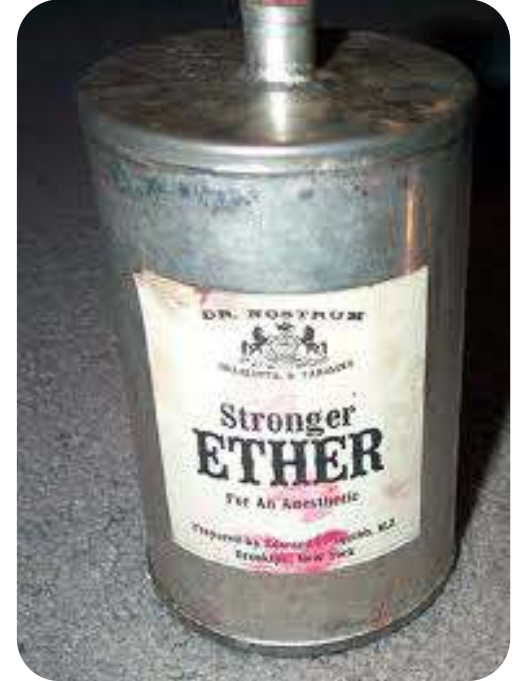
Cerrahi girişim – *Başlangıç...*



‘Bir kimseyi tunç bıçağı ile ameliyat yapar, ölümüne sebep olursa o hekimin elleri kesilmeli..’ **Hammurabi Kanunları** M.Ö. 1948-1905 (i. Ceylan 2012)



Cerrahi giriřim – *Mihen* taşları...



Cerrahi girişim – *Mihenk taşları...*



I. DÖNEM

Büyük kesi
=
Büyük Cerrah



II. DÖNEM

*Aynı cerrahi
ama
küçük kesi(-ler)*



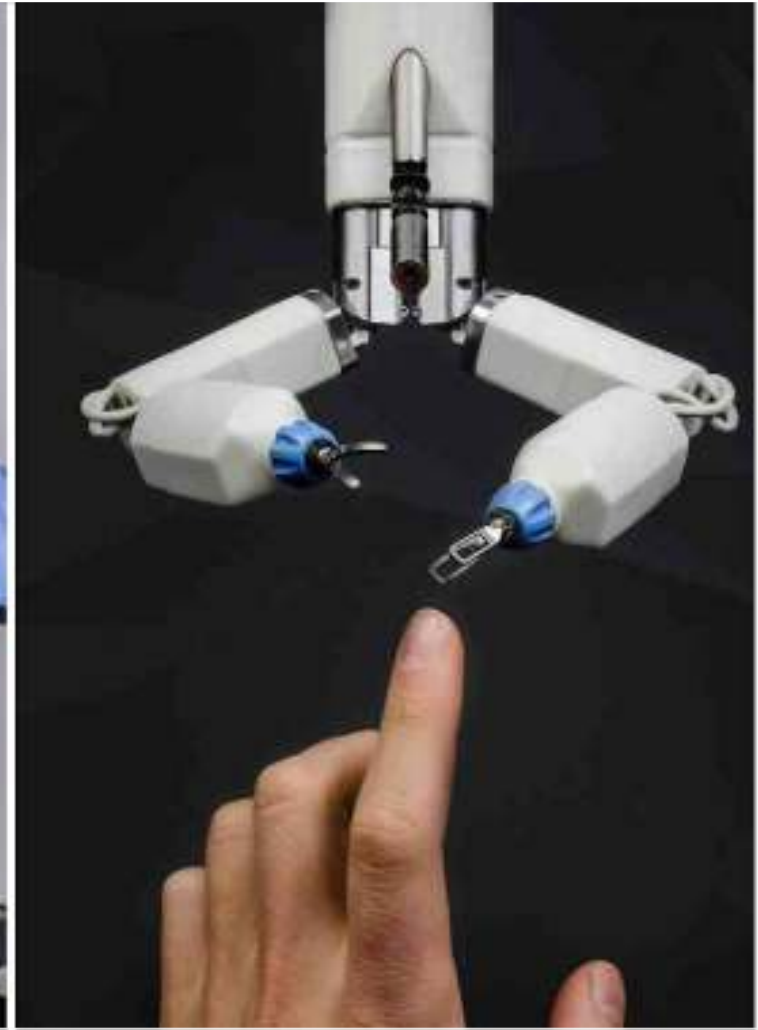


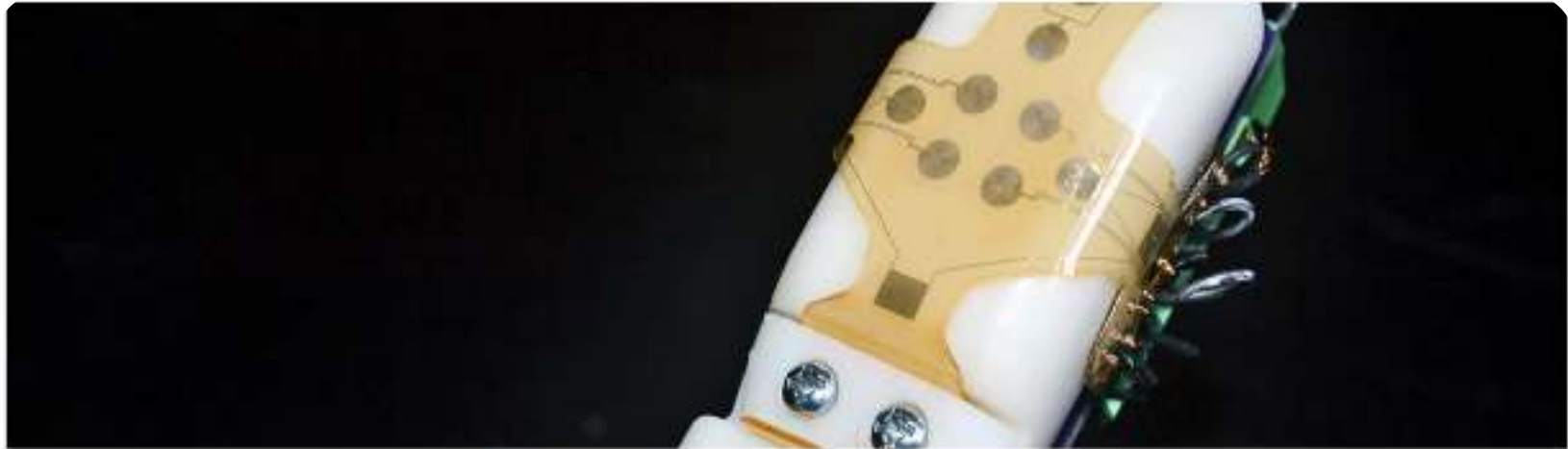


III. DÖNEM



NASA ve VIRTUAL INCISION





Hydro-Ink-based sensor: ADs can be strapped around a finger or any other part of a robot or prosthetic device or help identify a motion of hands (Credit: UCARag/Reuters/Scott Webster/Agos)

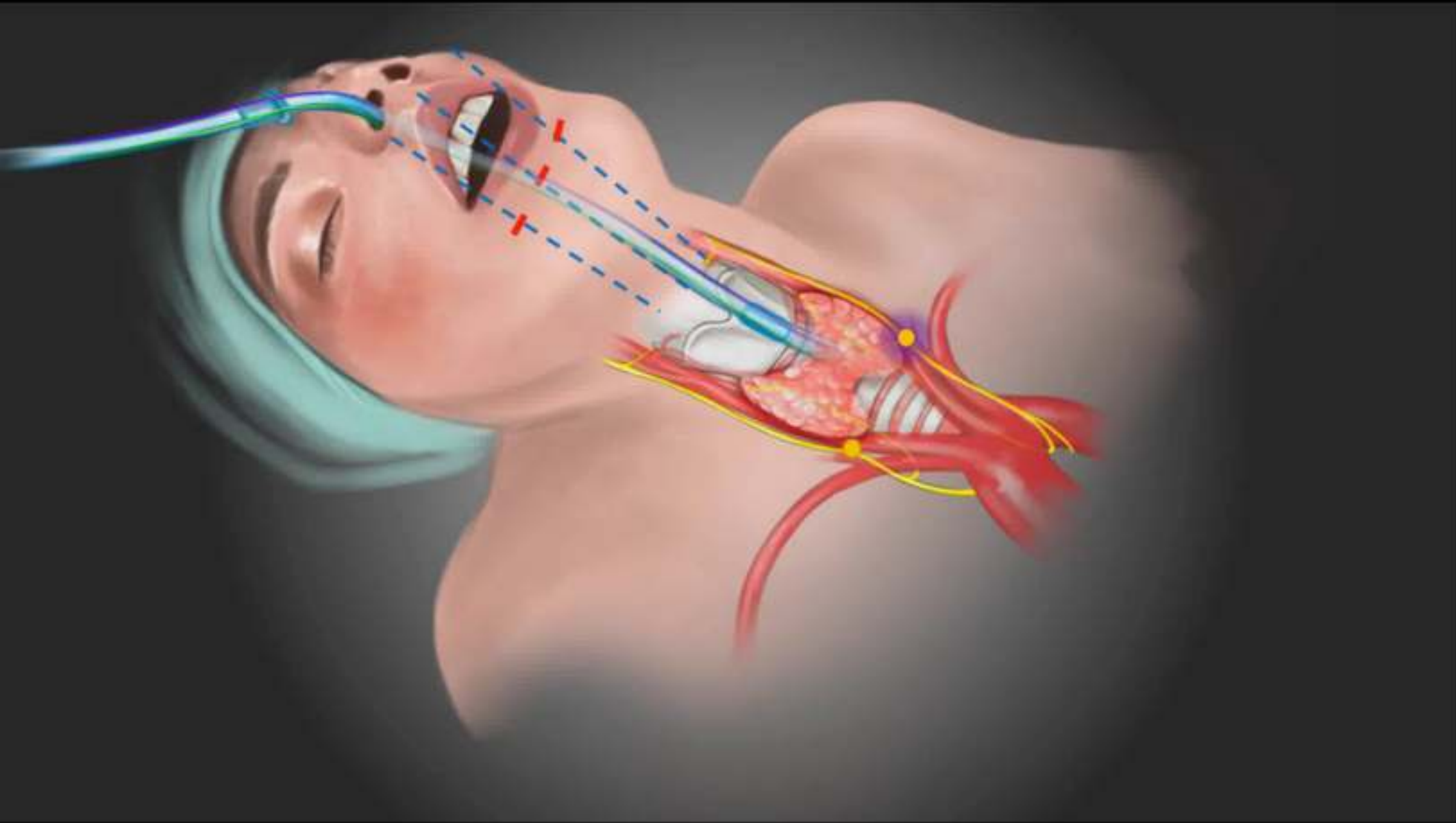
ROBOTS | UNIVERSITY OF WASHINGTON

'Skin' sensor gives robots better sense of touch

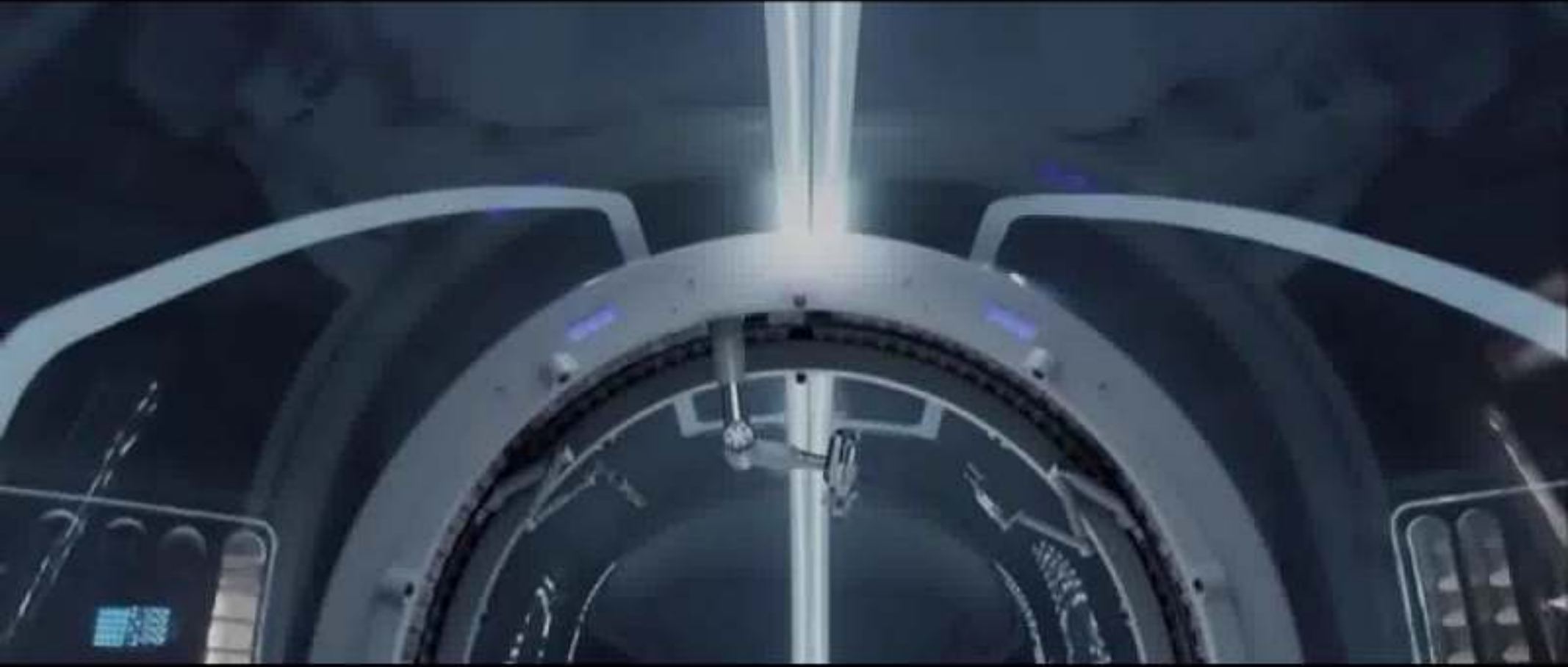
'Skin' sensor gives robots better sense of

ROBOTS | UNIVERSITY OF WASHINGTON



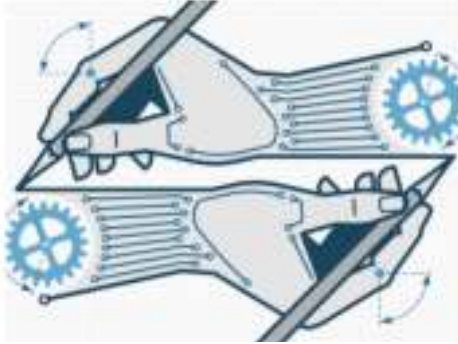
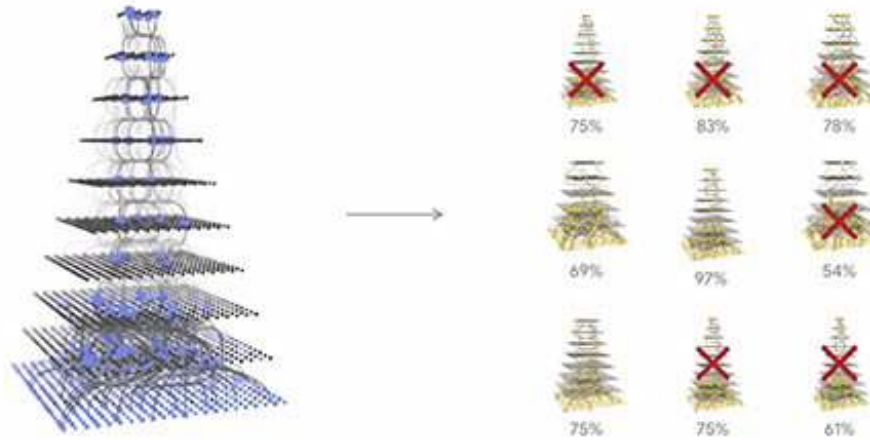


IV. DÖNEM



AutoML

Learning to Learn



Inovasyon, Teknoloji

Google'ın Yapay Zekâsı Kendini Çoğaltmayı Öğrendi

Google'ın, yapay zekâ (AI) sistemlerini oluşturmakta yardımcı olması için ürettiği yapay zekâsı AutoML'in görevini yerine getirmeyi başardığı açıklandı. AutoML, mühendislerin ...

Derya Öztürk - 17/10/2017

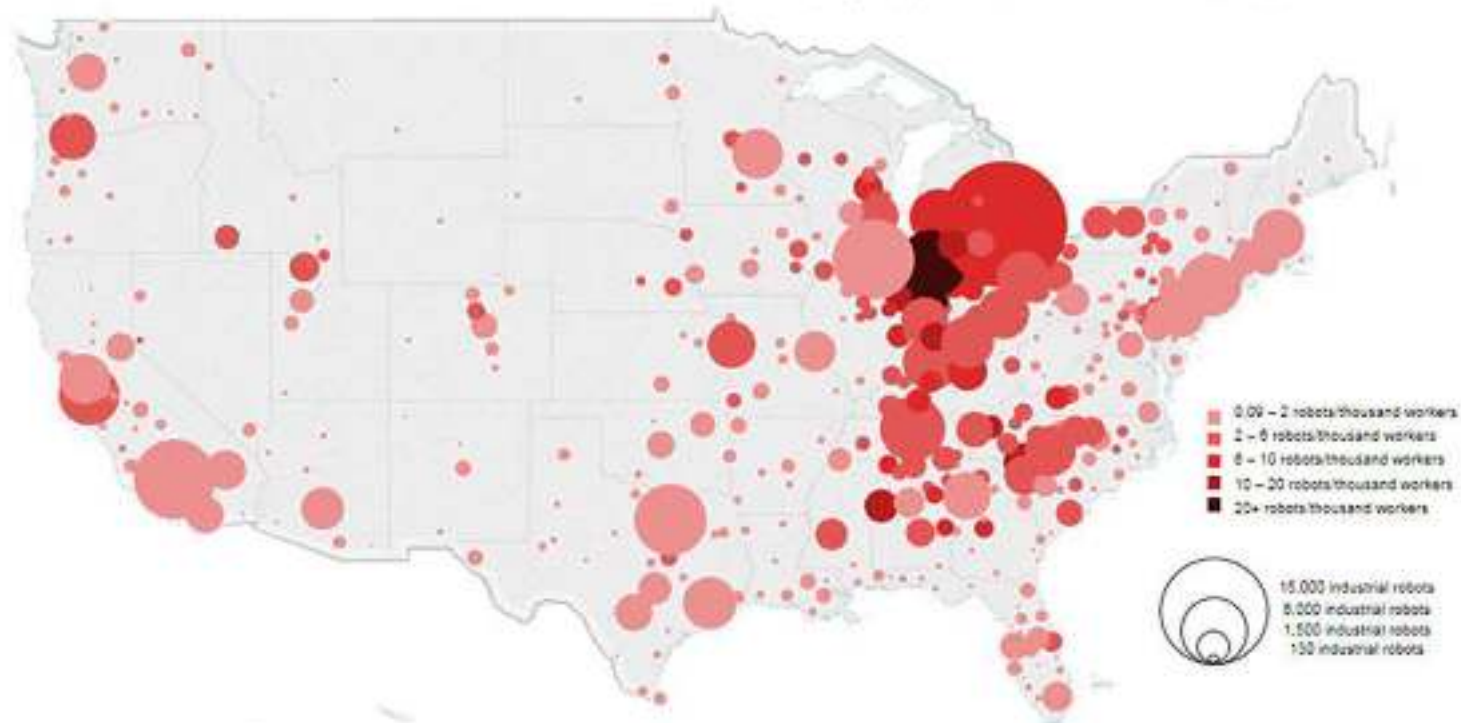


Google'ın yapay zekâ şirketi DeepMind'in Go oynayan yapay zekâsı AlphaGo'nun son versiyonu, kendi kendine defalarca oynadığı oyunlar sayesinde insanüstü yetenekler kazanmayı başardı. DeepMind tarafından yapılan açıklamada; bu durumun bizi bilimdeki en zor problemleri çözebilecek yapay zekâlar üretmeye bir adım yaklaştırdığı belirtiliyor.



Where the robots are

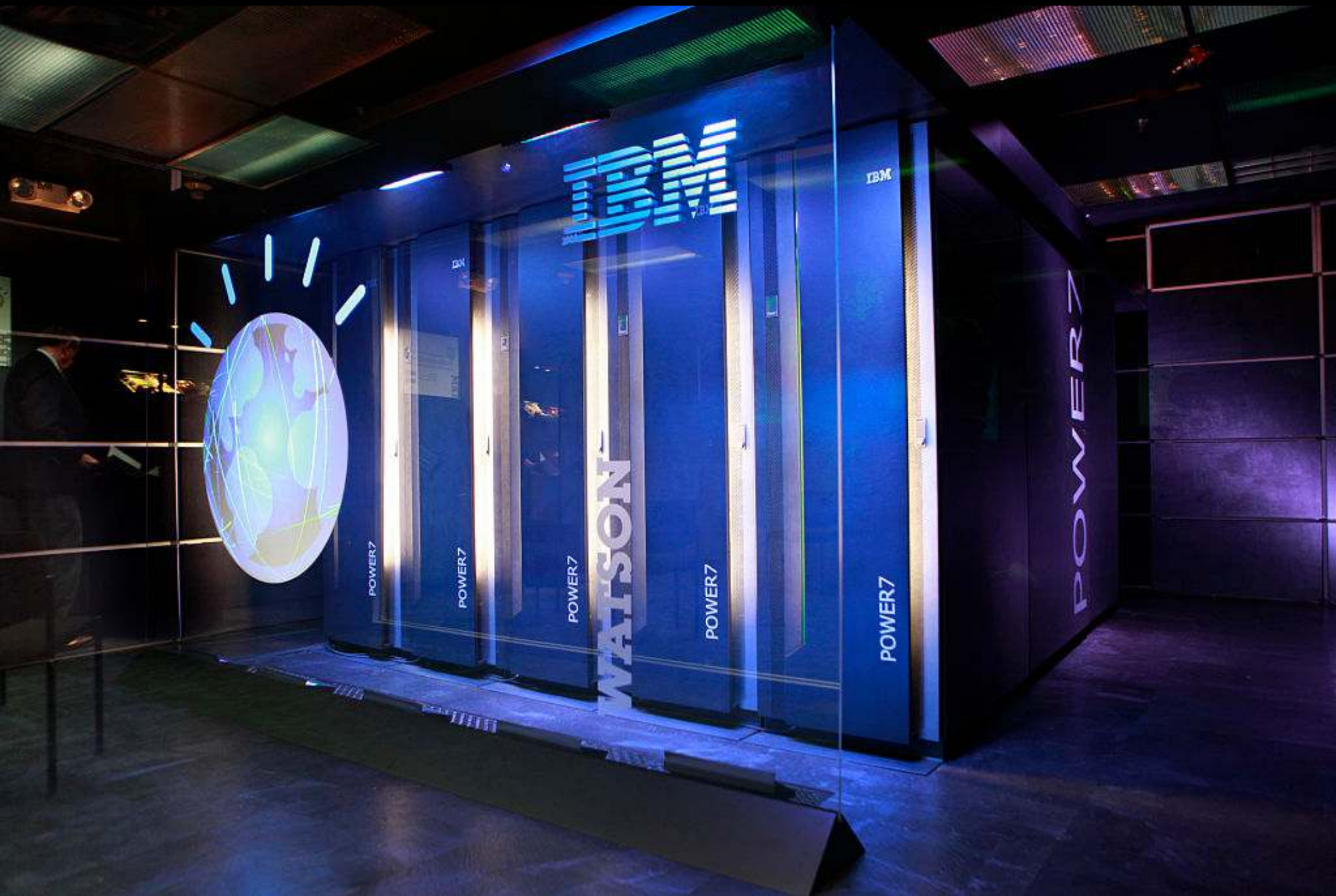
Number and incidence of industrial robots (per thousand workers) by metropolitan statistical area, 2015



Note: Robot incidence reflects private employment only
Source: Brookings analysis of International Federation of Robotics data

B Metropolitan Policy Program
at BROOKINGS







HIMSS 17

GINNI ROMETTY

CHAIRMAN, PRESIDENT, AND CEO
IBM

IBM CEO "Watson AI will change everything in Healthcare. Radiologists will lose jobs soon."



Bilişsel Asistan

EMR

Patient EMR

Patient Details

MRN: 040103110830840

Name: Lin J. Yamato

Age: 37

Summary

IMAGES

PHYSICIAN

DOCUMENTS

CLINICAL SUMMARY

Imaging Report

From date:

To date:

Show

Show all

Last:

Units:

Send to EMR

Reset

Imaging

Report

Imaging Details

Sort By:

☒ Modality

☐ Ordered by

☐ Date

Expand all

Collapse all

MRI

+

CT (3)

-

CT Chest (2)

02/07/2012:

Joanne Cameron / Chest

CT Abdomen (1)

08/12/2008:

Joanne Cameron / Abdomen

Chest CT Report

Referring Physician

Dr. Joanne Cameron

Source

N/A

Referral Date

01/05/2012

Electronically Signed

Dr. Joanne Cameron

HIDE IMAGE

Ordered by

Dr. Joanne Cameron

Indication

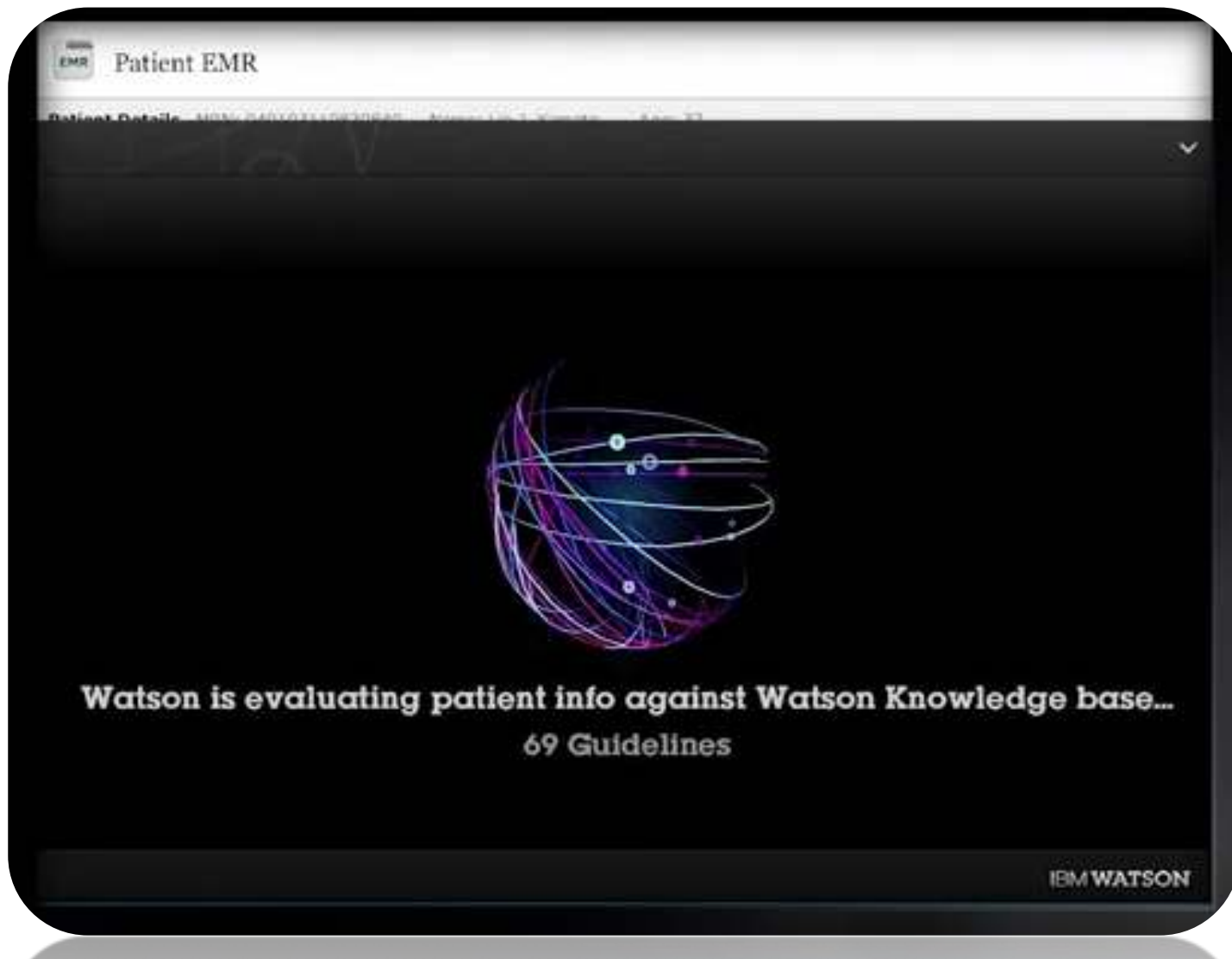
Abnormal chest x-ray

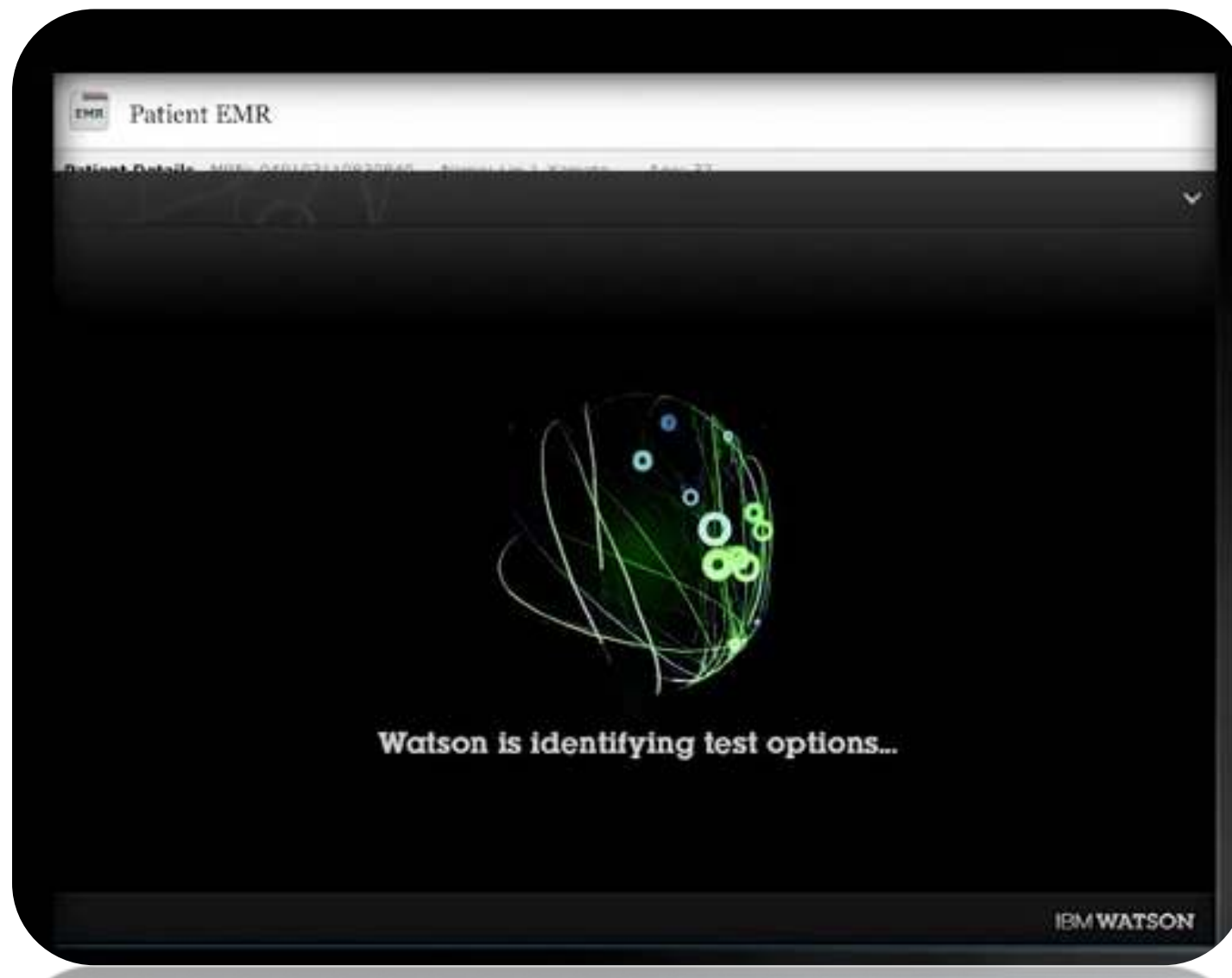
Status

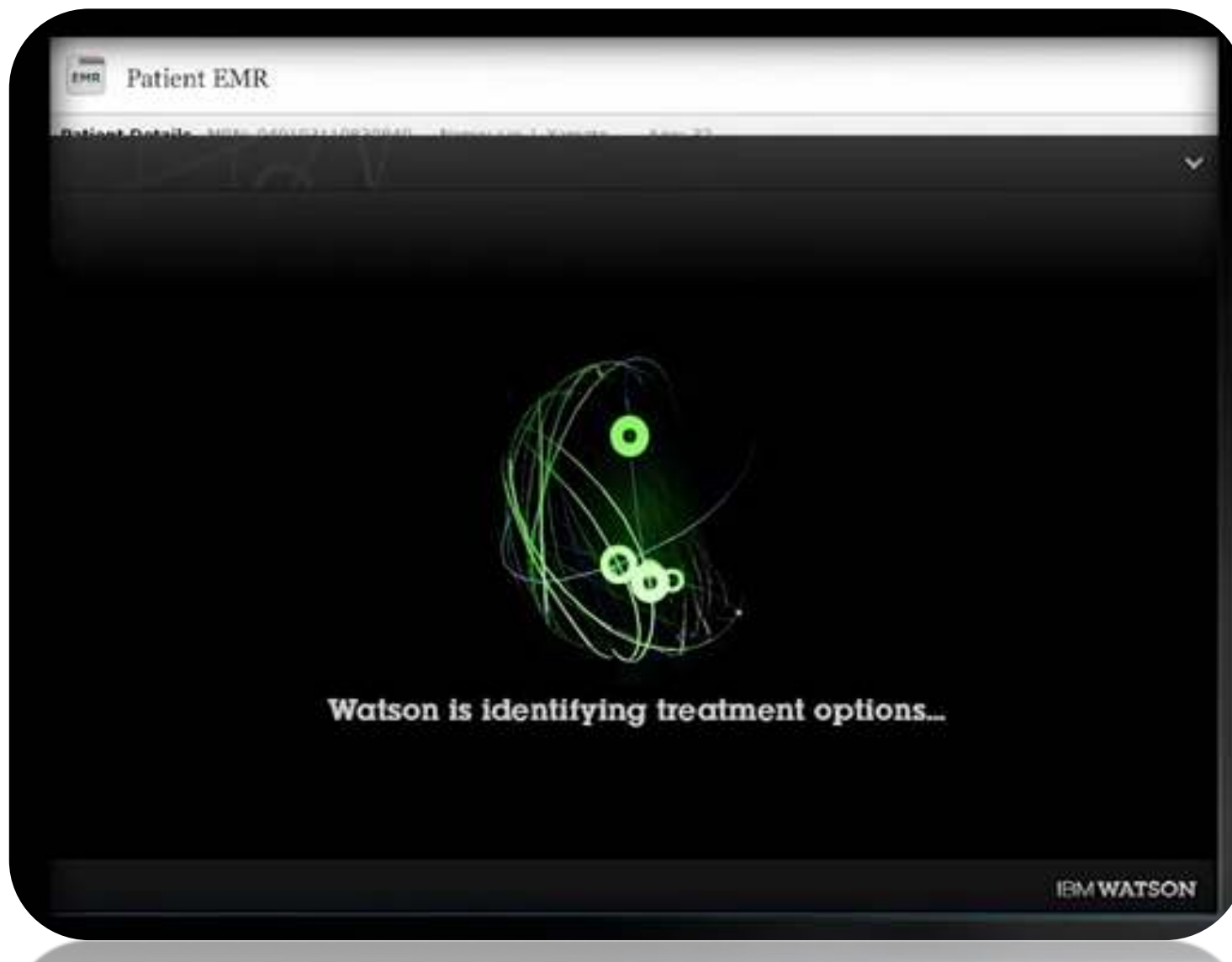
Signed

Ask Watson

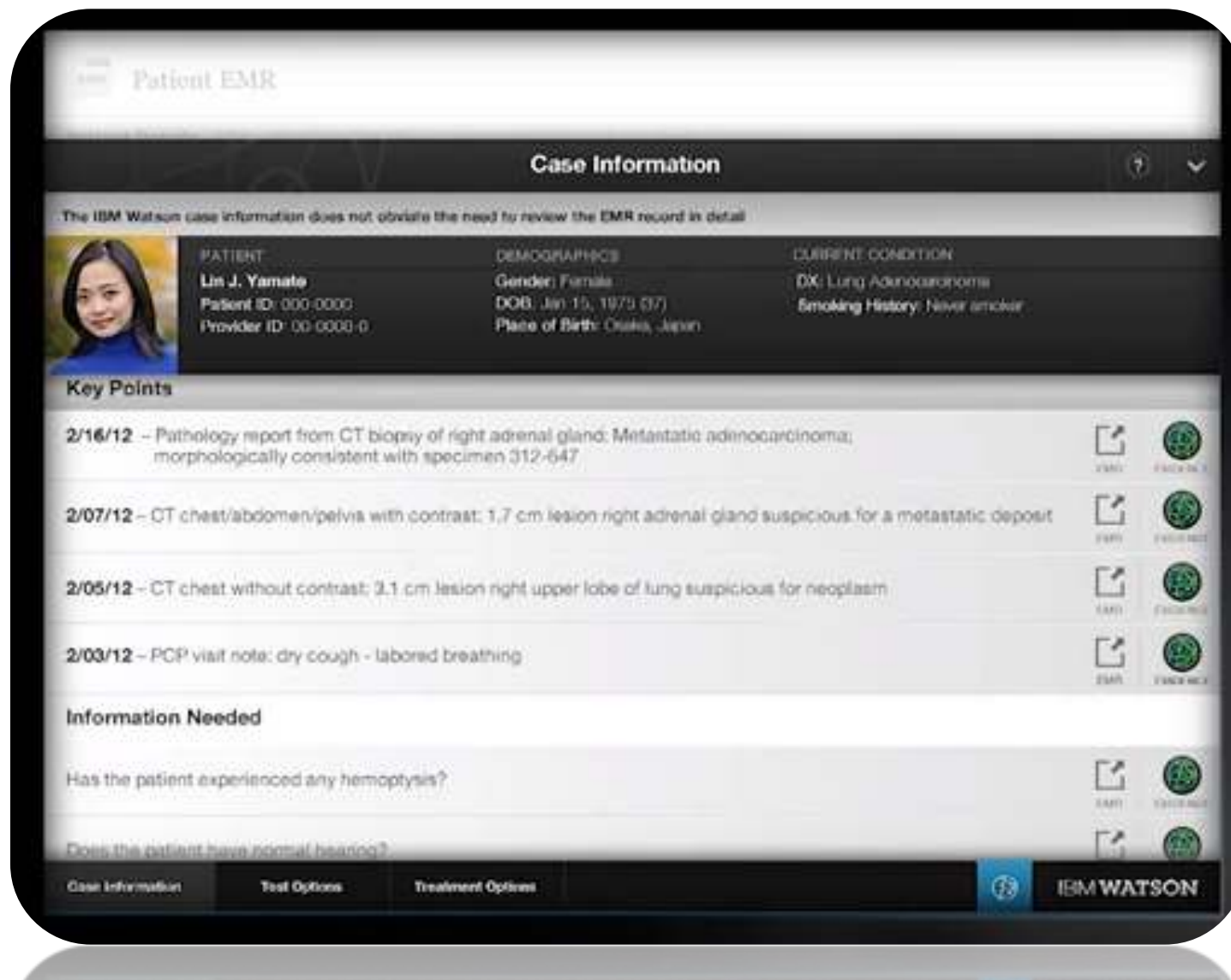


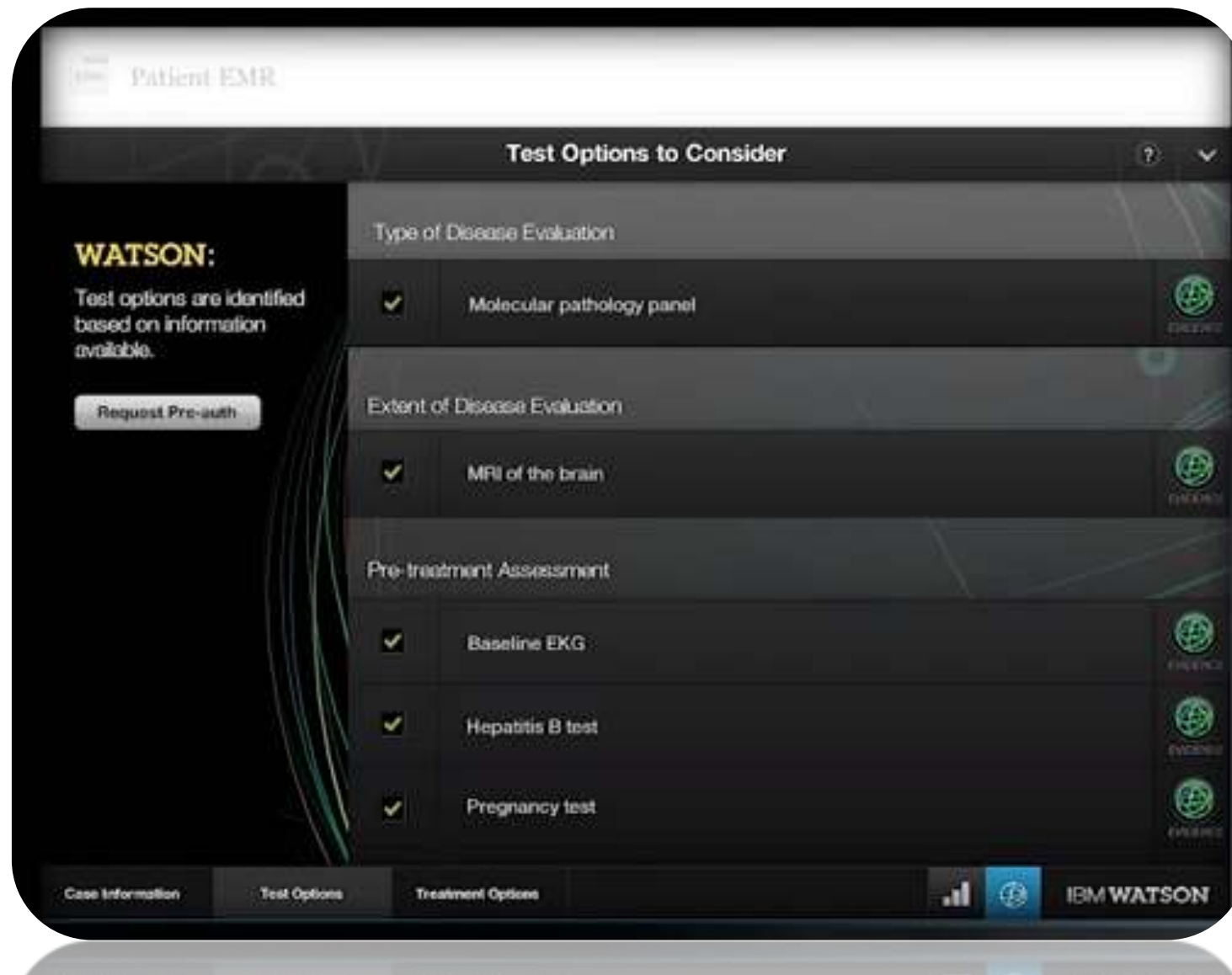






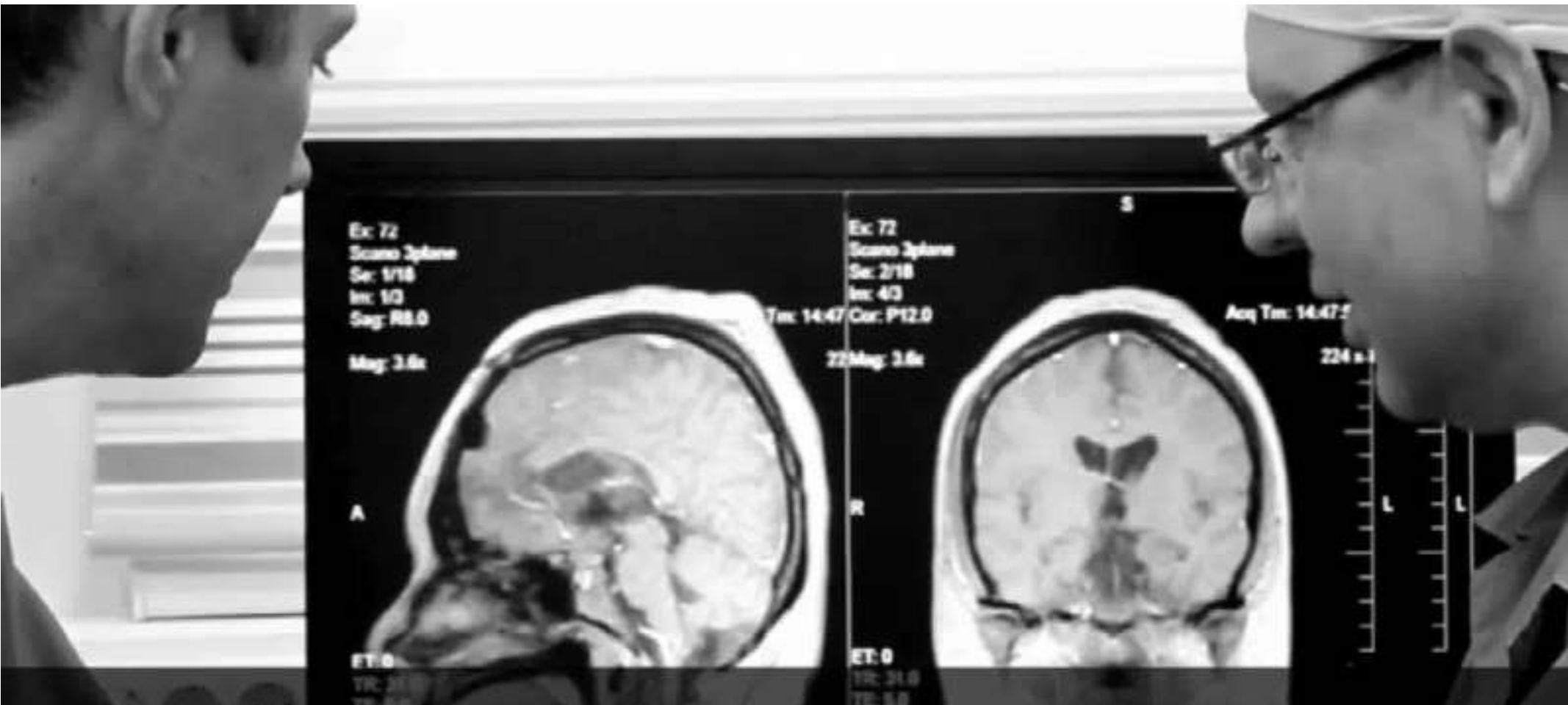








Sanal Gerçeklik (VR)



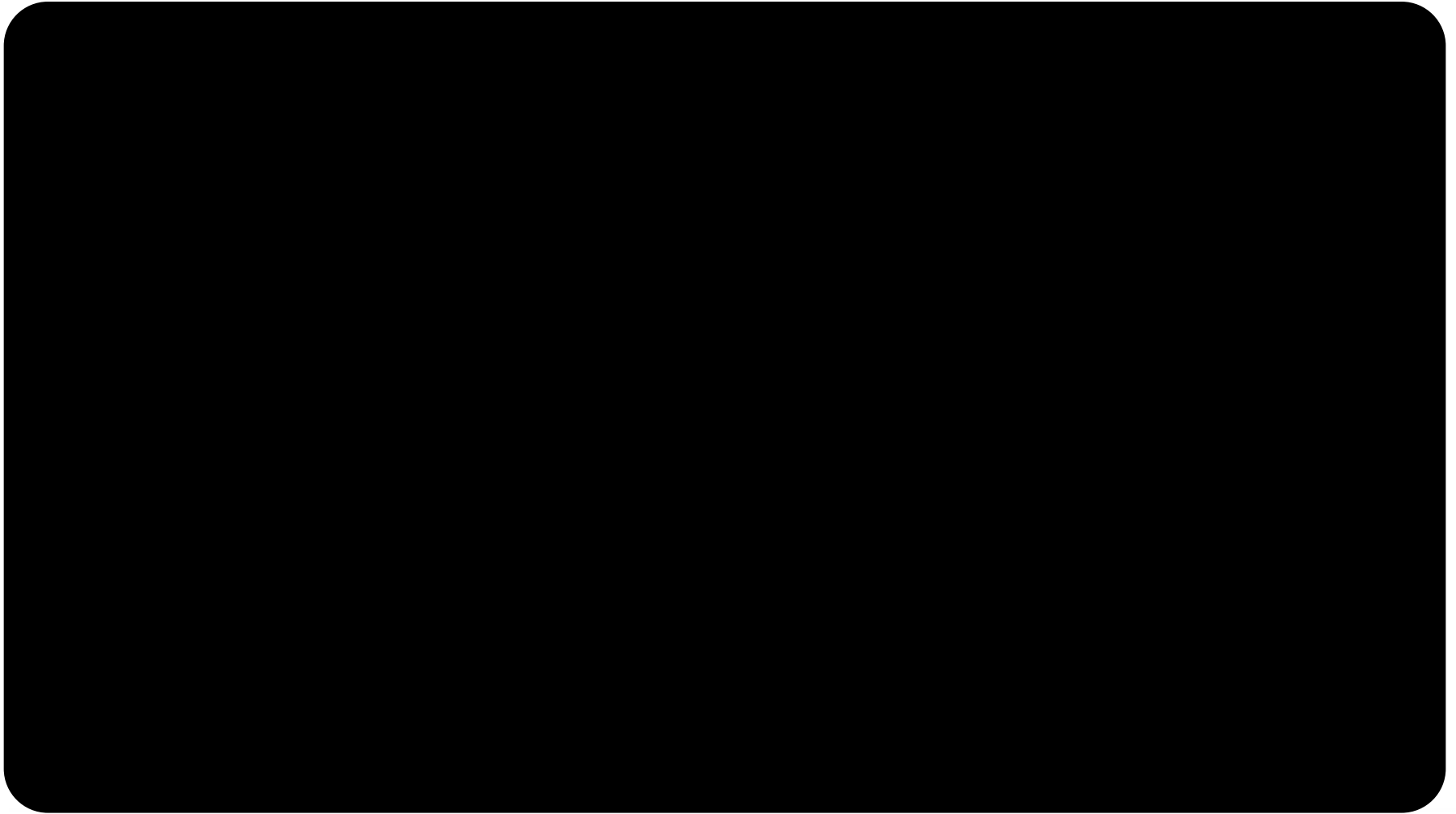
Sanal Gerçeklik (VR)



Artırılmış Gerçeklik (AR)



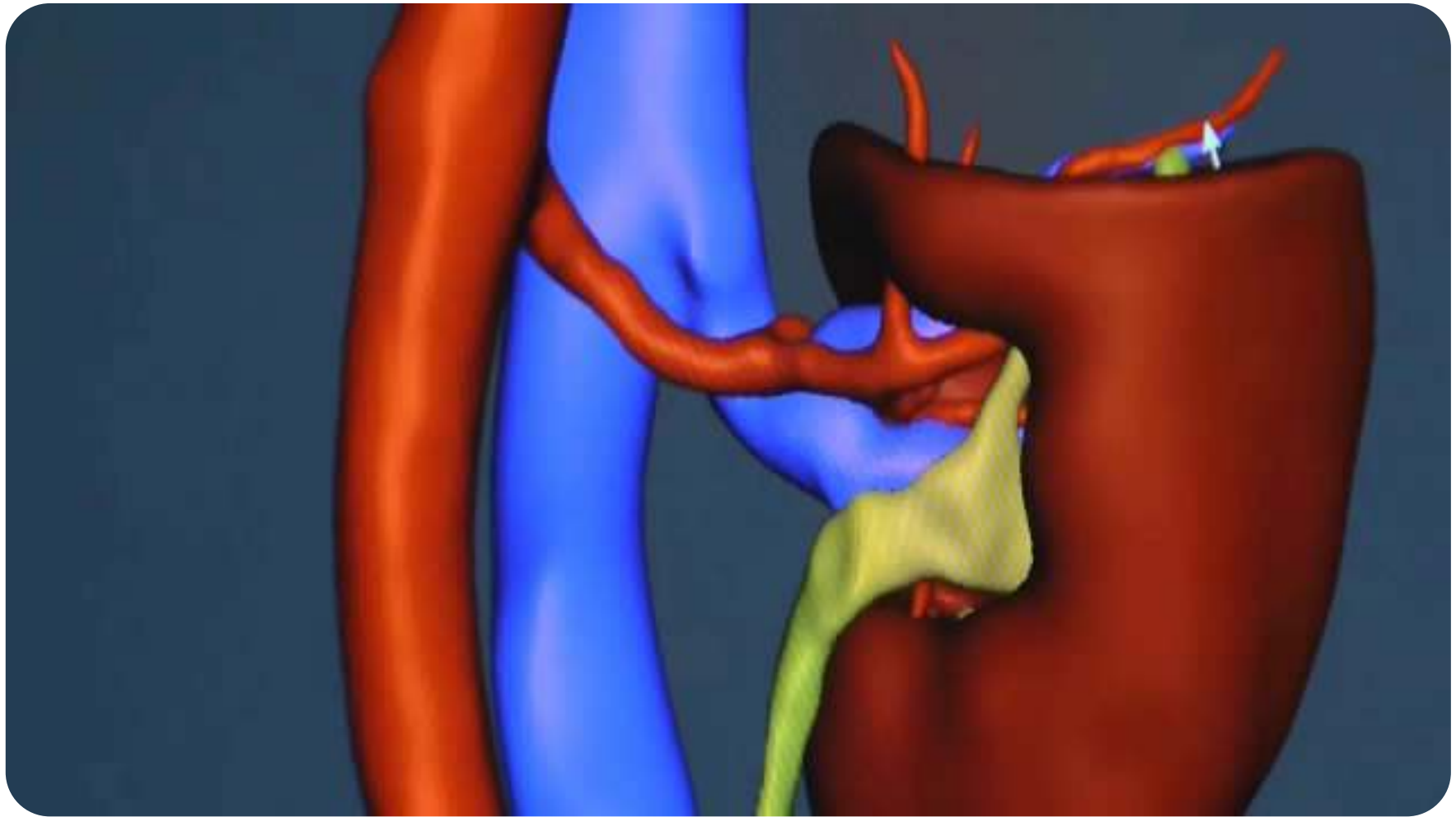
Artırılmış Gerçeklik (AR)



iKnife



Eğitim



Eğitim (VR)





A man and a woman are looking at a smartphone together on a city street. The man is on the left, looking intently at the screen. The woman is on the right, also looking at the phone. In the background, a yellow taxi is visible, and the scene is slightly blurred, suggesting a busy urban environment.

INDY/TECH

**'KRACK' WI-FI BREACH MEANS EVERY
MODERN NETWORK AND DEVICE IS
VULNERABLE TO HACK, RESEARCHER**

SAYS

2YA2



”Medeniyet yolunda başarı,
yenileşmeye bağlıdır...”

K. Atatürk