Computer-assisted Instruction

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What is Computer-assisted Instruction?
- Some definitions
- Other uses of computers in education

Modes of CAI
- Drill and practice
- Problem solving tool: Computer-based laboratory
- Simulation and gaming
- Computer-managed instruction
- Tutorial CAI

Development of CAI since 1960
- Programmed instruction and the trend toward individualization
- Technical advances that made CAI possible
- Early work
- Popularization
- The answer to a problem that no longer exists
- The retreat of industry from CAI development

Why bother?
- Individualization
- Research in teaching and learning
- Getting teachers into the act
- A new medium
What's happening today?

- Drill and practice on the minis
- Giant systems devoted to CAI
- Development of audio-visual peripherals
- Simulation and gaming at the universities
- AI in CAI

Problems

- Difficulty of producing quality curricula
- Insufficient theory of instruction
- Resistance within the educational system
- Costs
- Needed technical developments

Current work at IMSSS-Stanford

- The Brentwood initial reading project
- Dial-A-Drill
- CAI in complex technical subjects
- Individualization of tutorial CAI

References

