Science labs & mini-fablabs in schools
Personal & Digital Fabrication in education

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Evolution of FabLabs

2005: Neil Gershenfeld, MIT, workshop How to make almost anything / book FAB
2010: 30 FabLabs worldwide
2013: 250? FabLabs worldwide

Fablabs globally
Competitors
Schools visiting FabLabs
Workshops at schools
Workshops at schools
Benefits

Learn to download, draw 2D and 3D, scan 3D
Learn to produce: print 3D, lasercutting, vinylcutting, 3D milling etc
Learn to program software
Learn to share knowledge and collaborate
Learn to publish designs and to earn money
Benefits

History class: historic artifacts
Geography class: printing / lasercutted maps
Cooking class: printing food / molds for ices etc
Chemistry class: print molecules
Biology class: printing organs to study
Professions of the near future

- 3D printing architect
- Augmented reality engineer
- Traffic engineer
- Robot engineer
- Smart energy expert
- Cross-data analyst
- Knowledge Manager
- Life cycle technologist
Schools buying 3D-printers for science & IT
Plug & Play 3D-printers for culture class etc.
Science labs & mini FabLabs

Complete equipment
Pupils training pupils and teachers
Part of normal curriculum
Research for curriculum topics
Research for SME’s
Produce prototypes for SME’s
New role of FabLabs

Not anymore / less: raise awareness / train children
Still: support innovation, train people 20+
More: central knowledge institute, supporting science labs, more complex research in collaboration with universities / polytechnics
Needed: professional training of employees / funding of central government / share knowledge