The dilemma making AI globally accessible & affordable

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A.I. Enhanced Healthcare

SAN FRANCISCO | ADELAIDE | LONDON

Healthcare struggles with accessibility and affordability

Women, minorities and people in remote areas or corners of the globe







Making AI available for billions globally

Accurate

Good consistent performance



Accessible

Scalable, unbiased, "for all"



Affordable

Low cost to implement & use



The dilemma: you can't have all three!

Accurate





Best Performance Accessible X Scalable, unbiased, "for all"



Built or re-calibrated locally by each clinic, or

For specific demographics or medical equipment





High cost and slow: many different AI needed for scale

Too costly for smaller clinics

Low Return on Investment (ROI)

Accessible and affordable means sacrificing some performance

Accurate Good consistent performance



Reduced Performance Accessible Scalable, unbiased, "for all"



Single out-of-the-box general AI for all clinics, demographics and clinical settings globally

Rapid scalability & availability

Affordable

Low cost to implement & use



Low cost: single AI for all clinics means economies of scale

High Return on Investment (ROI)

Need a new AI paradigm to maximize performance for scale

Accurate Good consistent performance

Reduced Performance Accessible

Scalable, unbiased, "for all"



Single out-of-the-box general AI for all clinics, demographics and clinical settings globally

Rapid scalability & availability

Affordable 💊

Low cost to implement & use



Low cost: single AI for all clinics means economies of scale

High Return on Investment (ROI)

1. Globally Diverse Data

Train AI on a global dataset that represents different demographics and clinical settings

Decentralized Federated AI learning enables AI training on global datasets without moving or seeing private data



2. Data Quality

Medical data inherently poor quality due to subjectivity and uncertainty

Only 1% error impacts AI accuracy and scalability

Automated data error detection with the ability to detect errors that even experts can't identify

3. Select Reliable & Robust Al

Selecting AI on accuracy alone during development can be misleading as to how well the AI generalizes and will scale in the real world

New metrics around AI accuracy and confidence creates reliable and robust AI for real world use



4. Knowledge & Masking

Can't just throw data at AI and expect a good result

Use knowledge of the problem domain to target the AI on relevant features

Mask out noise and details to eliminate identifying irrelevant patterns or bias across diverse groups





Accessible and affordable AI is the future of healthcare

Makes sense commercially and socially

Needs a new global first approach for creating and testing AI

Al healthcare for "niche" problems or demographics, like women's health, become feasible at scale





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