
The digital transformation of Health and social care

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Agenda



- ◆ The 21st century
- ◆ The Future
- ◆ Research (examples)

A hand holding a computer mouse, with a circuit board visible in the background. The text is overlaid on this image.

The 21st century

Digital Society of Health, Certification, Gender Issues

“Working inward”

Improving internal
processes and
organizational and
Information structure
(Maturity)

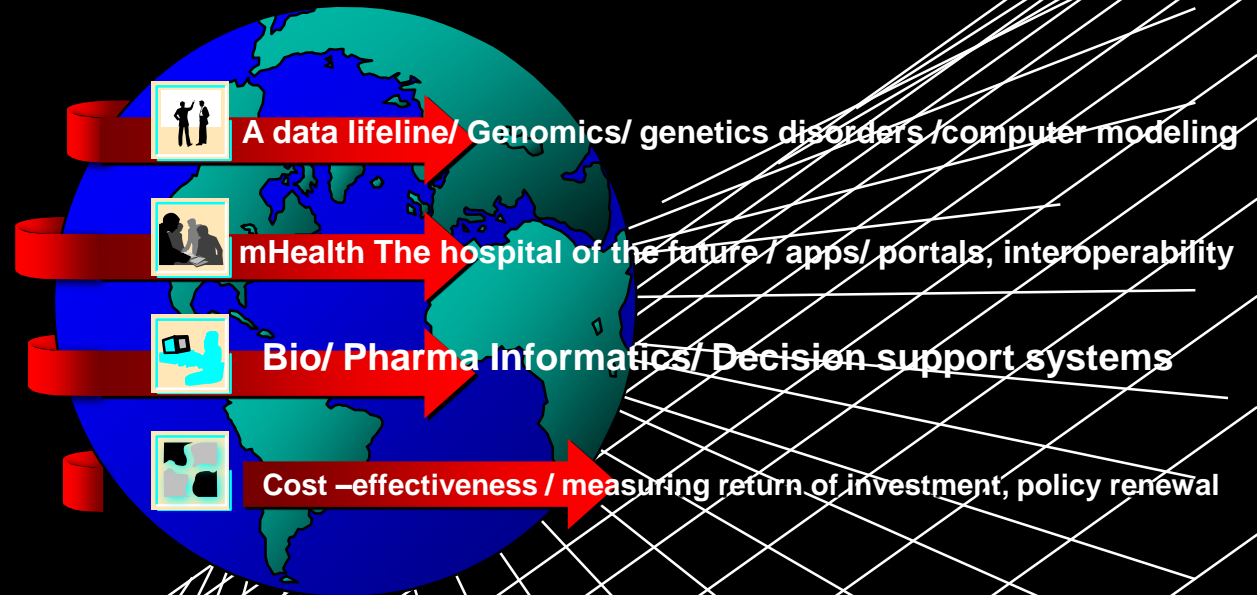
B2E “Organizational
intelligence”

“Working outward”

Improving systems and
services, and
relationships with
customers/citizens
(Data quality)

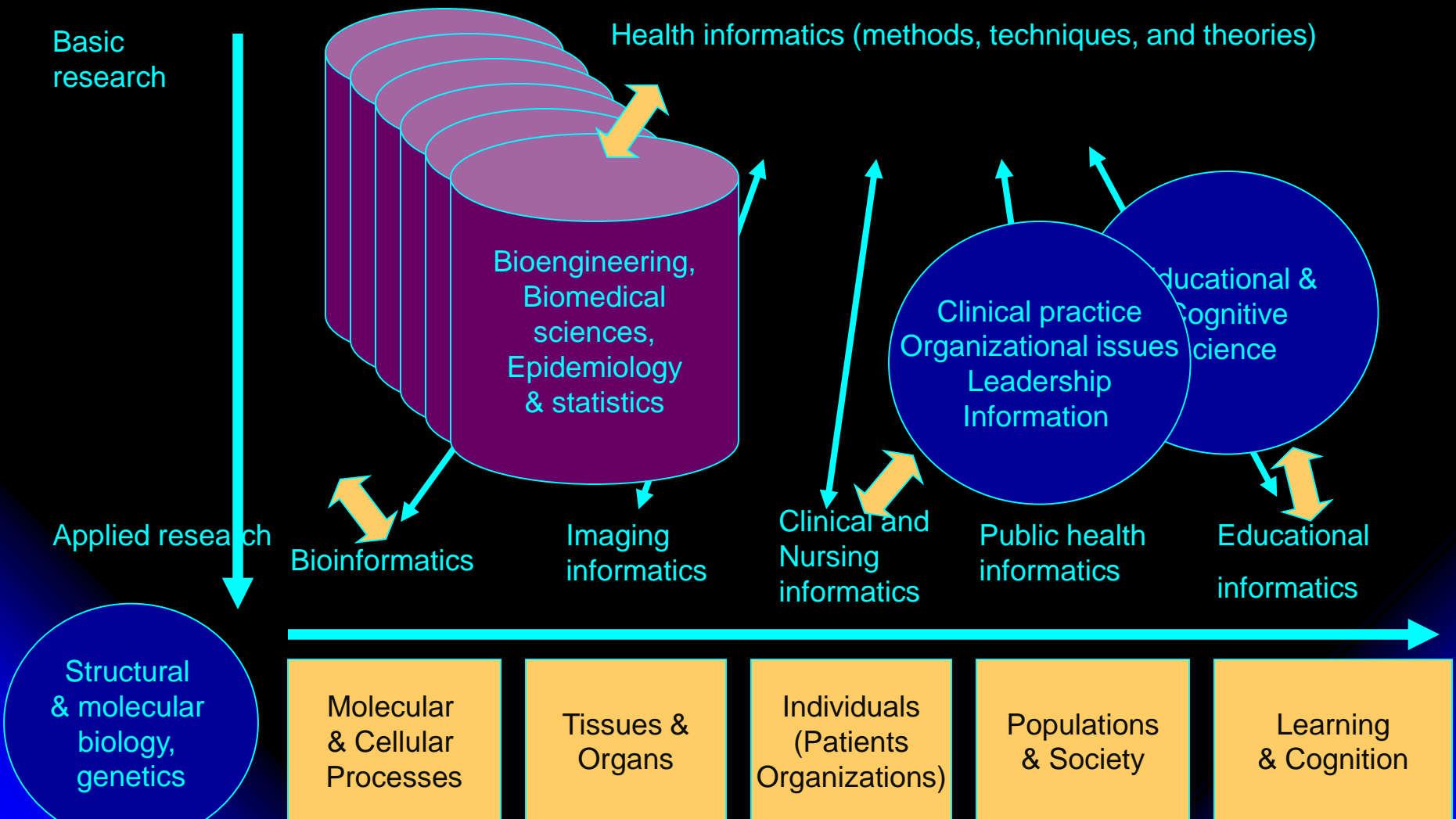
B2C “Customer

Actual issues in Health Informatics working groups, conferences ...



Subfields of Health informatics

(modified from Shortliffe, 2007)



From research to development

◆ **Apply machine learning to improve clinical recommendations**

- ❖ Natural language processing (clinical notes)
- ❖ Sharing gene-disease records

◆ **Artificial intelligence in Health and social care**

- ❖ Big -data
- ❖ Mobile apps , Code of conduct of M-health apps

◆ **Precision medicine**

- ❖ Universal interoperability, engaged patient, remote patient monitoring (back to telemedicine)
 - ✓ NEW : : Policy renewal and cost effectiveness

Challenges

◆ Organizational interoperability

- ❖ Organizational change, collaboration between organizations, common goals , Innovating

◆ Technical interoperability

- ❖ HIS data exchange, redundancy, high usability (connect to everything)?

◆ Legal interoperability

- ❖ Legislation, Integrity (ownership of platforms; liberate the data and ensuring quality)?,

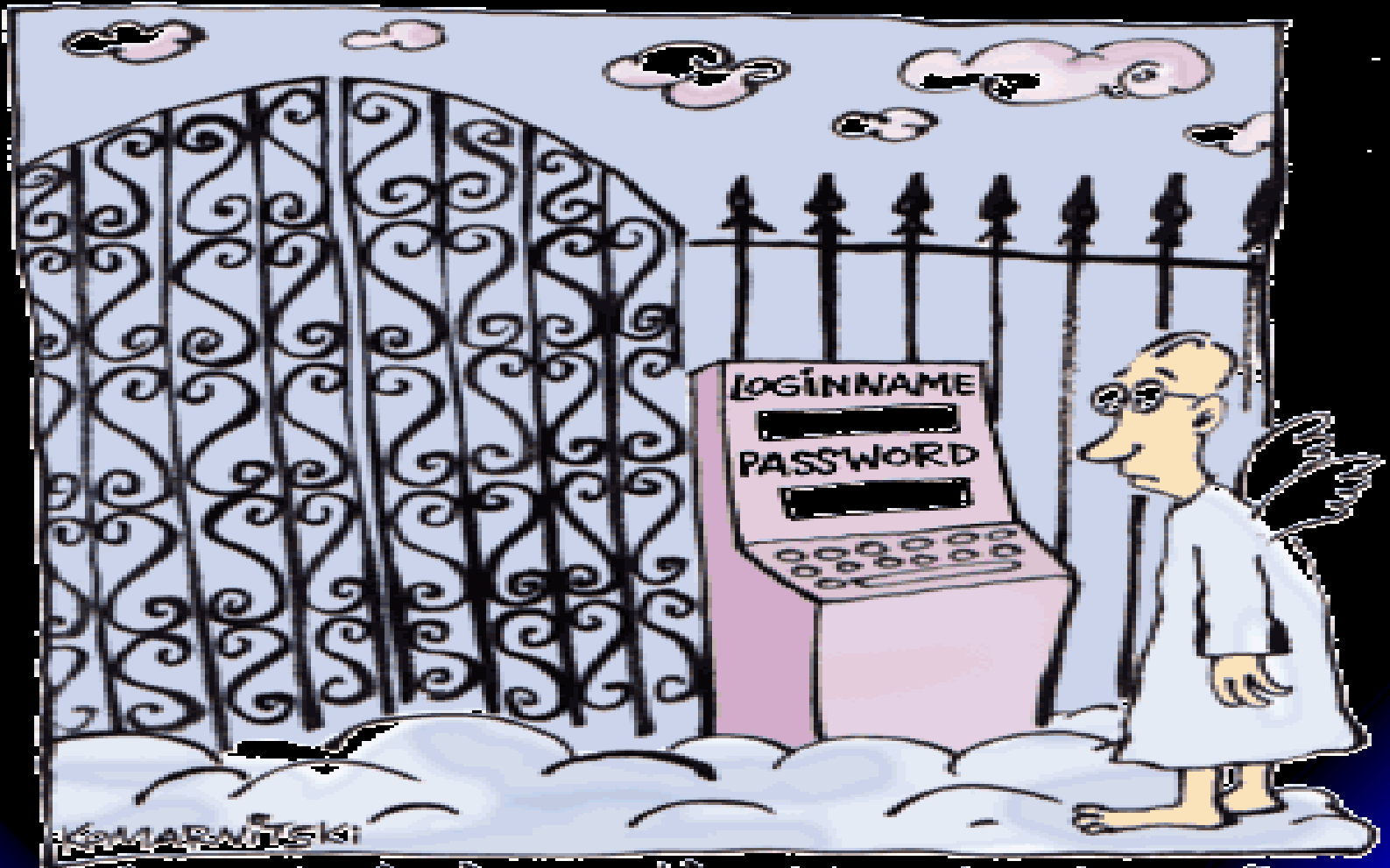
◆ The Patient at the Centre. “My data my decision”, additional resources

- ❖ Increased finances, digital literacy, health informatics education (practitioners and patients)
- ❖ Patient expectations , What they demand?, patient perspective? Policy renewal, innovators.....





"No, you weren't downloaded.
You were born."

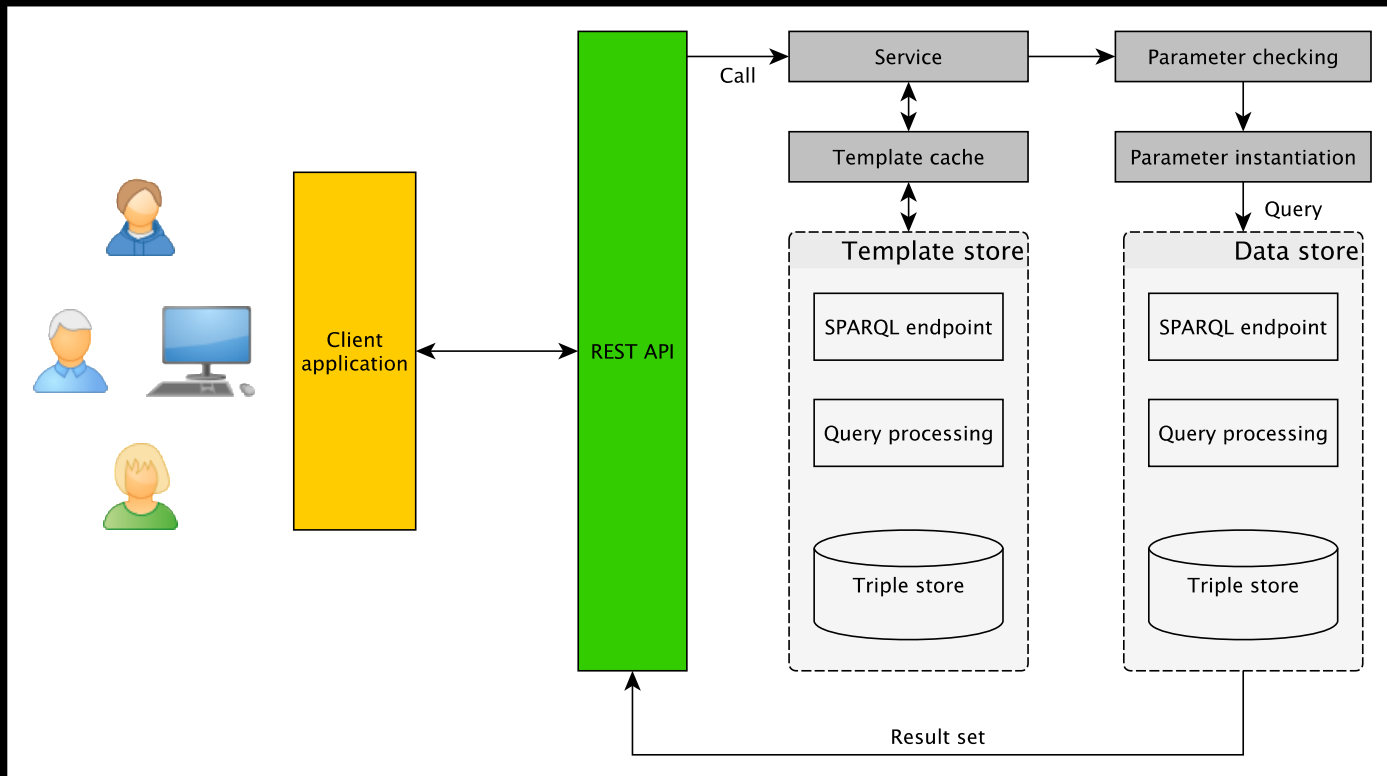


KNOCKIN' ON HEAVEN'S DOOR

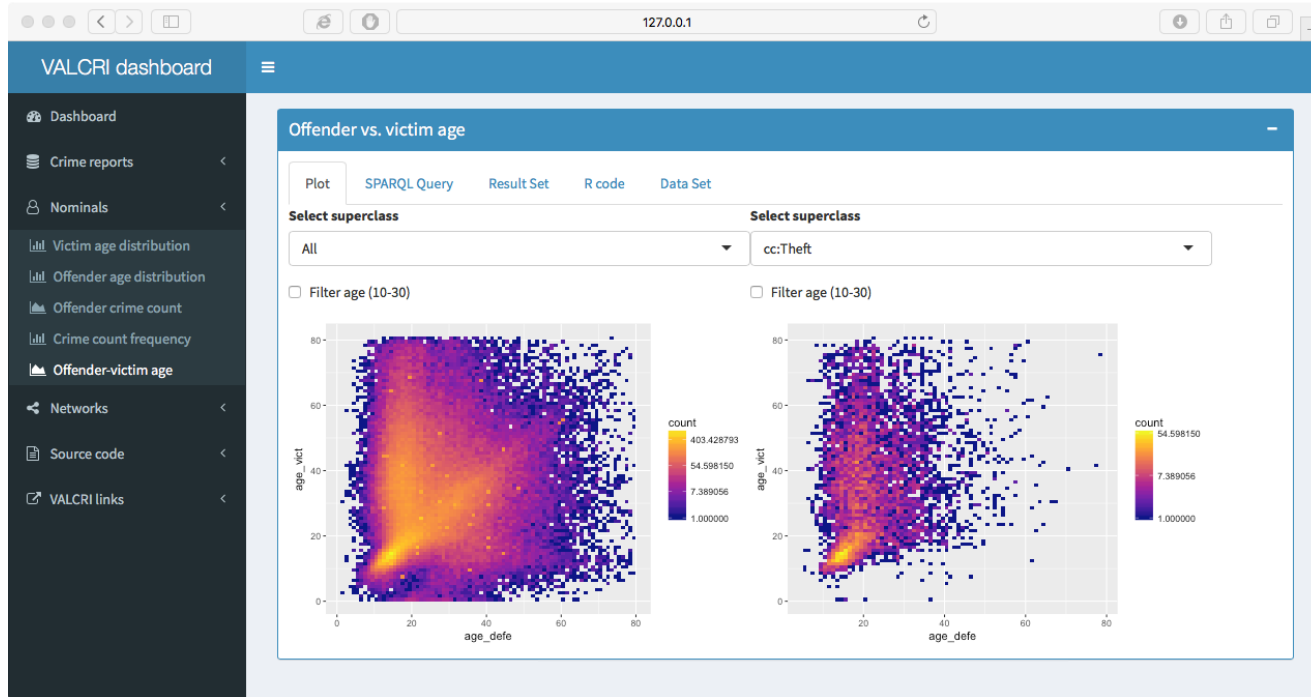
The Future

- ◆ ...or examples of things that we do.
- ◆ Ontologies and integration of data sources
 - ❖ Static data
 - ❖ Streaming data
- ◆ Data Analytics
 - ❖ AI, ML, Clustering, stat, DSS
- ◆ Data visualisation
 - ❖ Displays
 - ❖ Services

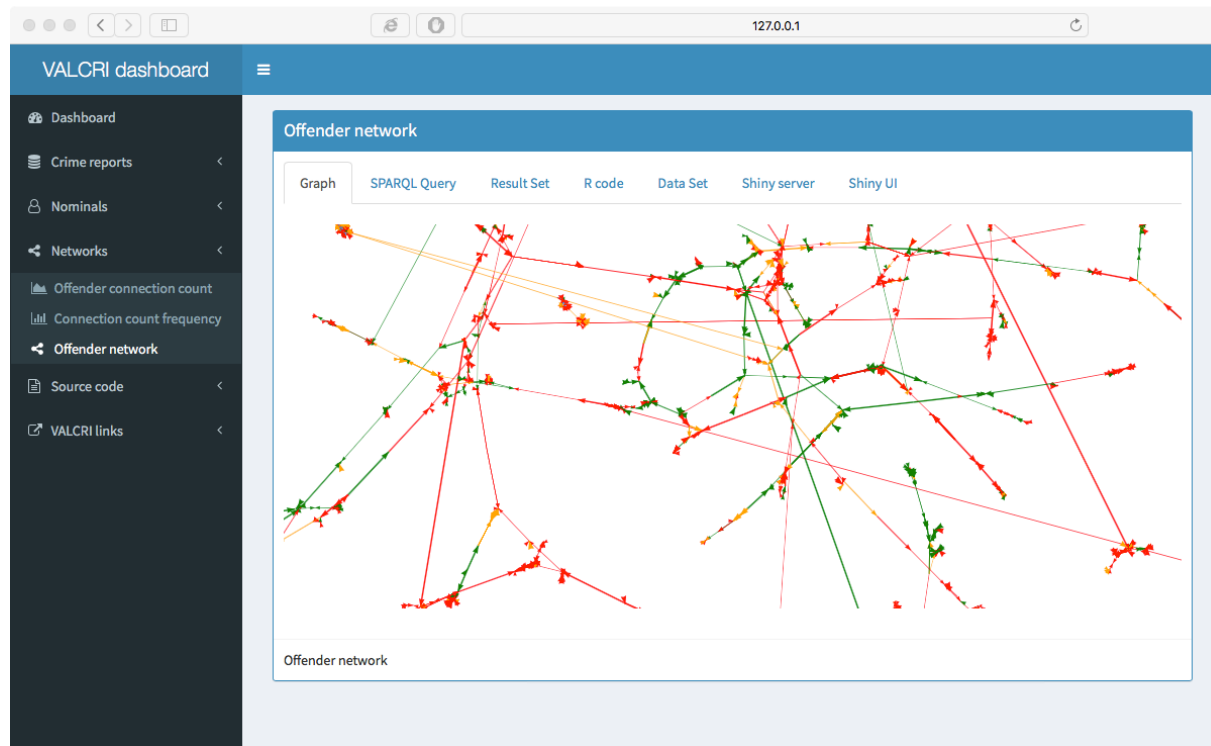
Ontologies and data stores



Analysis and visualisation

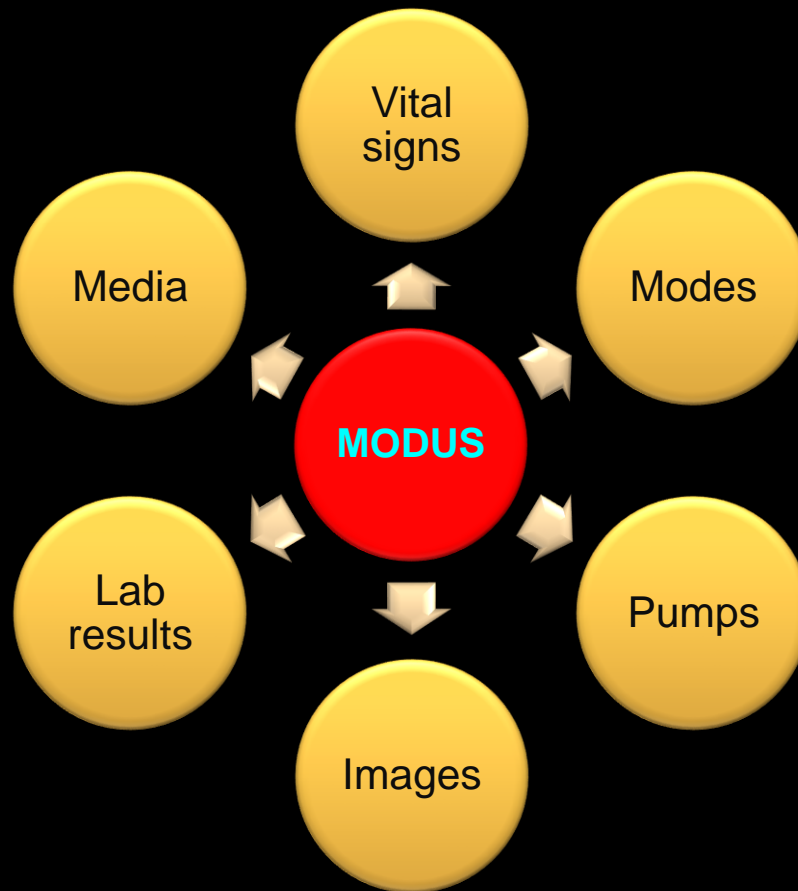


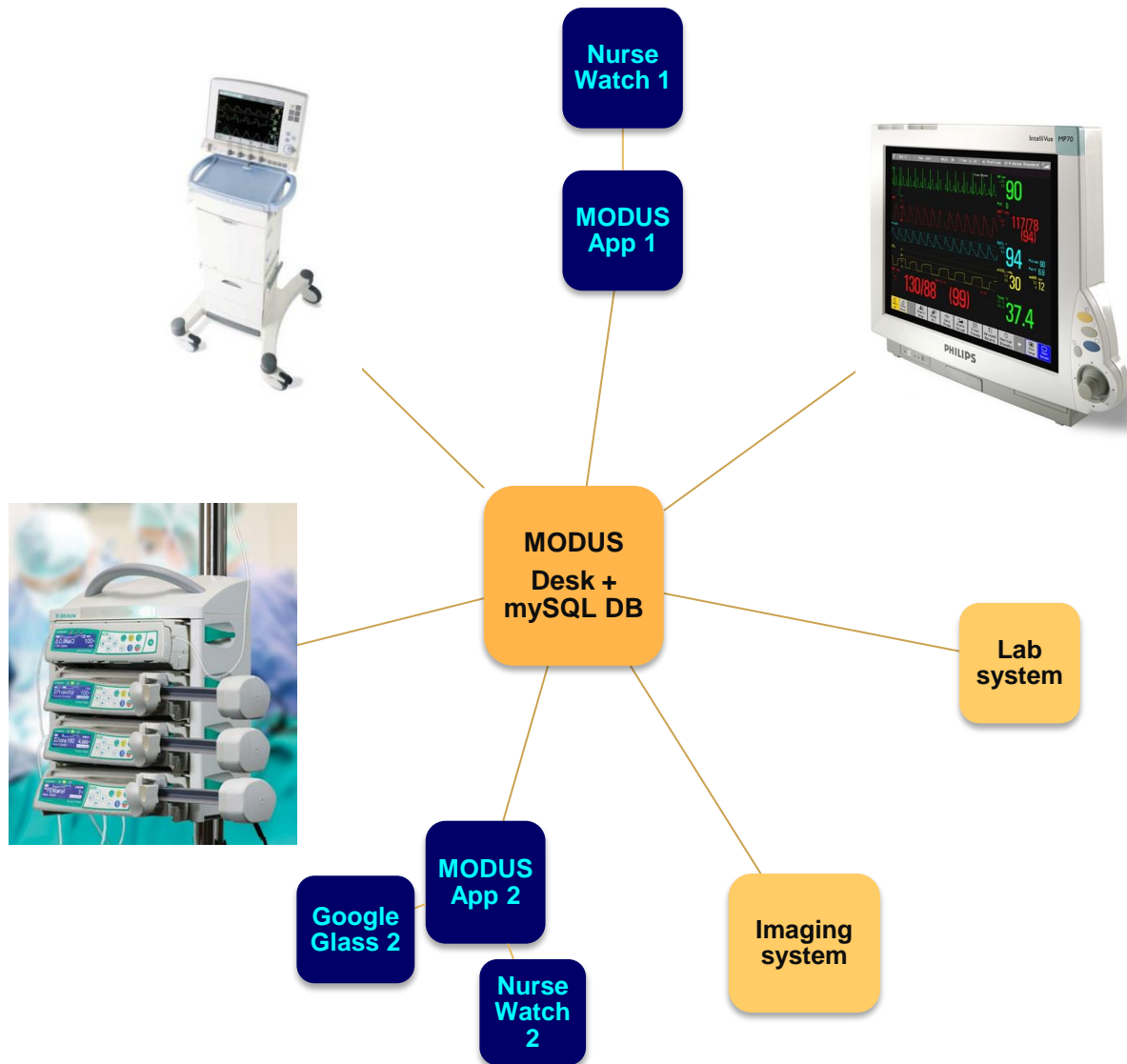
Social Network Analysis



The MODUS PDMS

- Visualisation of vital signs
- Integration of sensor data in one system







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Alexander Lindberg

Test department 3

Test module 3

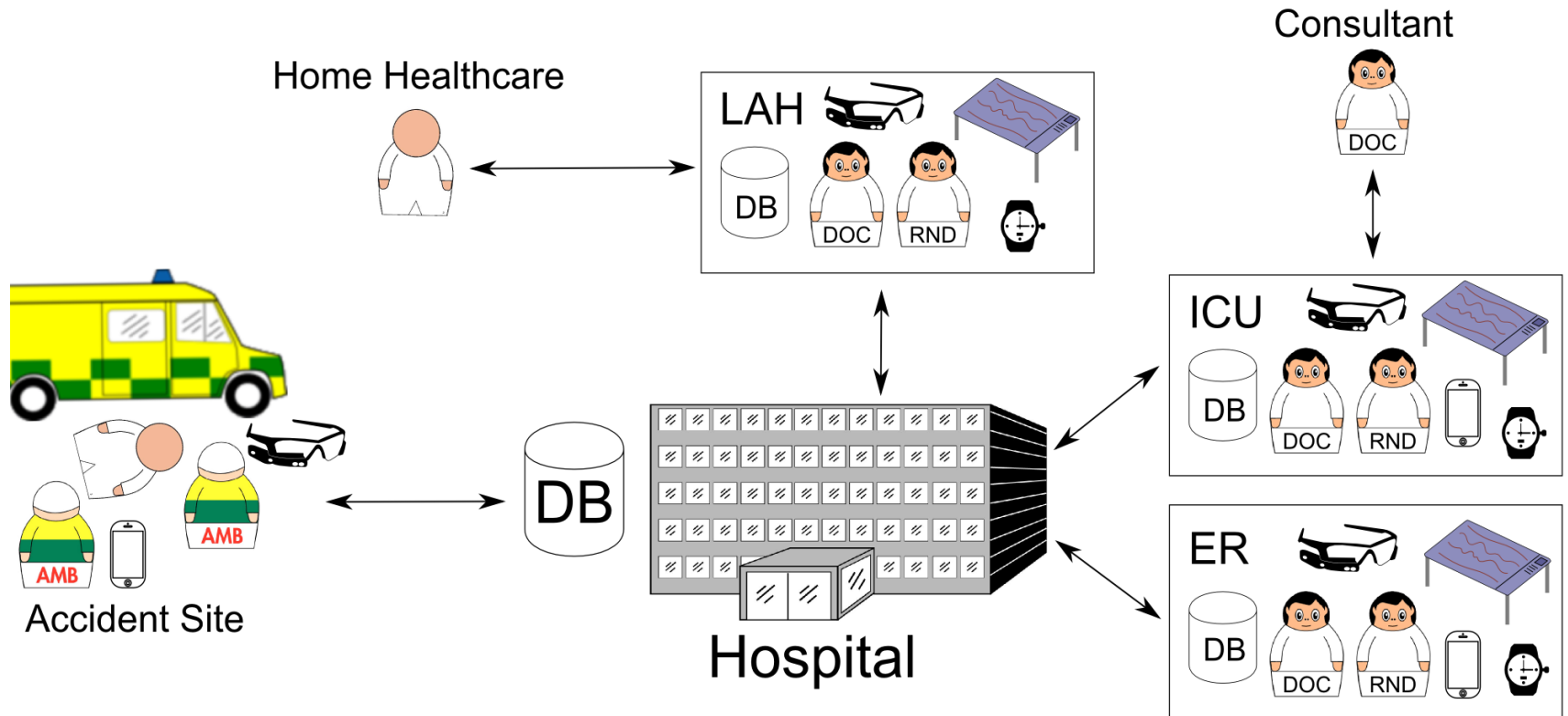
MEWS: 2

CNS: Reagerar på tilltal

VÄRDEN ORDINATION PROVER GRÄNSER NUTRITION



Possible applications



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- ◆ **Nytt projekt finansierat av VINNOVA: “Utvärdering av system för tidig detektion av sepsis med skalbar AI-tjänsteplattform” (Magnus Bång)**

THANK YOU FOR YOUR ATTENTION