

The Travel to the Hidden Lives of Electronic Medical Records (EMRs)

Prepared for the 4S Conference, Pasadena (Oct. 20-22, 2005)

October 20-22, 2005

ACTION for Health

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Prepared by:

Nina Boulus

PhD Student

Simon Fraser University

Document Contact:

Ellen Balka

School of Communication

Simon Fraser University

8888 University Drive

Burnaby, BC, Canada V5A 1S6

tel: +1.604.725.2756

email: ellenb@sfu.ca

website: www.sfu.ca/act4hlth/

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The Travel to the Hidden lives of Electronic Medical Records (EMRs)

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Nina Boulus, PhD Candidate (Simon Fraser University)

Research Assistant (ACTION for Health)

1. Introduction

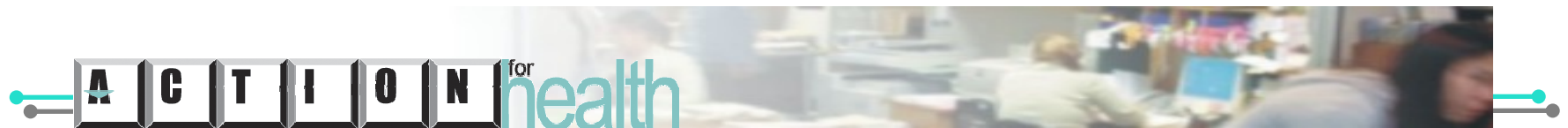
- ❑ Magic formulas: Information Communication Technologies (ICTs)= better healthcare ('more IT for better healthcare').
- ❑ Various initiatives are being taken in the name of quality improvement, efficiency and cost reduction, and prominent among these, is the implementation of Electronic Medical Records (EMRs).
- ❑ Following a socio-technical approach to the hidden lives of EMRs reveals multiple contingencies and ambiguities.

Overview of the Presentation

1. [Introduction]
2. Setting the Stage
3. Theoretical Framework
4. Unpacking the Black-box of the EMR
5. From Abstract Visions to Concrete Reality
6. Concluding Remarks

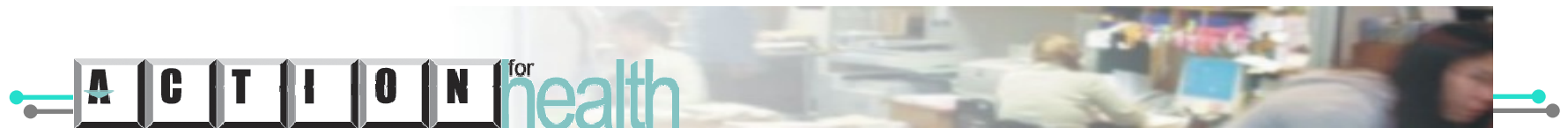
2. Setting the Stage

- ❑ The research is part of a large ongoing project called ACTION for Health.
- ❑ Primary Health Care sector → 6 clinics in BC.
 - ❑ Focus on one non-profit community health centre.
- ❑ Approach: Participatory Action Research



2. 1- Fieldwork

- ❑ Initiated in October 2004 → still in progress.
- ❑ Techniques for data collection:
 - ❑ **Open-ended, semi-structured interviews with decision makers, administrative and clinical staff, and patients.**
 - ❑ **Participant observations of doctors in the charting room.**
 - ❑ **Formal and non-formal meetings (i.e. medical team meetings, weekly EMR meetings).**
 - ❑ **EMR-training sessions.**
 - ❑ **Practice Enhancement Collaboratives organized by the Vancouver Coastal Health Authority (VCHA) Primary Health Care Transition Fund (PHCTF).**



3. Theoretical Framework

Computer Supported Cooperative Work (CSCW)

Science and Technology Studies (STS)

Both interdisciplinary fields:

- ❑ Bridge between the various disciplines (Berg, 1998).
- ❑ Understanding technology in the *context of use*.
- ❑ Focus on relation between social & technical phenomena.

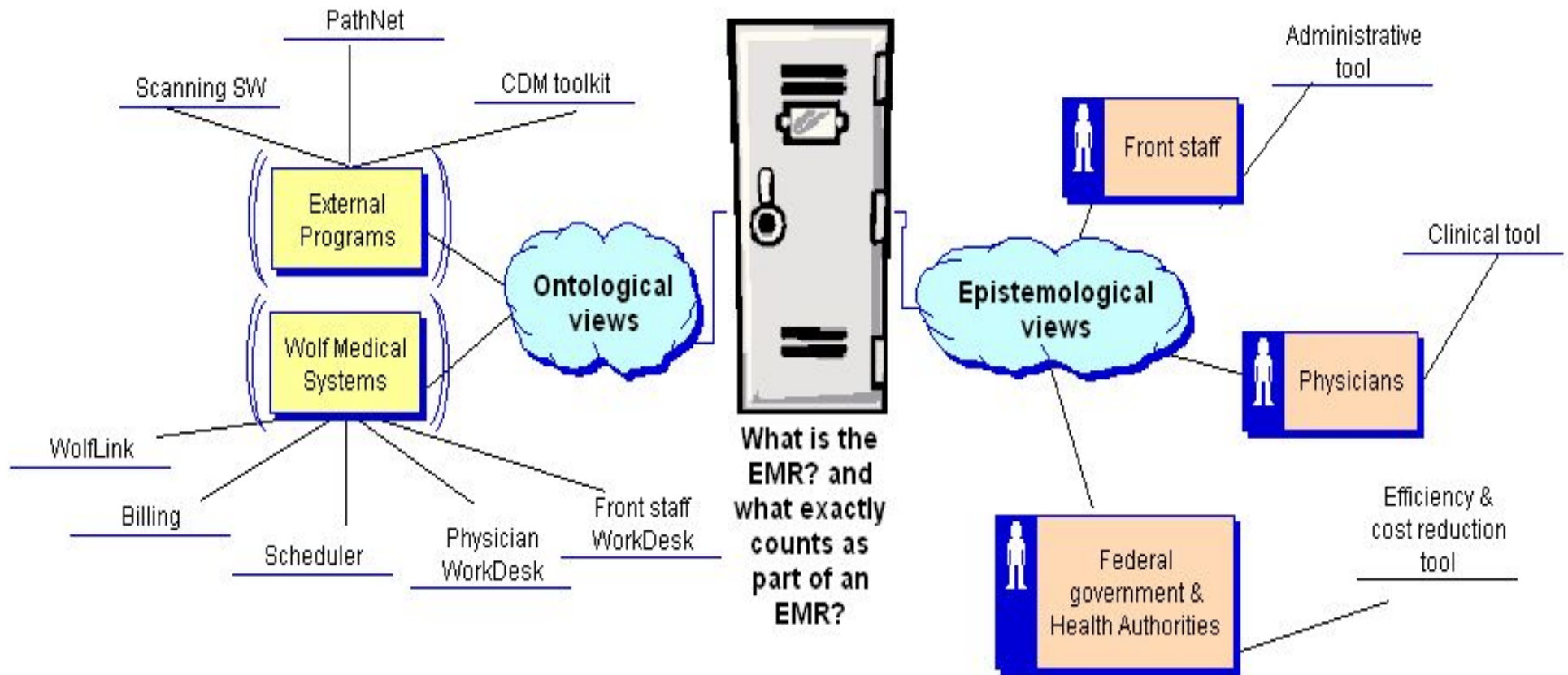
4. Unpacking the Black-box of the EMR

4.1- Ontological and epistemological views of EMRs

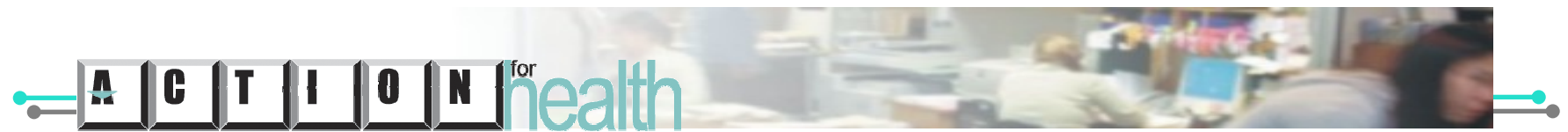
4.2- The birth of the EMR

4.3- The EMR gaining its technical existence

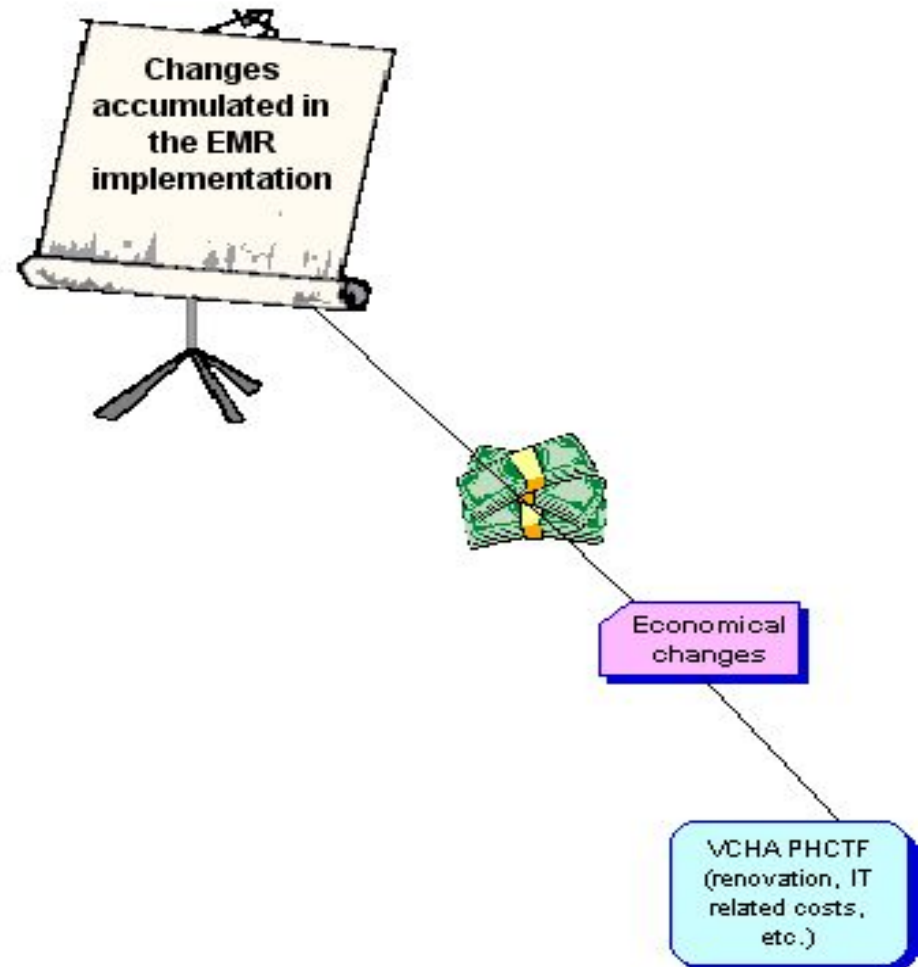
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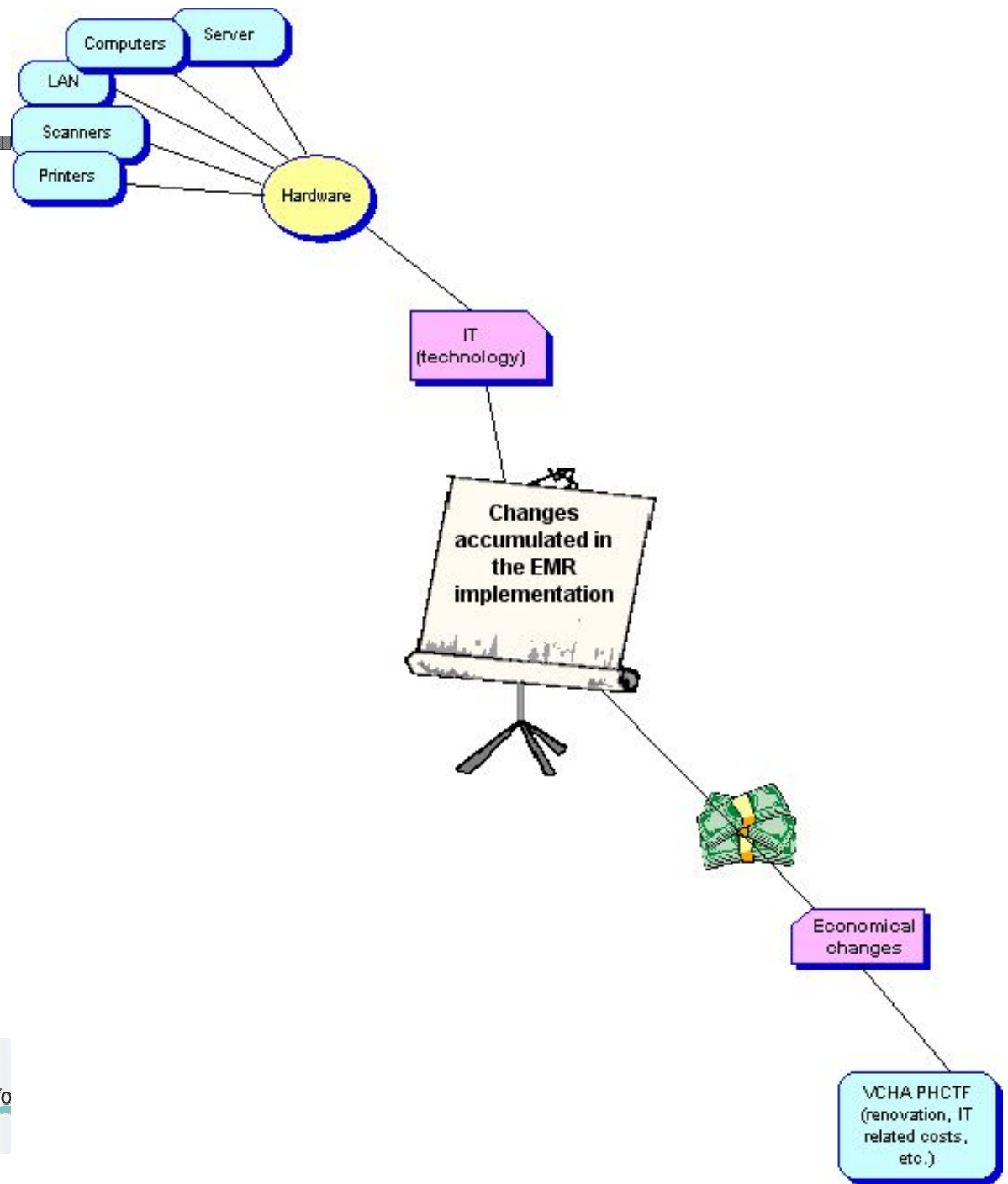


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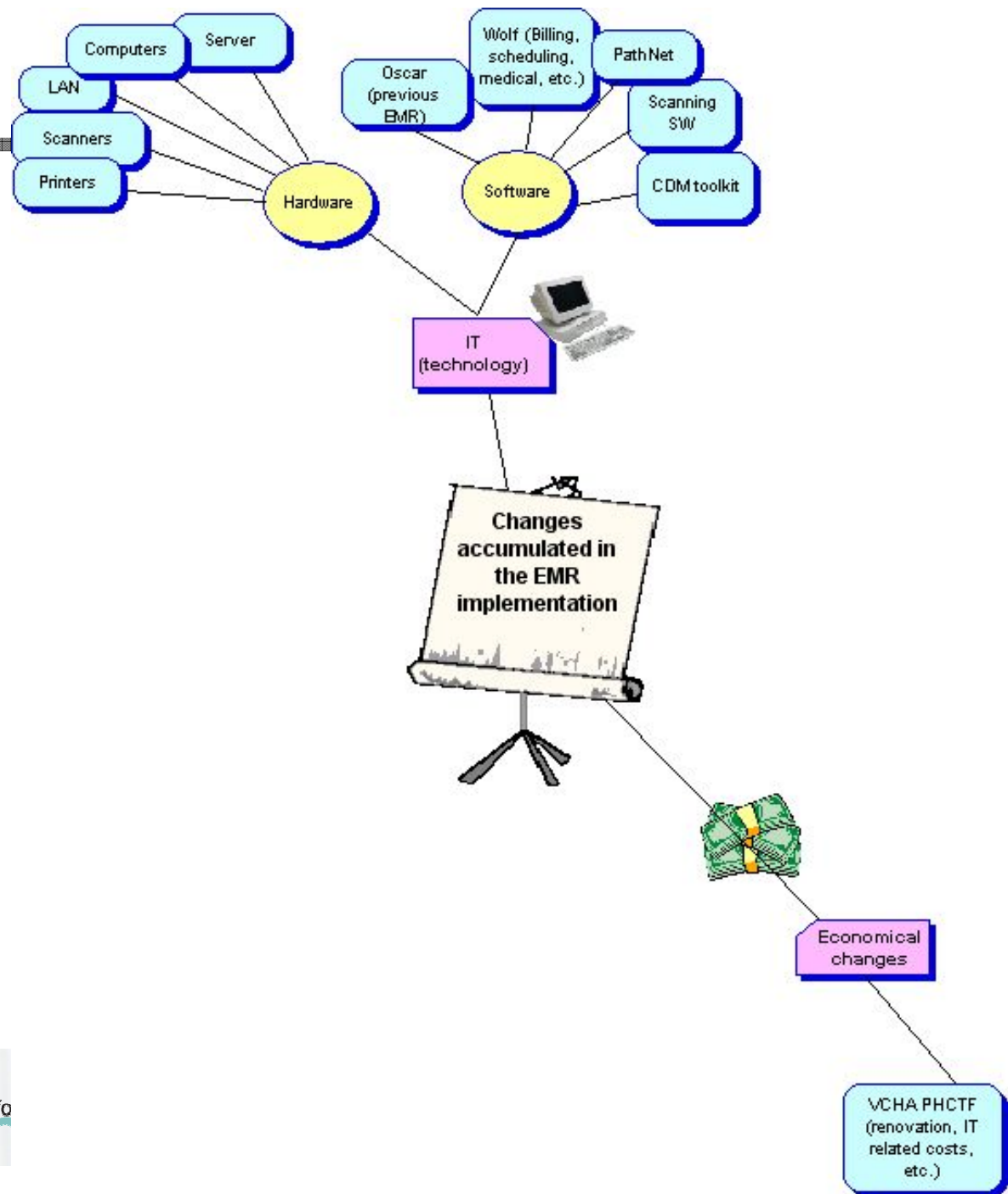
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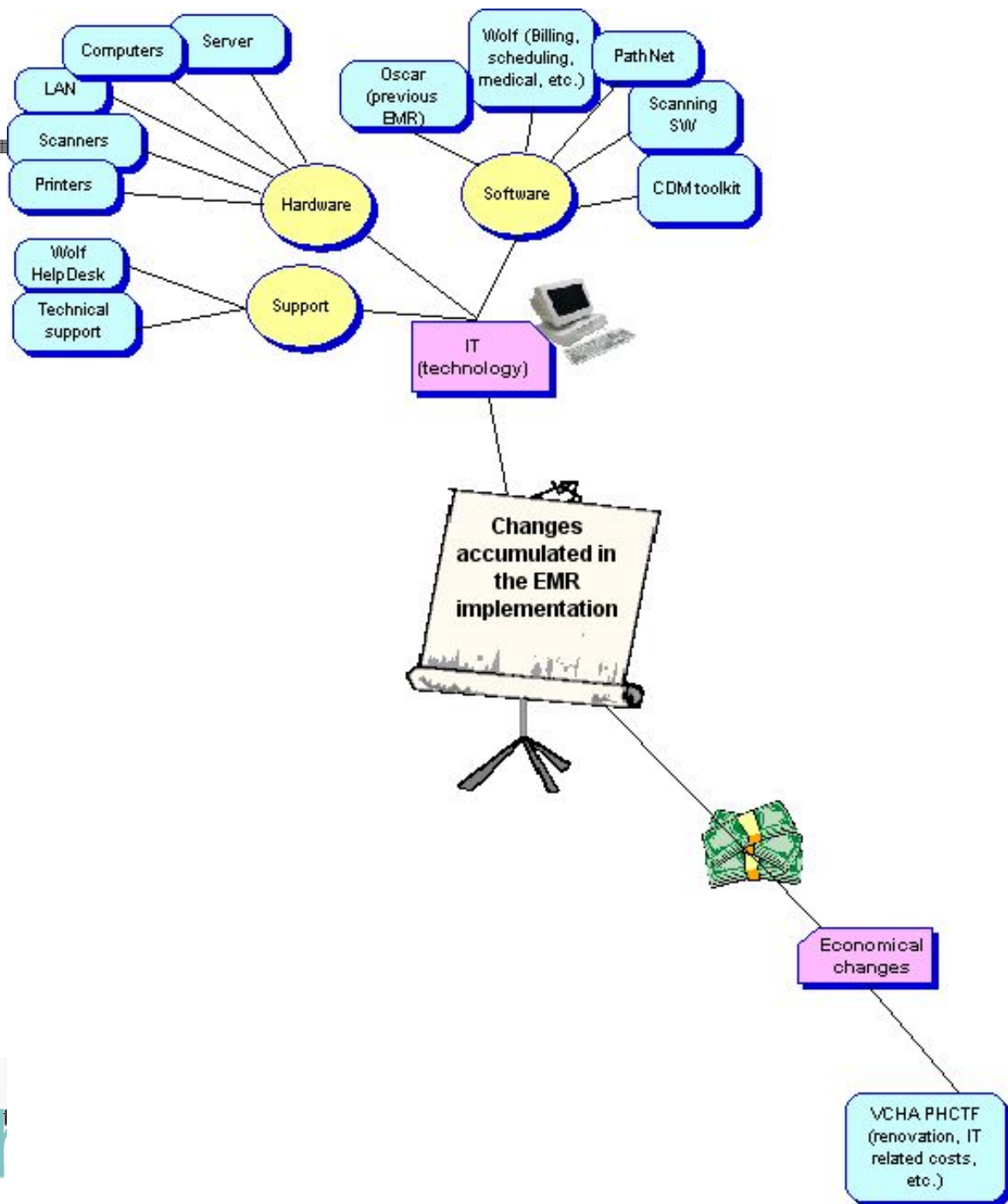
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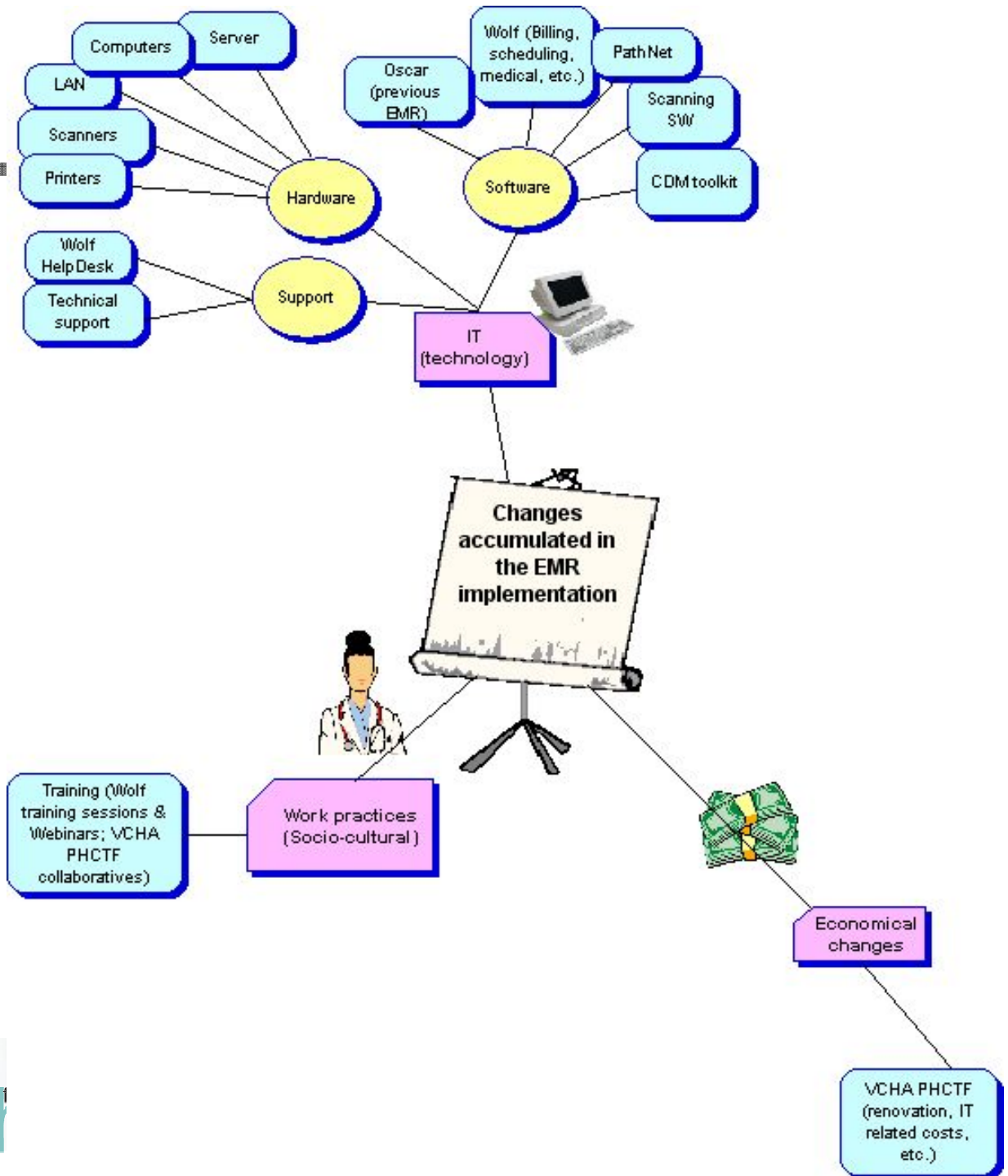
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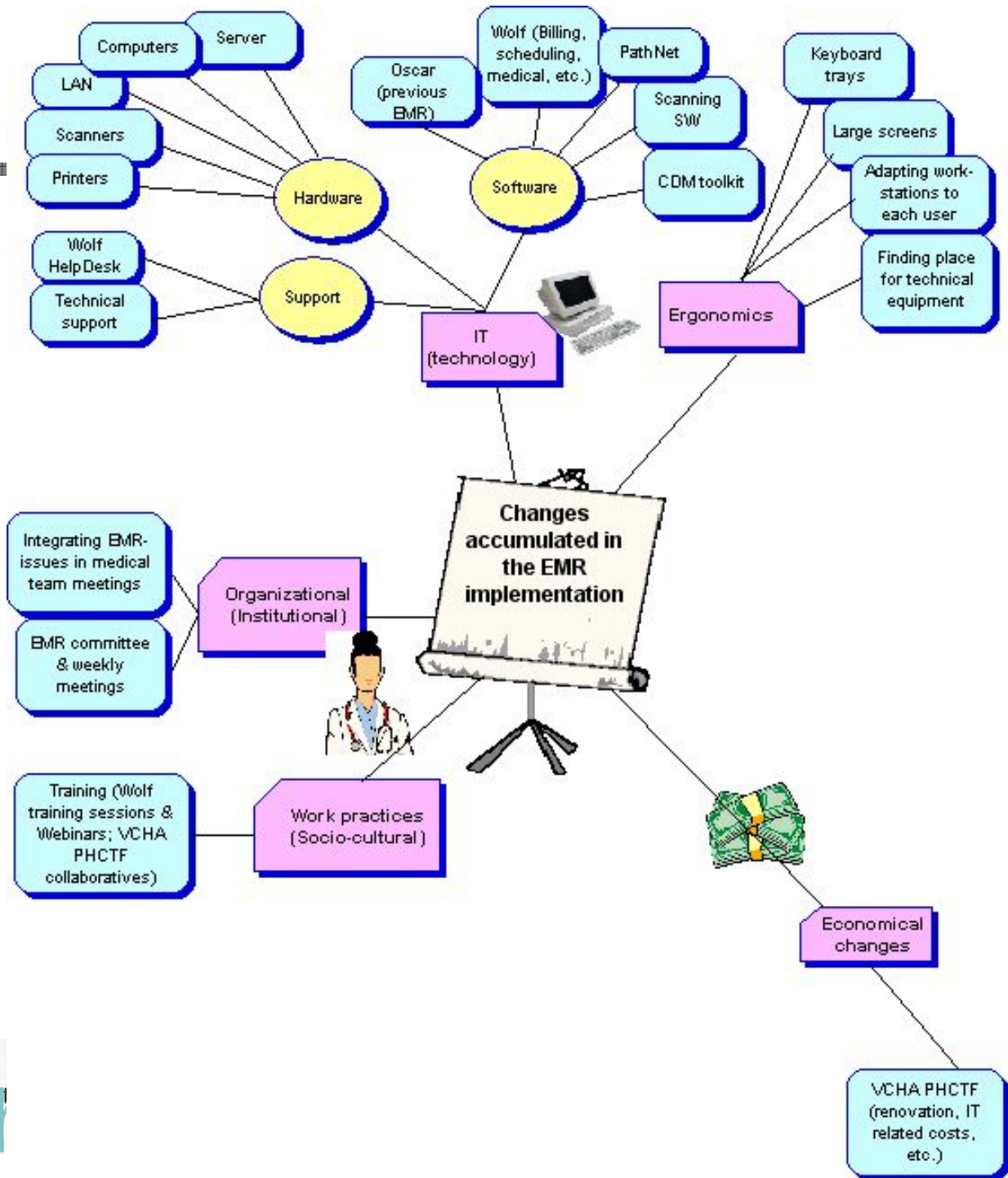
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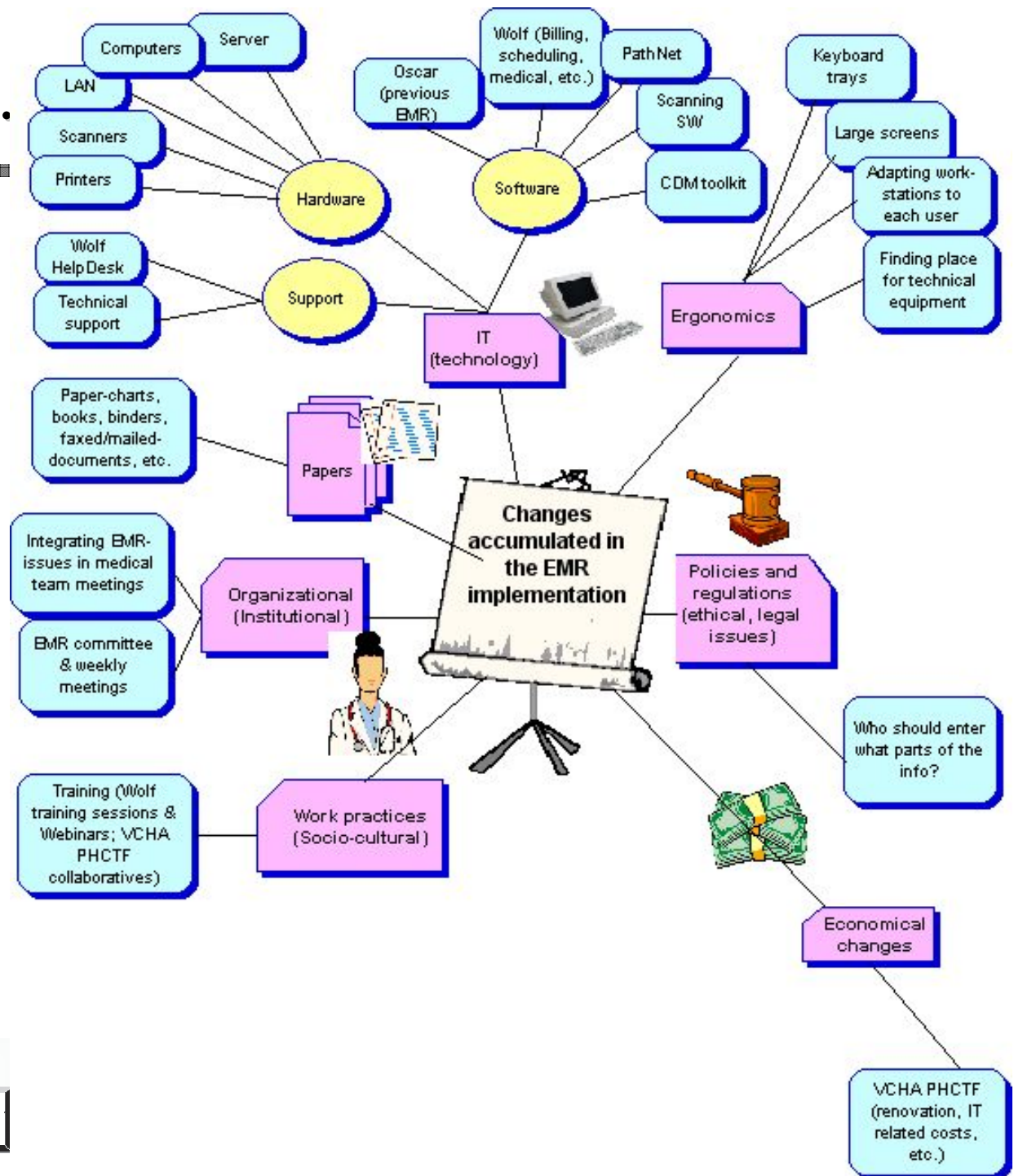
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4.3- The EMR gaining its technical existence



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4. 3- Continue...



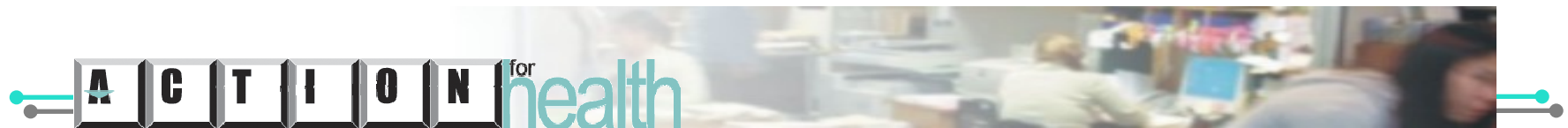
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5. From Abstract Visions to Concrete Reality



5.1- The tension between the visible and hidden changes

5.2- When abstract design principles meet work practices



5. 1- The Tension between the Visible & Hidden changes

- ❑ 'Chart prepping'/'filling practice'- diminish dramatically.
- ❑ The practice of signing and date-stamping paper documents was stopped.
- ❑ Changes in the division of labour (redefinition of responsibilities and interdependencies):
 - ❑ Doctors- responsible for additional administrative tasks.
 - ❑ Doctors scan information while sitting together with the patient.
- ❑ Changes in performance of activities: communication and charting practice conducted through the computer.
 - ❑ New communication channels: i.e. messaging feature
 - ❑ 'Post-it-note' → replaced by e-reminders (prompts)

5. 1- Continue...

- ❑ These changes must be taken into account where summarizing and evaluating EMR implementations:
 - ❑ Adequate IT competencies
 - ❑ Technical support
 - ❑ Training
 - ❑ Guidelines, etc.

- ❑ Existing status → Middle realm: loosely coupled systems existing on top of hybrid information infrastructure.

5.2- When abstract design principles meet work practices

Evaluating technical issues related to the EMR-technology:

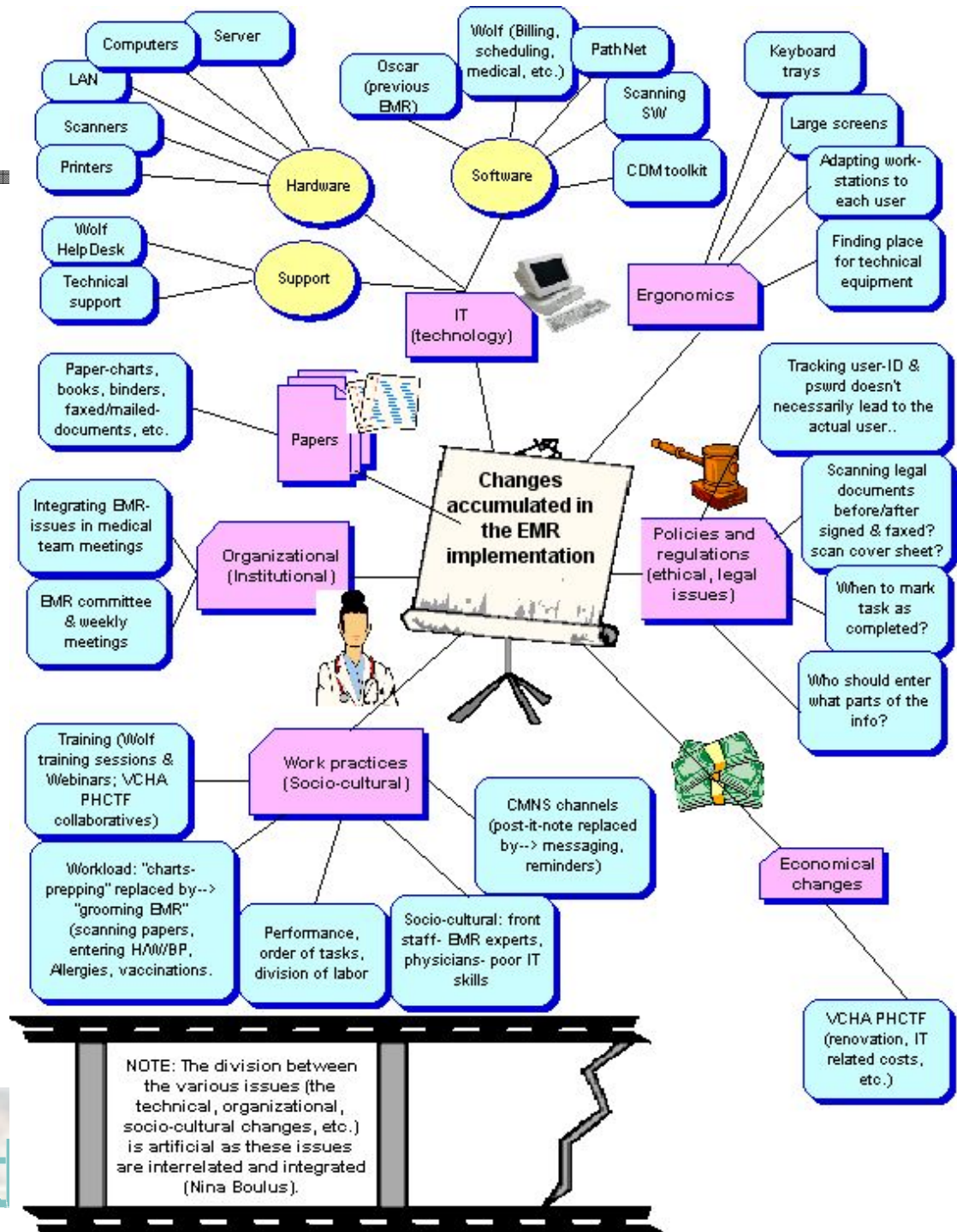
- ❑ Highly configurable architecture, easy-to-use, easy navigation and user-interface, supports transparency and workflow, tailorable and supports various levels of flexibility.
- ❑ However, when there is a gap between the existing and expected practices, the system often turns to be restricting and limiting. Examples:
 - ❑ Vaccination shots.
 - ❑ Long follow-up list

Applying configurability does not automatically result in a successful CSCW application

Important to develop sensibility for the context and include the invisible, or perhaps hidden, complexities that have currently been a bottle neck in the transition process.

6. Concluding

Remarks



➤ Acknowledgements



Thank you for listening!

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