Department of Anesthesiology at Erlangen University Hospital
Prof. Dr. med. Dr. h. c. Jürgen Schüttler

Universitätsklinikum Erlangen

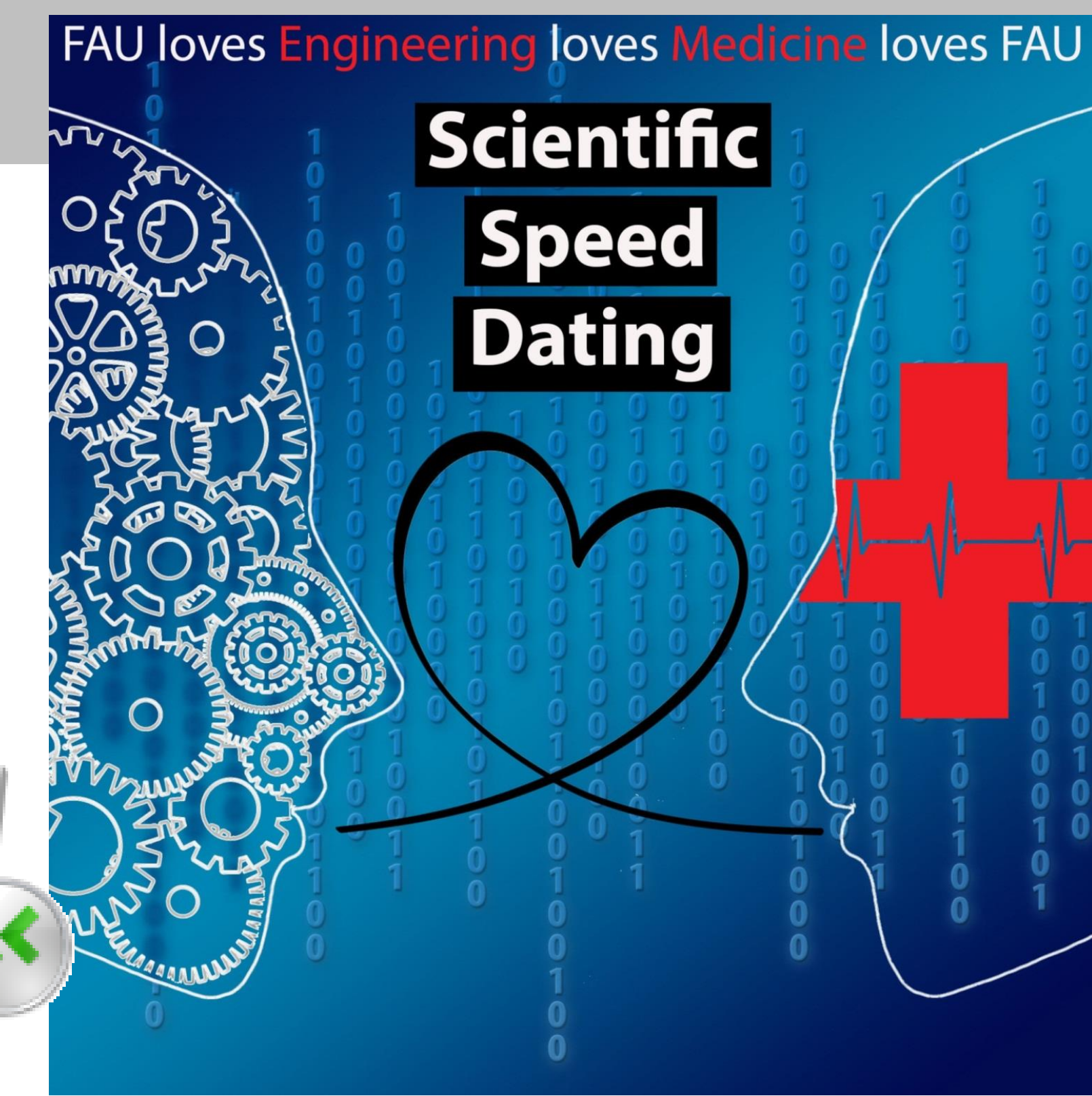# Application of big data analysis and data mining for medical risk evaluation

Dr. med. Stefan Wagner

FAU loves Engineering loves Medicine loves FAU

Scientific Speed Dating

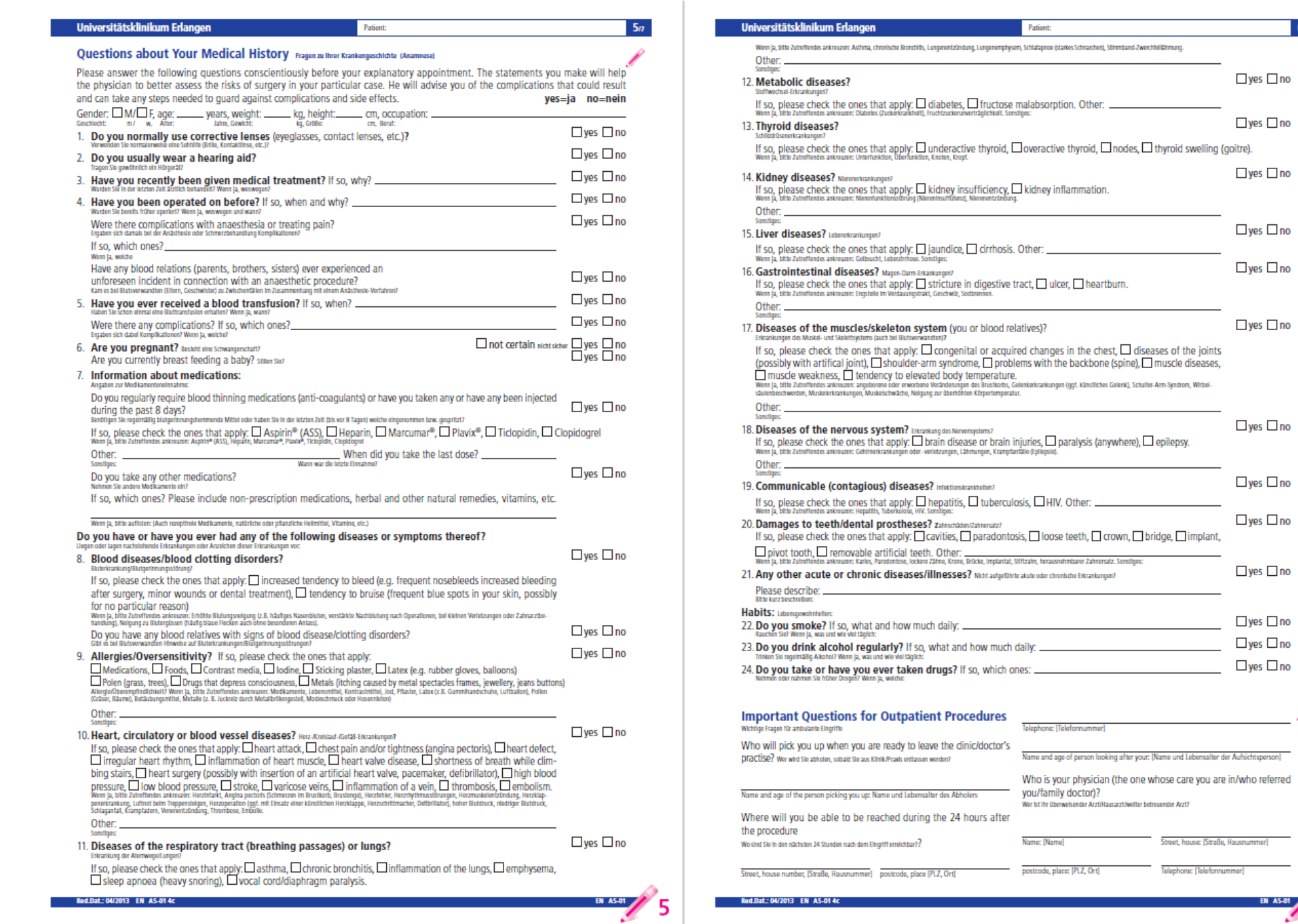## Midterm meeting - current project status

—STUD**O**N—   **WhatsApp**

Project management

✓ Deployment and administration of **internal StudOn- and WhatsApp-groups**
✓ Planning, installation, setup and administration of **virtualized shared development environment** based on Windows Server 2012 R2 and **Remote Desktop Services**
✓ **Training** of new **team members**
✓ **Migration** from PHP 5 to **PHP 7** → **Reduction** of **execution time** up to **30 percent**
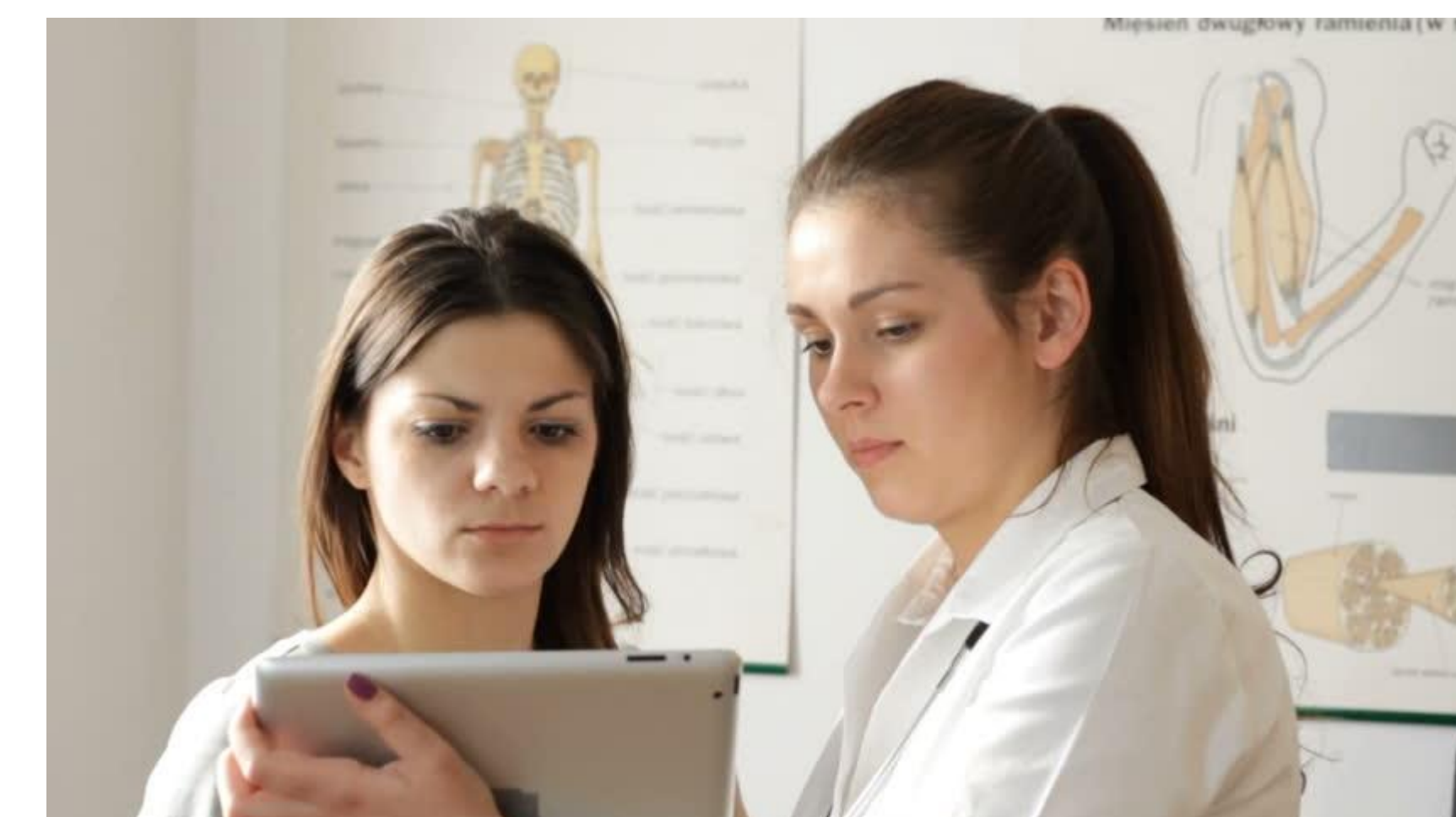✓ **Upgrade** of **Apache** and **MySQL**

Project goals

• Expand **medical data analysis** to optimize questionnaire prefilling
  (**big data analysis, data mining**)
• **Storing of** updated **datasets in database** after corrections and modifications by patient and doctor
• Basic **implementation of first intelligent warnings/recommendations**,
  e.g. PONV risk and development of chronic pain
• **Optimization of performance** of existing **prototype application** and **"bug fixing"**
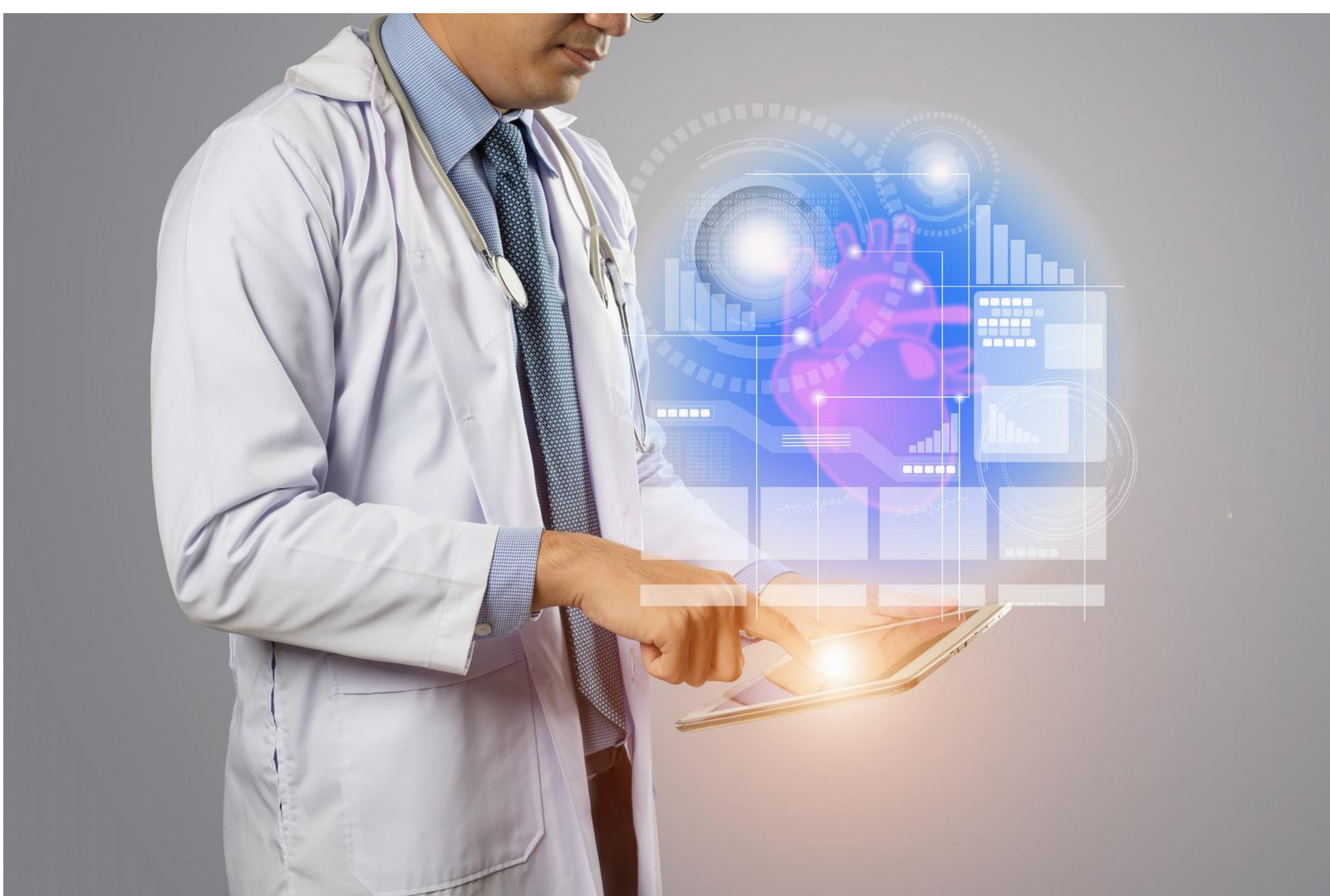• **Improvement** of **design and user interface**

Acknowledgements

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  Prof. Dr. Andreas Maier (Pattern Recognition Lab)
  Sven Grünke, Dipl.-Inf. Martin Gropp
  PD Dr. Peter Wilke
  Dipl.-Inf. Martin Gropp

Quelle: https://cdn.shutterstock.com/shutterstock/videos/3880208/thumb/1.jpg (30.05.2017)

Windows Server 2012

ORACLE®

Active Directory

MySQL™

PHP

Quelle: https://c1.staticflickr.com/5/4162/33697494003_974d3b5e49_h.jpg (30.05.2017)

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