Informatics Teachers Education, Curricula, and Technology in Teaching Informatics

# 42 years of Informatics Teachers Education in Slovakia

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The Sixties The Seventies The Eighties

### The Sixties

#### Experiment in Computer Education - 1962

Hardware Dominance (consequences)

The Sixties The Seventies The Eighties

### The Seventies

First Complex Study of Informatics at Comenius University – 1973 Informatics Developing Within the Math Community Conferences and Contacts with the World (MFCS, SOFSEM) Secondary School Classes with Informatics and Programming Curriculum

The Sixties The Seventies The Eighties

### The Eighties

#### **Statewide Unified Curricula**

# Informatics Teachers Education at the Comenius University – 1982

Talents – Correspondence Seminar and Informatics Olympiad – since 1985

The Outside Rules Design Philosophy Catching up

### The Outside Rules

Two subjects combination

Five years study

Benefit of 'experiment'

The Outside Rules Design Philosophy Catching up

### Design Philosophy

Two subjects – Informatics and Mathematics

Strong base in both Informatics and Mathematics

General Philosophy and Pedagogy

**Didactics of Informatics and Mathematics** 

**Practical teaching** 

The Outside Rules Design Philosophy Catching up

# Catching up

#### Lack of Informatics Teachers

#### Reeducating Teachers of Other Subjects (Math)

Pedagogy and Didactics for Informatics Graduates

General Setting Current Chalenges

Informatics compulsory from the elementary school

Initially from the 2nd grade, now from the 3rd

Who teaches informatics? Lower elementary – Generalists Upper elementary and Secondary – MSc Informatics Teachers

Statewide Rules for Teachers Education

General Setting Current Chalenges

## Current

#### Stressing general pedagogy over domain knowledge the 40 - 30 - 30 rule

#### Informatics combined with many subjects Physics, Biology, Chemistry, Geography, English

General Setting Current Chalenges

# Chalenges

#### Lack of Informatics Teachers attraction from industry

#### Lack of Students at Teacher Education Studies

General Setting Current Chalenges

# Chalenges

#### Lack of Informatics Teachers attraction from industry

#### Lack of Students at Teacher Education Studies

Is domain knowledge really less important?

General Setting Current Chalenges

#### Thank You

#### For those interested in early history

J. Dujnič, N. Frištacký, Ľ. Molnár, I. Plander, and B. Rovan: On the History of Computer Science, Computer Engineering, and Computer Technology Development in Slovakia, IEEE Annals of the History of Computing, Vol. 21, No. 3, 1999.