AI IN 12 MINUTES FOR HEALTHCARE

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1/24
MOTIVATION - WHY AI

Enhancing diagnostic accuracy
Personalized patient care
Efficient clinical operations
Predictive analytics for disease outbreaks
Drug discovery and development acceleration

2/24
INDUSTRY

Hospitals and Clinics
Pharmaceutical Companies
Medical Devices Manufacturers
Health Insurance Providers
Research Institutions

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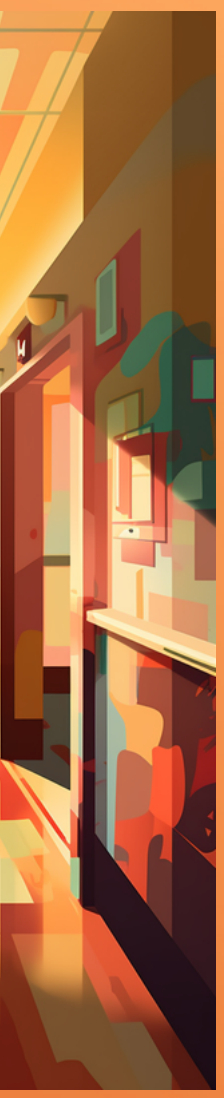

3/24
STRATEGIC TRENDS

Telemedicine and remote monitoring
AI in diagnostic imaging
Wearable health technology
Personalized medicine
Robotic surgery
Blockchain for patient data
AI in drug discovery
Predictive analytics in patient care
Digital therapeutics
EHR optimization with AI

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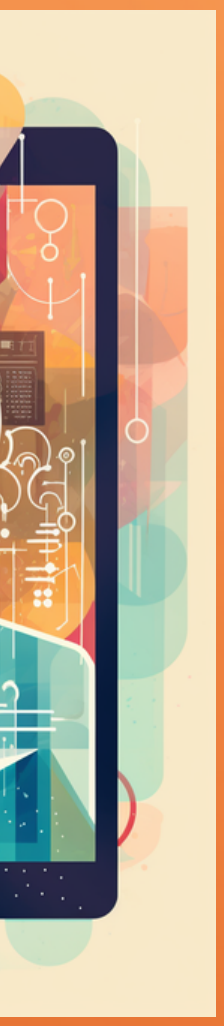
4/24
WHY CHANGE?



Aging global population
Rising healthcare costs
Chronic disease prevalence
Need for personalized care
Digital health data growth

5/24
LEADING
THE CHANGE

GE Healthcare (Medical imaging AI)
Siemens Healthineers (AI in diagnostics)
Philips Healthcare (AI-driven patient monitoring)
Pfizer (AI in drug development)
Medtronic (AI in medical devices)

6/24
DIGITAL TRANSFORMATION

AI-driven diagnostic tools
Robotics in surgery
Telehealth platforms
Blockchain for medical records
Predictive analytics in patient care
Wearable health monitors
Natural Language Processing for EHRs
AI in drug discovery
Virtual health assistants
Machine learning in radiology

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AI DISRUPTION

Early disease detection algorithms
AI in pathology for accurate diagnosis
Chatbots for patient engagement
AI-driven personalized treatment plans
Robotics in surgery and rehabilitation
AI in mental health therapy
Predictive analytics in epidemic tracking
Virtual nursing assistants
AI in genomic sequencing
Real-time health monitoring systems

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8/24
GREAT EXAMPLES OF AI

IBM Watson Health for patient data analysis
Google DeepMind Health for medical research
Babylon Health's AI chatbot for consultations
Zebra Medical Vision for radiology AI
Butterfly Network's AI-powered ultrasound device
AI-driven surgical robots by Intuitive Surgical
Oncora Medical for precision radiation therapy
Tempus for AI in precision medicine
PathAI for AI-powered pathology
Prognos for disease prediction analytics

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9/24 ECOSYSTEM REQUIREMENTS

Interoperable electronic health records.
Regulatory frameworks for privacy and security.
Partnerships between tech companies and healthcare institutions.
Advanced data analytics infrastructure.
Continuous AI training for healthcare professionals.

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AI ⏩ SUSTAINABILITY

Reduced healthcare resource waste

Enhanced patient care efficiency

Lower carbon footprint in telemedicine

AI-driven precision medicine reduces over-treatment

Efficient clinical trials for sustainable drug development

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11/24
NEW RISKS - ETHICAL, LEGAL, SOCIAL

Patient data privacy breaches
AI algorithm biases
Over-reliance on AI diagnostics
Ethical concerns in patient care
Legal implications of AI decisions

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AI MISUSE EXAMPLES

AI-based misdiagnosis (due to biased data)

Unauthorized access to health data

AI-generated fake pharmaceutical research

Manipulation of AI-driven health insurance claims

Over-reliance on AI, neglecting human oversight

13/24

THREE AI DILEMMAS

Should AI replace human decision in critical care?

How to balance AI efficiency with patient privacy?

Addressing AI biases in healthcare decisions?

14/24 ORGANIZATIONAL REQUIREMENTS

Commitment to ethical AI use

Infrastructure for AI integration

Continuous AI training for healthcare professionals

Collaborative approach with technology partners

Strong data management and governance

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STEP BY STEP APPLICATION

Define healthcare AI objectives
Select appropriate AI technologies
Ensure data quality and accessibility
Train medical staff on AI tools
Monitor, evaluate, and iterate

BEST PRACTICES

Prioritize patient-centered AI solutions

Emphasize data privacy and security

Involve clinicians in AI development

Pilot before full-scale implementation

Regularly update AI models

17/24
AI MODELS

Convolutional Neural Networks for imaging
Natural Language Processing for EHRs
Predictive models for patient outcomes
Machine learning for genomic data
Reinforcement learning in robotic surgery

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18/24
GOOD DIGITAL TWINS

Digital twins of human organs
Virtual patient models for training
Hospital operational models
Digital replicas of medical devices
AI-based drug development simulations

19/24
COOL NORWEGIAN CASES

No Isolation (Communication robots)
EpiGuard (Medical isolation and transport)
Dignio (Remote patient monitoring)
CheckWare (Digital health assessments)
Cardiaccs (Cardiac monitoring technology)

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20/24
GLOBAL LEADERS

United States (Innovative medical technology)
Germany (Advanced healthcare research)
Japan (Robotics in healthcare)
Israel (Healthcare AI startups)
United Kingdom (Health data analytics)

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21/24
FUTURE JOBS

AI healthcare data analysts
AI ethics compliance officers
Telehealth operation managers
AI-driven medical device technicians
Personalized medicine coordinators

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THE FUTURE OF AI

AI in personalized genomics

AI-driven global health monitoring

Ethical AI frameworks in healthcare

AI in mental health therapy

Augmented reality in medical training

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23/24 RECOMMENDED READING

"Deep Medicine" by Eric Topol

"The Patient Will See You Now" by Eric Topol

"AI in Health" by Terrence Sejnowski

"Machine Learning for Healthcare" by Gerardo Herrera Corral

"The Digital Doctor" by Robert Wachter

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24/24
GOOD TED TALKS

"What AI in healthcare could look like" by Suchi Saria

"How we can predict the next pandemic" by Larry Brilliant

"The future we're building — and boring" by Elon Musk (AI implications)

"The pharmacy of the future? Personalized pills, 3D printed at home" by Daniel Kraft

"A doctor's vision for the future of healthcare" by Daniel Kraft

WHAT WOULD YOU ADD?

LET ME KNOW!

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