Website address:
https://www.gesundheitsindustrie-bw.de/en/article/press-release/hector-foundation-prize-2025-annika-reinke-metrics-reloaded-improves-quality-ai-supported-image-analysis

Hector Foundation Prize 2025 for Annika Reinke: “Metrics Reloaded” improves the quality of AI-supported image analysis

Computer scientist Annika Reinke from the German Cancer Research Center (DKFZ) has been awarded the Hector Foundation Prize 2025, endowed with €10,000, for her outstanding work in the field of AI-supported medical image analysis. She received the award for the project Metrics Reloaded, which can significantly improve the quality and reliability of AI-supported image analysis.

Annika Reinke's team developed Metrics Reloaded and the associated online tool with the aim of helping users select the most suitable algorithm for their task. Metrics Reloaded assists users in reliably evaluating the performance of AI algorithms in medical image analysis in a task-specific manner. This is because the informative value of such evaluations depends largely on the choice of suitable validation metrics — i.e., the key figures used to evaluate the algorithms.

In collaboration with an international consortium, Reinke analyzed the strengths, weaknesses, and limitations of existing metrics. The results were incorporated into the structured online tool. The tool takes into account different application scenarios – from classification and object recognition to semantic segmentation – and can be used independently of the image source.

With her work, Reinke is making an important contribution to quality assurance in the application of artificial intelligence in medical diagnostics. The improved selection of metrics will specifically support the transfer of AI methods into clinical practice.

The award-winning work is based on a multi-stage, international expert survey and provides the first comprehensive, freely accessible information and decision-making support system. It is aimed at experts from research, industry, and clinical practice.

Annika Reinke conducts research in Lena Maier-Hein's department at the DKFZ, which aims to improve medical procedures through data-driven methods. The Hector Foundation's award recognizes in particular her contribution to the conceptual development and implementation of Metrics Reloaded.

The prize, donated by the Hector Foundation, is aimed at young researchers in the field of computer science. The award was presented at the annual ceremony of the Heidelberg Academy of Sciences.

Press release

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Source: German Cancer Research Center (DKFZ)

Further information

- German Cancer Research Center (DKFZ)