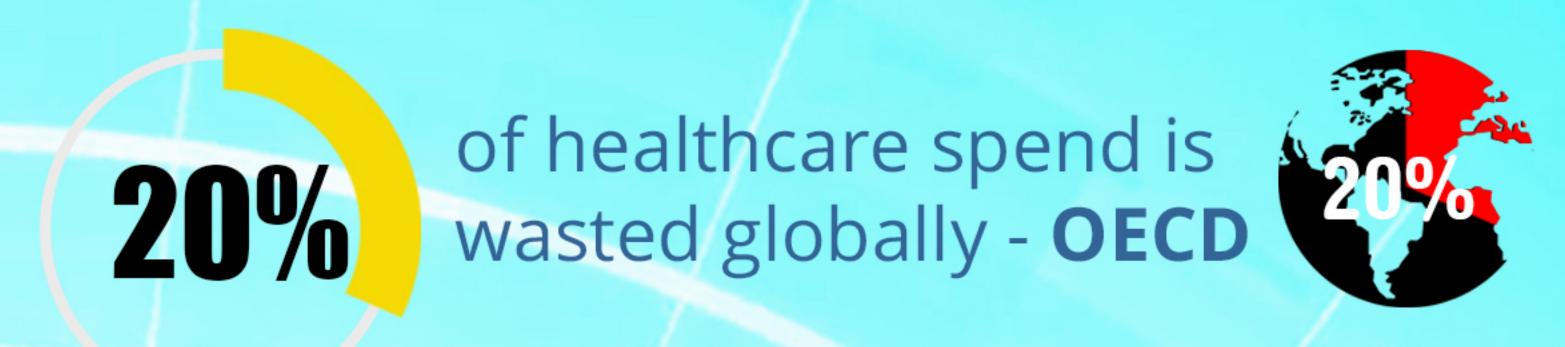


Al Will Transform Healthcare



Significant cost reductions in healthcare



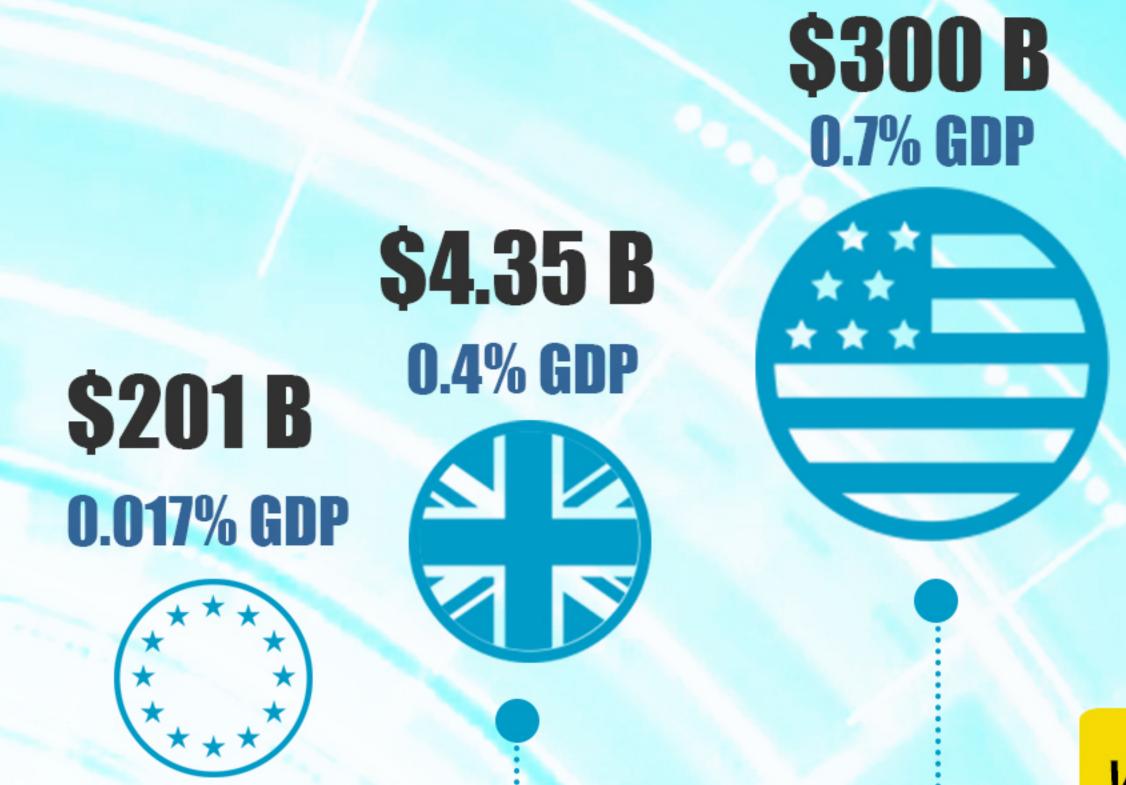


Al has the potential to:

Improve medical treatment outcomes by 30-40 percent



Potential cost savings of AI healthcare initiatives...



Reduce costs by as much as 50%

We are at a tipping point of how we provide care.

-Sir Malcolm Grant, Chairman of NHS England

Augmented clinicians



The AI market in healthcare is set to grow 11x between 2014 and 2021...



Robot-assisted surgery \$40B



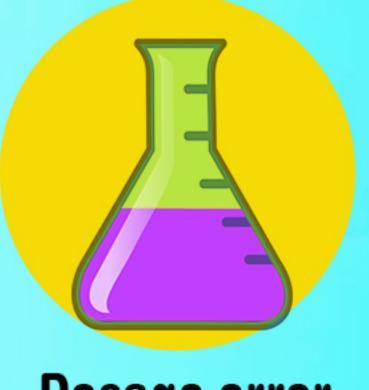
Virtual nursing assistants \$20B



Administrative workflow assistance \$18B



Fraud Detection \$17B



Dosage error reduction \$16B



Connected machines \$14B

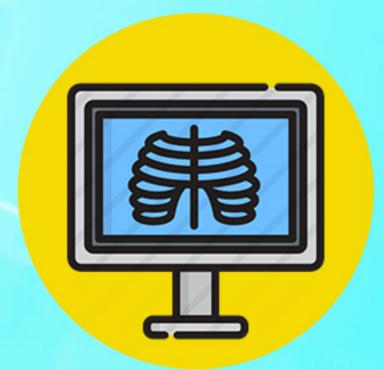


USA

Clinical Trial Participant Identifier \$13B



Preliminary Diagnosis \$5B



Automated Image Diagnosis \$3B



Cybersecurity \$2B

Total = \$150B

Health chatbots are already serving an important function in streamlining initial patient interactions. Babylon Health, a UK-based health startup, have developed a chatbot that provides NHS patients with 24/7 access to health advice, doctors, and diagnostic tools.



Our goal is not to replace the clinician, but make her more efficient and effective - to augment the clinician with actionable information.

> - Roy Smythe, M.D., Chief Medical Officer of Philips 🔷 🔷

Sources

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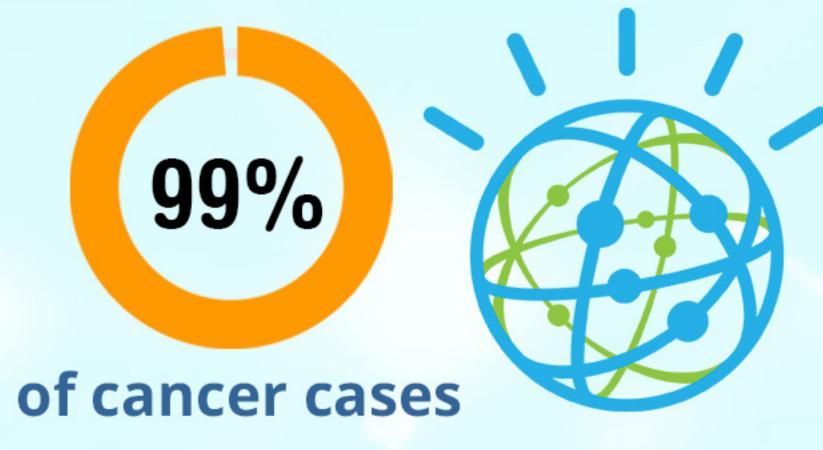
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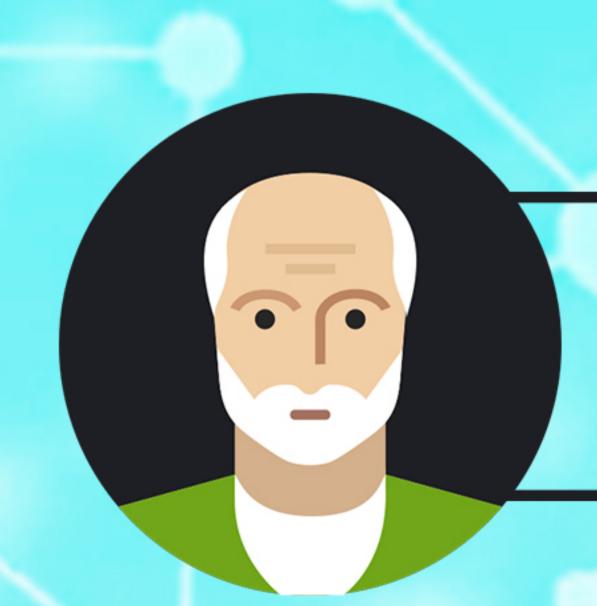
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More efficient diagnoses

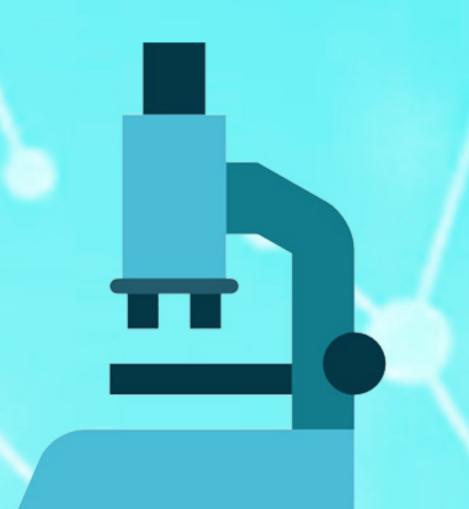
BM Watson recommends same treatment as doctors in





Al can now predict patient lifespans with 69% accuracy

An Al system developed by an international team of scientists can accurately detect skin cancer in 95% of images, whereas a team of 58 dermatologists was accurate 87% of the time



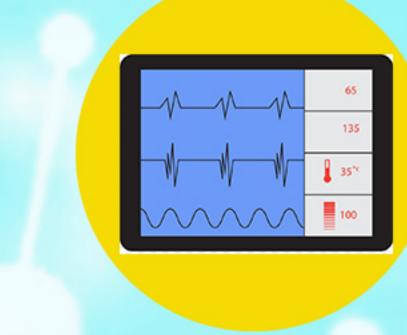


More engaged patients

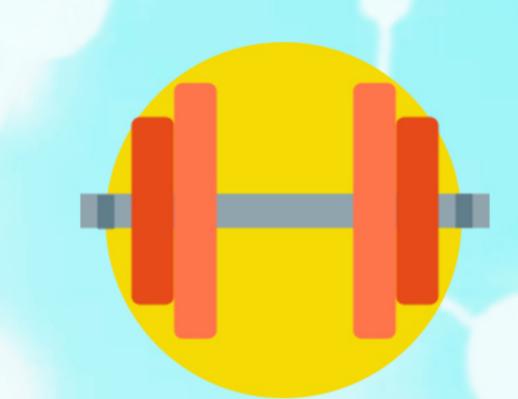
of consumers worldwide open to receiving Al-enabled healthcare



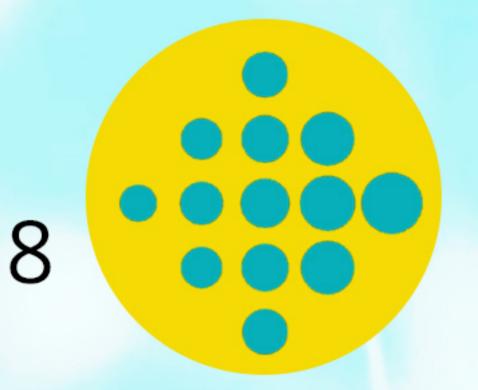
open to Al monitoring heart conditions and advising treatment



open to customised advice for fitness and health based on preferences and health record



55.8B This will be supported by the huge market in wearable technology - valued at \$5.8 billion in 2018





More personalized treatment

Average percentage of patient population for which a particular drug class is ineffective:



40%

43%

50%

75%

Anti depressants

Asthma drugs

Diabetes drugs **Arthritis drugs** Today...

Alzheimer's drugs

Cancer drugs

of all new drugs in development are personalized medicines

development are personalized of oncology drugs in

There are enormous opportunities for AI in the pre-clinical discovery stage. Our industry will be transformed through the use of digital data and analytics. That's obvious.

Karenann Terrell

Chief Digital & Technology Officer @ GSK