

Paper Title: Peeking Inside the Black-Box: A Survey on Explainable Artificial Intelligence (XAI).

Paper Link: <https://ieeexplore.ieee.org/document/8466590/>

1. Summary

1.1 Motivation/purpose/aims/hypothesis:

Adadi and Berrada's paper explores Explainable Artificial Intelligence (XAI) to demystify AI models. It aims to elucidate the importance of XAI in enhancing user trust and comprehension.

1.2 Contribution

The paper consolidates varied perspectives on XAI, offering a comprehensive overview of methodologies, challenges, and future directions.

1.3 Methodology

It conducts an extensive literature review, organizing findings across multiple XAI axes, focusing on human involvement, explanation types, contrasting views, and future research areas.

1.4 Conclusion

The paper identifies gaps in XAI, emphasizing the need for clear definitions, formalism, and deeper understanding of human aspects, outlining future research paths.

2. Limitations

2.1 First Limitation

Extensive coverage might overwhelm readers. A more concise presentation could enhance accessibility.

2.2 Second Limitation

Lacks practical case studies or implementations, which could increase its real-world relevance.

3. Synthesis

Insights from the paper suggest the need for user-centric and transparent AI systems. Bridging theory with real-world applications is key to integrating XAI methods for trustworthy AI decision-making in domains like healthcare and finance. Operationalizing these insights will shape robust and ethical AI systems.