

mHealth – Now?

-short introduction to the theme

Prof. Jarmo Reponen, M.D., Ph.D.

- Professor of Healthcare Information Systems
- Director of FinnTelemedicum, University of Oulu

Finnish Health ICT conference, Jyväskylä 20.5.2014

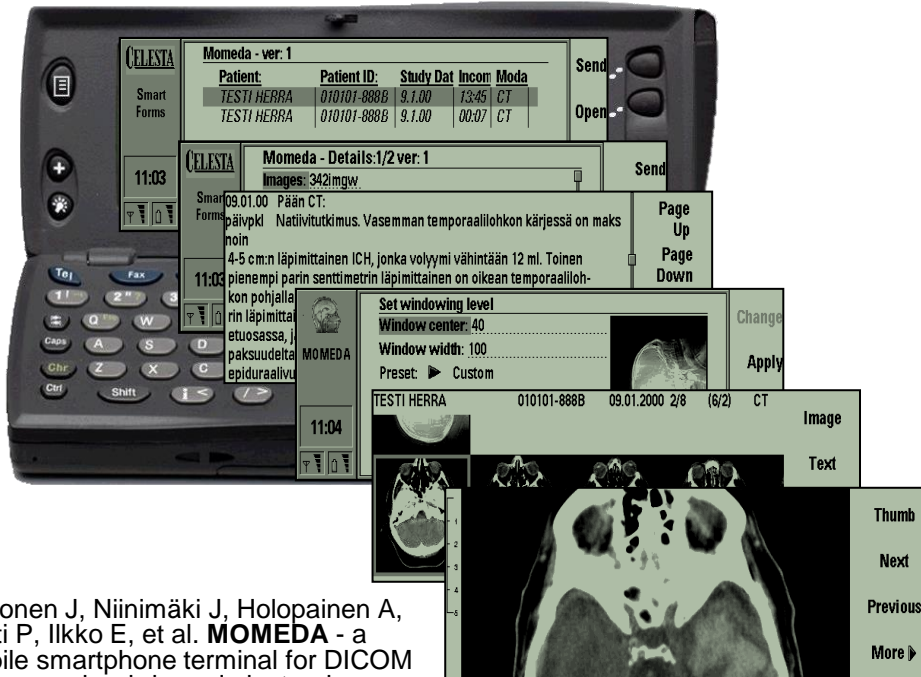


Continuation of terms towards mHealth

- Information and Communication Technology in Health care
- Electronic Health Records, EHR, EPR
- Telemedicine
- Telecare
- On-line health
- Personal Health Records, PHR
- Health Information Exchange, HIE
- **eHealth**
- **mHealth**



First smartphone mHealth terminal in clinical use already 15 yrs ago!



Reponen J, Niinimäki J, Holopainen A, Jartti P, Ilkko E, et al. **MOMEDA** - a mobile smartphone terminal for DICOM images and web-based electronic patient data. Proceedings of EuroPACS 2000, Graz-Austria, 2000.

Reponen J, Ilkko E, Jyrkinen L, Tervonen O, Niinimäki J, Karhula V, Koivula A. Initial experience with a wireless personal digital assistant as a teleradiology terminal for reporting emergency computerized tomography scans. Journal of Telemedicine & Telecare. 6(1):45-9, 2000.



- Two-way connectivity (read-write) to hospital information systems
- Mobile Apps for PACS, EHR, HIS, Messaging
- Secure connections and authentication
- User interface designed for Medical Professionals
- Clinical use: Neurosurgeons
- **BUT: lacking ecosystem**



Tablets as EHR terminals 10 yrs ago



- Full portal type electronic medical record available
- Regular web interface adapted to the device, no special apps on device.
- Two-way connectivity (read-write) to hospital information systems
- EHR, PACS, LAB systems
- WLAN at the hospital environment
- Standards: HTML, DICOM
- Usage at bedside, clinical wards.

- **BUT:**
- **Battery life too short**
- **Heavy**
- **No touch interface, slow input**

•Pagani L, Jyrkinen L, Niinimäki J, Reponen J, Karttunen A, Ilkkö E, Jartti P. A portable diagnostic workstation based on a Webpad: implementation and evaluation. *Journal of Telemedicine & Telecare*. 9(4):225-9, 2003.

•Pagani L, Jyrkinen L, Niinimäki J, Reponen J. Wireless medical record access in the patient ward. *Proceedings of the 20th international EuroPACS meeting*, pages 117-120. Oulu, Finland, 2002.



Where do we stand now?

- Do we have the technology ?
- Do we have the right applications?
- Do we have enough knowledge?
- Do we have the right attitude?
- Do we have the real need for mHealth?
- Are we ready for a process change that a successful implementation of mHealth requires?



Our expert speaker today: Prof. Dr. Wolfgang Riedel



- Head Scientist and Consultant in the IfK, Institute for Hospital Management, Braunschweig, Germany.
- He studied Computer Scientist, afterwards he has many years experience in Hospital Management (German Hospitals)
- Since 1986 Professor for Hospital Management, especially IT and Communications.
- <http://www.ifk-braunschweig.de/>