

Solving



Medical

Mysteries

A celebratory review of a brilliant medical mind



HEALTHhouse

a disease Discovery Tool



AGENDA



Inspiration
Medical Advances
Medical Facts
Definitions
Data Cleaning
Live Demo
Limitations
Implications
Questions

HEALTHHOUSE

MEET OUR TEAM

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emmanuel presley

sherhone grant



S M U MD

The information provided should not be used for diagnosing or treating a health problem or disease, and those seeking personal medical advice should consult with a licensed physician.

Disclaimer

Always seek the advice of your doctor or other qualified health provider regarding a medical condition.

WE NOT
DOCTORS, OKAY?

A close-up portrait of Hugh Laurie as Dr. Gregory House. He has short brown hair, blue eyes, and a well-groomed, slightly graying beard and mustache. He is wearing a white medical coat over a light green shirt. The background is a plain, light color.

TV SERIES

HEALTHOUSE

2004-2012

HOUSE

INSPIRATION

FOX NETWORK

HUGH LAURIE

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

GENERAL

PHYSIOLOGICAL

PHYSICAL

PSYCHOLOGICAL

ACHEs/PAINS/DISCOMFORT

Note: Physical & Physiological may contain an overlap in symptoms.

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

Physical

Definition: These symptoms can be seen with the naked eye. Note: Physical and Physiological may overlap.

Note: Physical & Physiological may contain an overlap in symptoms.

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

Physiological

Definition: These symptoms may be visible with the naked eye, but they also encompass the neurological imaging, X-Rays, and similar high-powered medical devices used to detect internal abnormalities present in the human body. Note: Physical and Physiological may overlap.

Note: Physical & Physiological may contain an overlap in symptoms.

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

General

Definition: typically common and nonspecific bodily responses to health dysfunction. Frequently occur in various conditions unrelated to disease specific diagnosis. Fatigue, malaise, lethargy, nausea, vomiting, headache, fever, congestion, runny nose, diarrhea, and constipation are classified as general symptoms

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

Aches/Pain/Discomfort:

Definition: characterized by physical pain, hurts, aches, stiffness, irritations, tingling, internal itching

DEFINITIONS AND TERMINOLOGY

5 Categories of Symptoms

Psychological

Definition: characterized by the mind such as mental, emotional, cognitive (functional decline in memory), self, identity, ego,

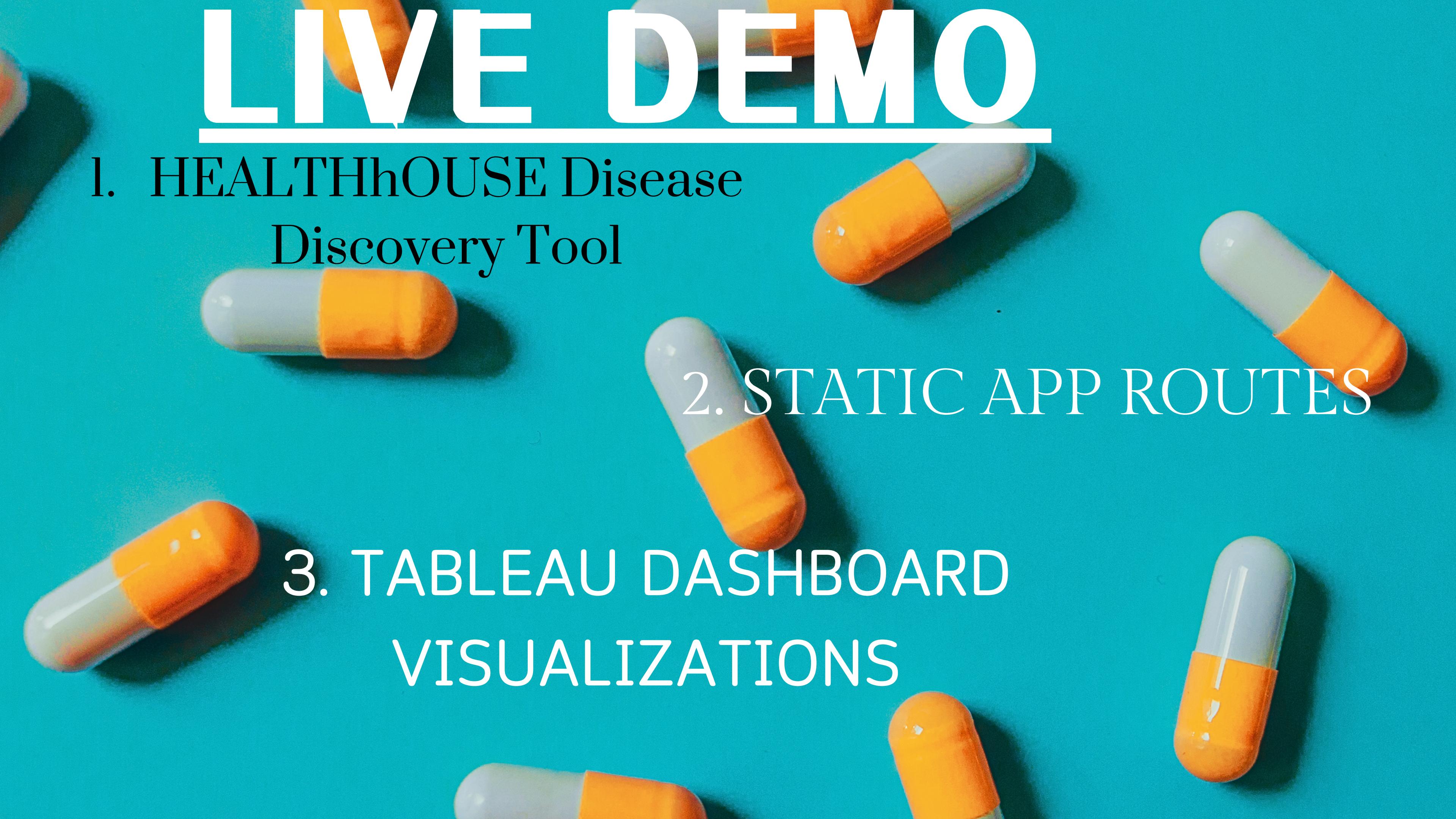


HOUSE, SEASON 3

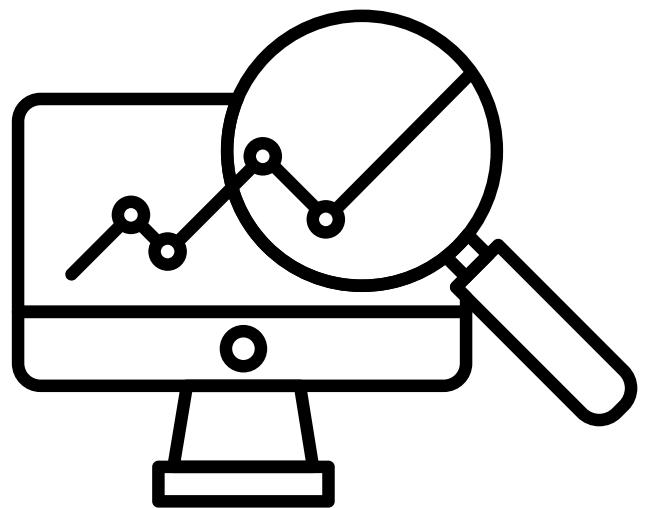
"Perhaps I should've
taken my medication
before this lecture.".

GUEST DOCTOR

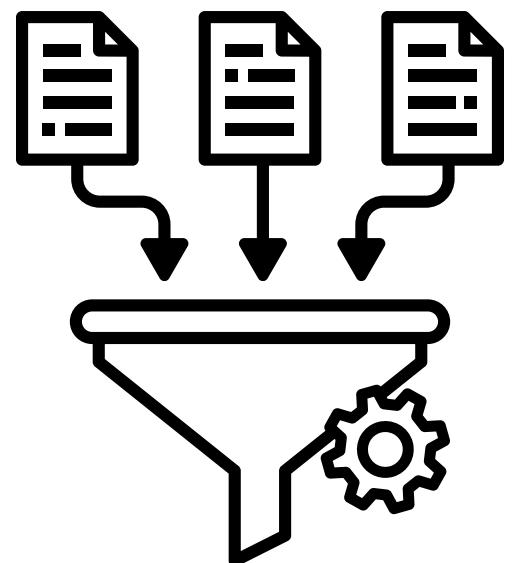
LIVE DEMO



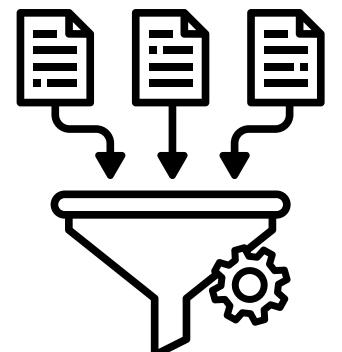
1. HEALTHhOUSE Disease Discovery Tool
2. STATIC APP ROUTES
3. TABLEAU DASHBOARD VISUALIZATIONS



DATA CLEANING PROCESS

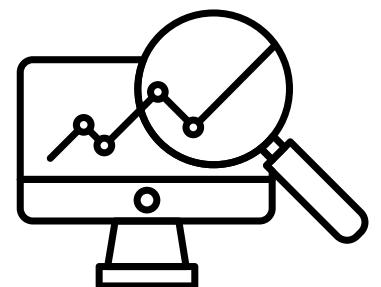


DATA CLEANING PROCESS



Analyzed data

Created 5 categories to appropriately classify 133 symptoms in



Analyzed data

dropped null, duplicate, or missing values



Analyzed data

dropped unnecessary columns,
updated spelling and incorrect
naming errors of symptoms





HOUSE, S1

Yes, feel free to
exclude any symptom
if it makes your job
easier.

DR. HOUSE



{.js}

JavaScript

STATIC APP ROUTES



HOUSE, S3

IT'S NOT LUPUS.

DR. HOUSE

TABLEAU DASHBOARD





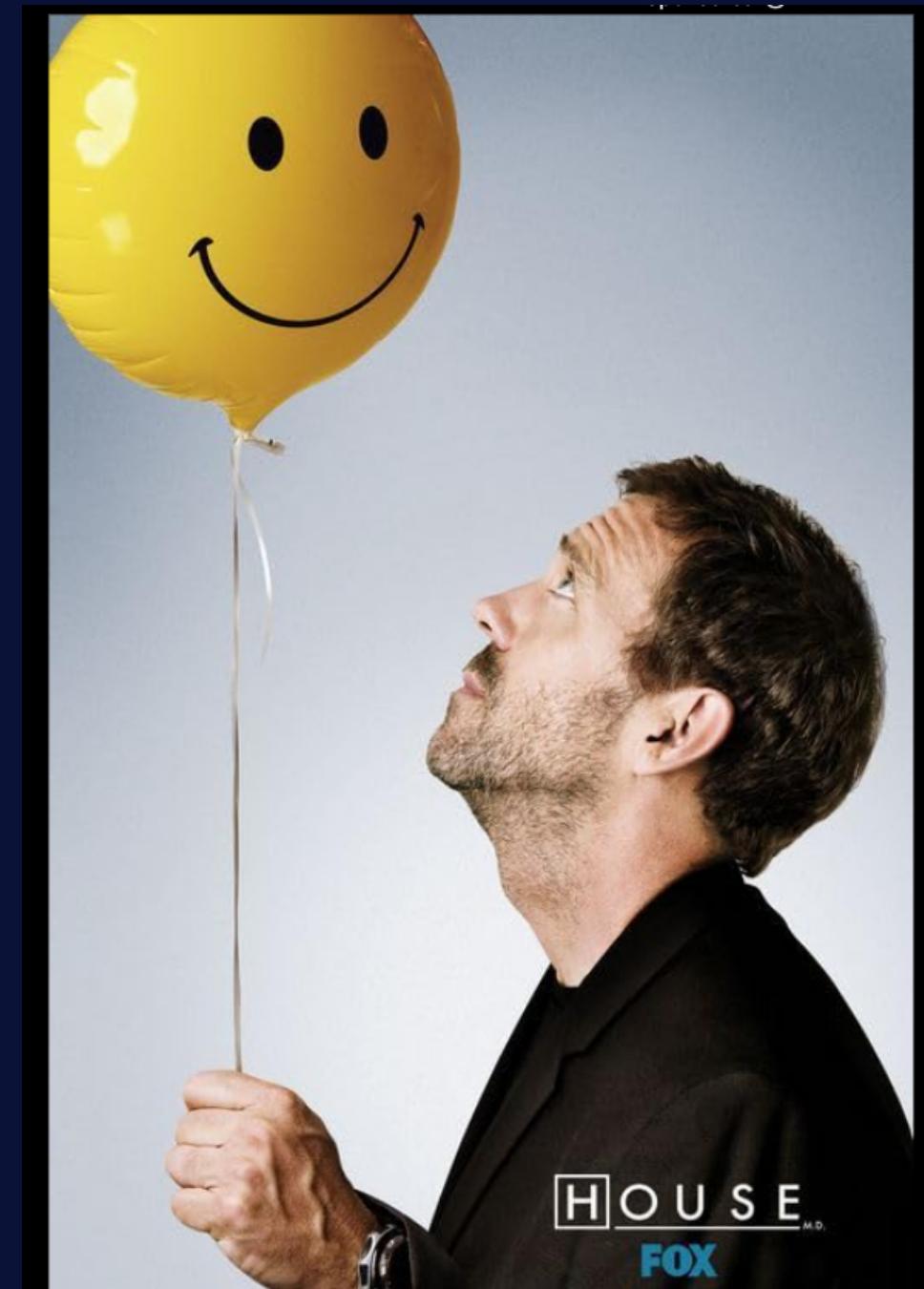
HOUSE, S1

“I need thirty-six
Vicodin and change
for a dollar.”

DR. HOUSE

DATA QUALITY AND AVAILABILITY:

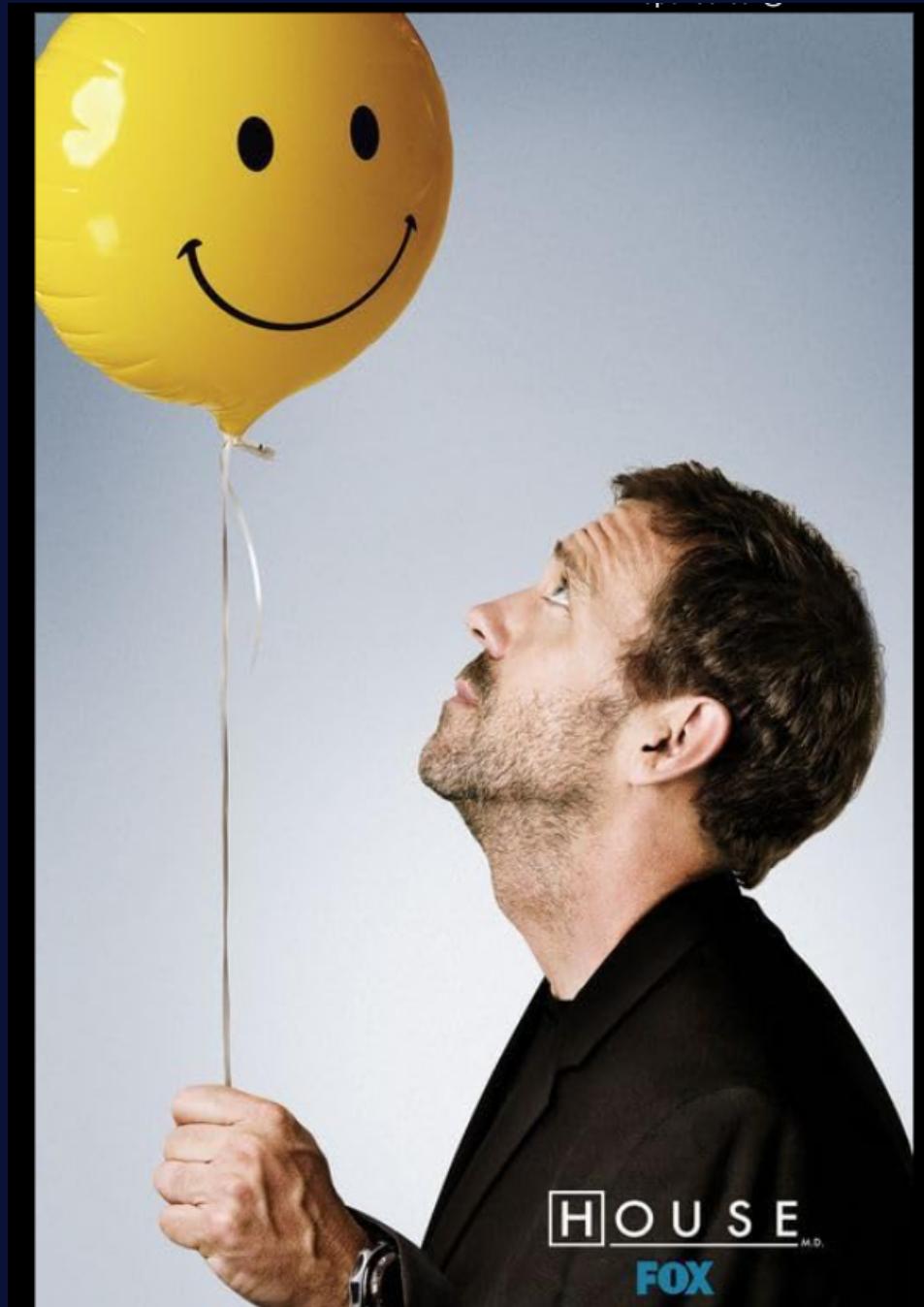
- Inaccuracies, incompleteness, and biases in data.
- Challenges in accessing comprehensive and relevant data due to privacy regulations and interoperability issues.



LIMITATIONS

COMPLEXITY OF DECISION MAKING:

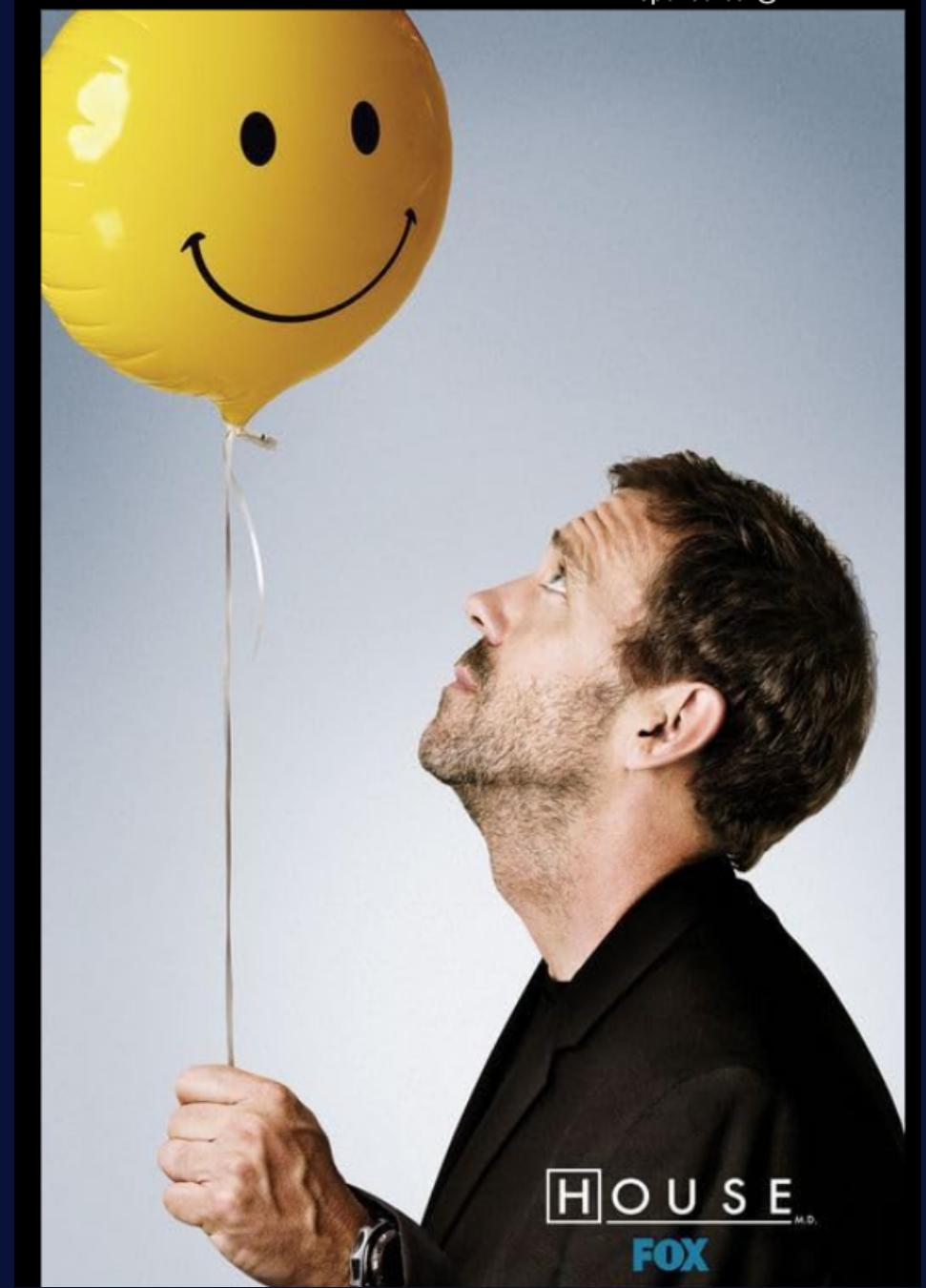
- Difficulty in incorporating multifaceted considerations like patient preferences, medical history, and socio-economic factors.
- Risk of oversimplified recommendations or overlooking critical nuances.



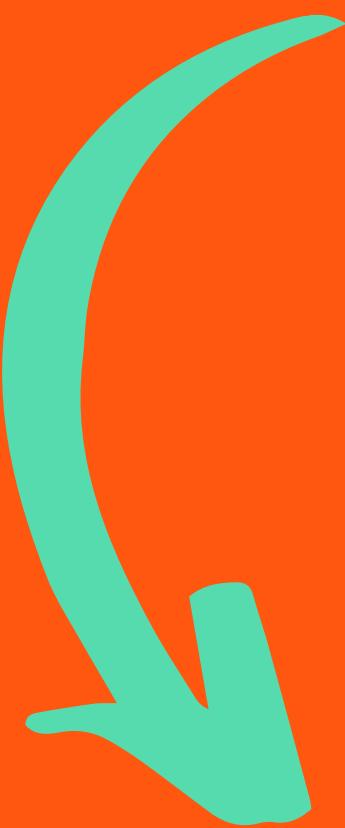
LIMITATIONS

ETHICAL & LEGAL CONCERNS:

- Potential algorithmic bias and perpetuation of healthcare disparities.
- Patient discomfort and distrust due to lack of transparency in decision-making.
- Legal and ethical issues regarding patient privacy, informed consent, and liability.



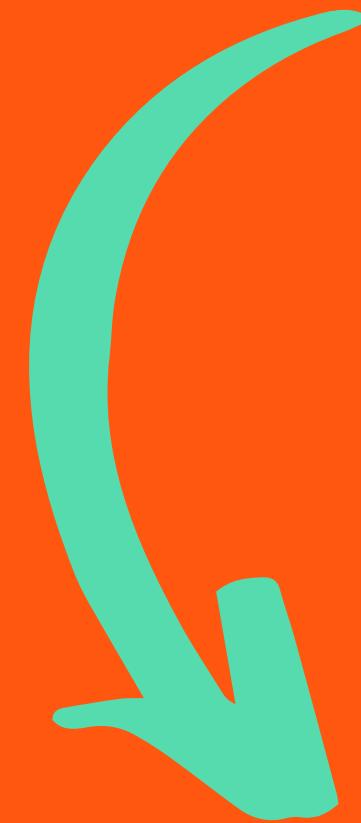
LIMITATIONS



IMPLICATIONS

OVERRELIANCE ON ALGORITHMS

- Risk of reduced critical thinking and clinical judgment among healthcare professionals.
- Potential for missed diagnoses or inappropriate treatments.



IMPLICATIONS

LACK OF HUMAN TOUCH AND EMPATHY:

- AI may lack empathy and the human connection essential in healthcare interactions.
- Patients may feel disconnected, especially in sensitive situations.

IMPLICATIONS



VULNERABILITY TO CYBERSECURITY THREATS:



- Increased risk of data breaches and hacking due to reliance on vast patient data.
- Importance of robust cybersecurity measures to safeguard patient privacy.

WORKS CITED

QUOTES:

[Screen Rant House Quotes](#)

[Fandom House Quotes](#)

DATA WEBSITES

[Kaggle Dataset: Disease Prediction Using Machine Learning](#)

[Kaggle Dataset: Disease Prediction through Symptoms](#)

[House Season 1: “Dr. House Introduces Himself](#)

PHOTOS & MEDIA

[House Main Page](#)

[House Photo 1 - Proposal](#)



DR. ERIC FOREMAN: "10-YEAR-OLDS DO NOT HAVE HEART ATTACKS. IT'S GOT TO BE A MISTAKE."

DR. GREGORY HOUSE: "RIGHT. THE SIMPLEST EXPLANATION IS SHE'S A 40-YEAR-OLD LYING ABOUT HER AGE. MAYBE AN ACTRESS TRYING TO HANG ON"

— DR. GREGORY HOUSE, HOUSE, SEASON 1: HEAVY



HEALTHhouse: a dISEASE Discovery Tool

