*e*duc@TIon

a Mobile Learning Experience

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educ@TIon – Telecom Italia Framework for mLearning

A **new proposition** offering a complete solution of innovative, license-free, integrated web applications with a modular approach

Based on "**Nuvola Italiana**", the Telecom Italia cloud computing platform

Open to **cooperative learning** and to ***Web 2.0*** interactions, where the "student" becomes active part of the learning process

Student Centred Approach

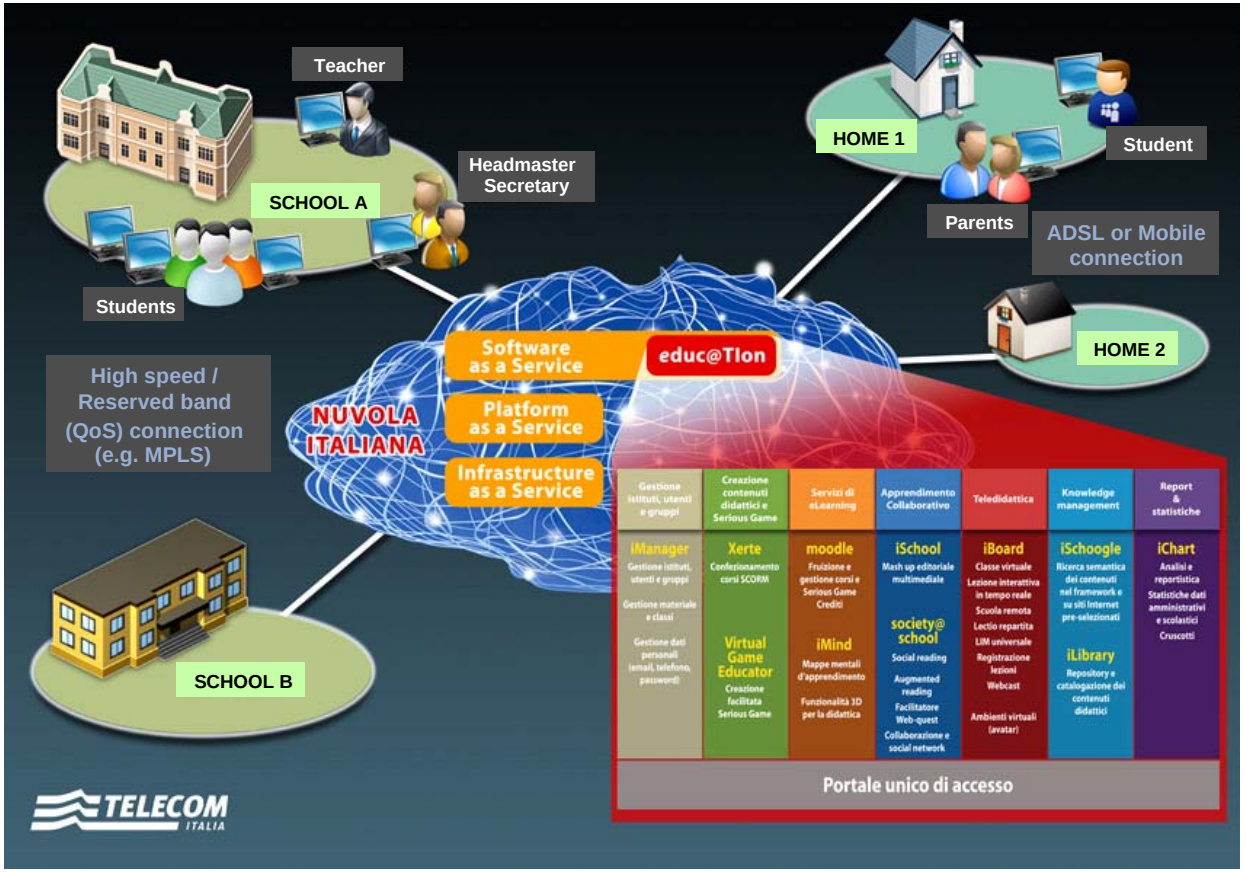
Agnostic towards contents (multimedia, editorial, self-produced, available on Internet, …)

Agnostic towards devices: no hardware pre-requirements needed

educ@TIon – Strategy and Innovative Goals

Transform traditional learning to become closer to today-student-habits and **keep up with technology evolution** (e.g.: multimedia learning books):

- introduce mobile devices in the learning experience
- establish didactic social networks
- promote collaborative learning communities
- overcome barriers of teaching time and space
- exploit connettivity (from "school on the net" to a "net of schools")

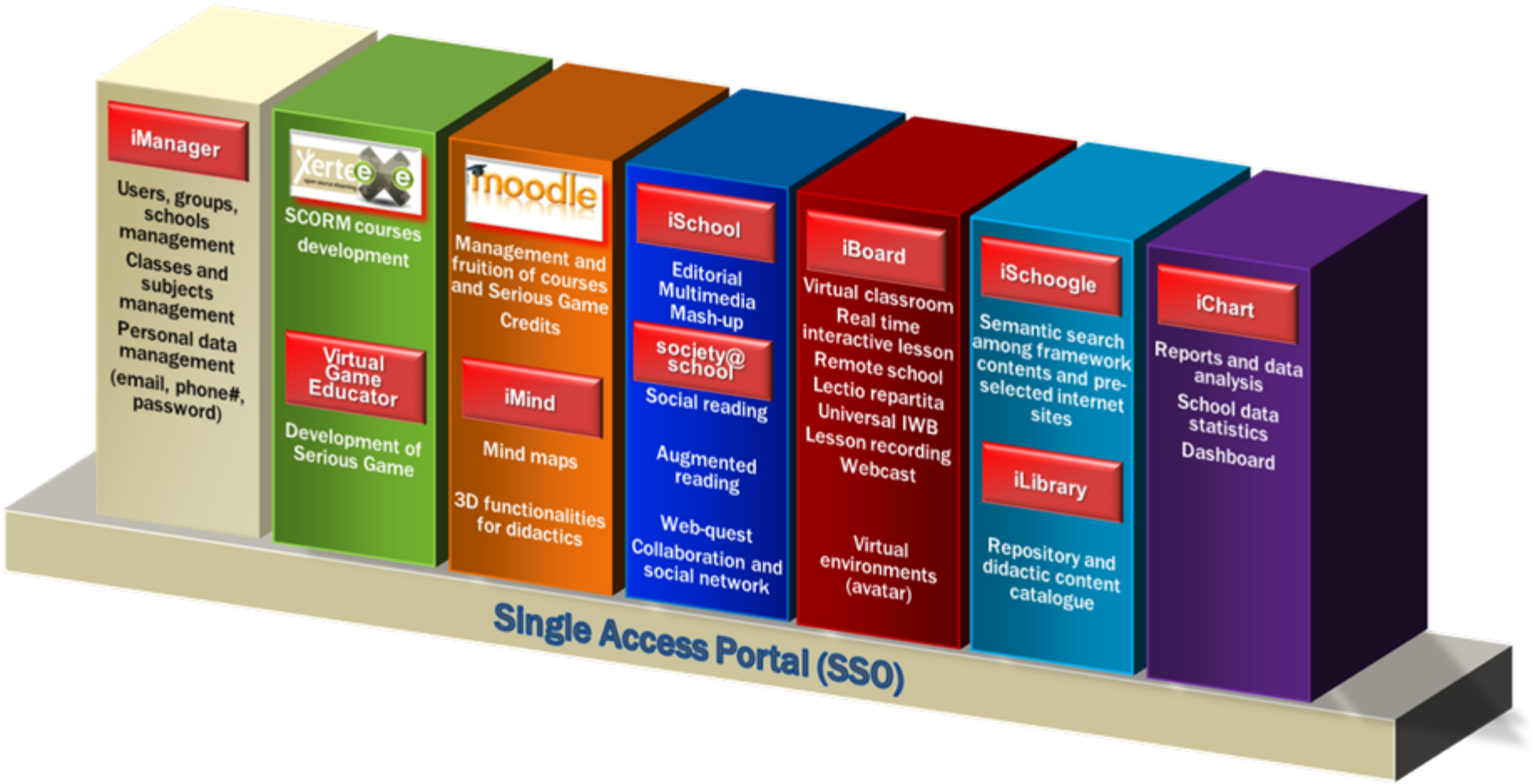


educ@TIon – Technical Characteristics

- ***modular Web Application*** to guarantee flexibility
- based on multiplatform "***open source***" modules and applications specifically developed, to avoid sw license costs and to assure application usage on every type of devices
- a **Software as a Service** solution to assure:
  - **scalability**: tailored according to specific school needs; multitenancy to reduce, up to zero, impacts on school data centre
  - **reliability**: "Nuvola Italiana" assures continuity in delivering services, capitalizing the high-availability architecture of the cloud computing virtualization system
  - **security**: security certifications of "Nuvola Italiana", Single-Sign-On and profiling systems strengthen the security policy and offer flexibility in platform management

educ@TIon – Functionalities: Logical Structures

educ@TIon – Functionalities: Applications and Tools



The Methodology Sources at the Basis of educ@TIon

- In line with the cl@sse 2.0 project guideline of the **Italian Agenzia Nazionale per l'Autonomia Scolastica**:

  *"... the improvement process promoted by the project includes several multi-levels ranging from the organizational level to the learning one, and that, starting from the needs of the school, will need to plan for the **integration of technologies (both instrumental and methodological).** The focus, therefore, is not the technology itself, but the **dynamics of innovation triggered by technology in the educational environment** ..."*

- **Piaget** and **Vygotsky** teaching methodological innovation (constructivism, proximal development, positive interdependence, structuring of roles)
  - **Cooperative and participatory learning -** active student role in the cognitive activities (students are active agents of their training, not only receptors of contents but producers of knowledge)
  - **Peer education** - educational strategy aimed at starting a collaborative relationship between students during educational process ("active approach": the student is led to seek solutions and contribute to the learning/ teaching process of others)

The educ@TIon Trials – Who, When and Where

Autonomous Province of Bolzano– five schools

Convitto Nazionale Umberto I - Turin

Autonomous Province of Trent (ITT Buonarroti e province Innovation Department)

Regional Education Office Emilia-Romagna (two schools in Bologna and Reggio Emilia)

eBook Trial at Scuola Media Valgimigli (Padua)

educ@TIon Trial for a Teachers Training Project on the Didactic Use of Mind Maps (Venice)

iSchool Trial at ITT Buonarroti in Trent

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iSchool Trial at Istituto Suor Orsola Benincasa in Naples

educ@TIon Trial at Istituto Suor Orsola Benincasa in Naples

educ@TIon Trial at S.M.S. Rosso di San Secondo in Caltanissetta

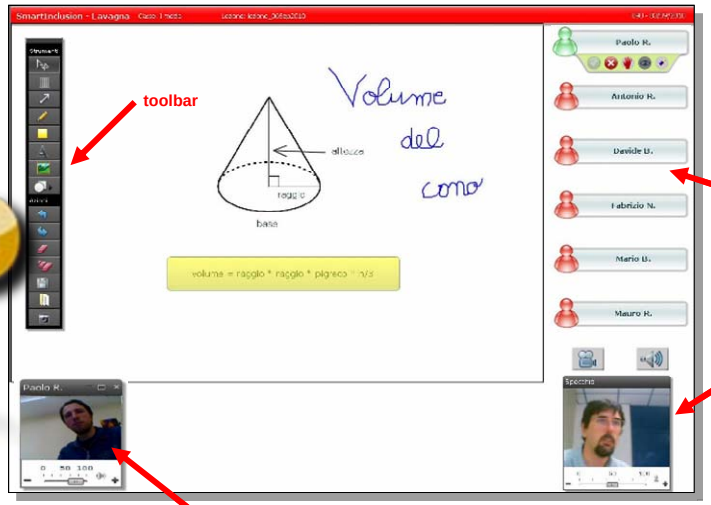
educ@TIon Trial at S.M.S. Rosso di San Secondo in Caltanissetta

2010/2011 Trials – 3 schools with 1 classroom each, for a total of 80 users

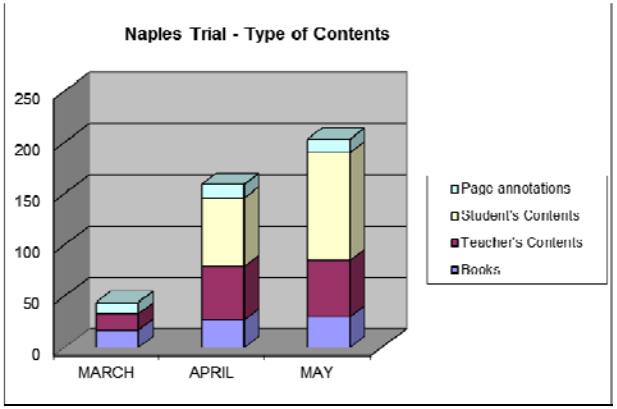
2011/2012 Trials – 6 schools for a total of 12 classrooms and 300 users

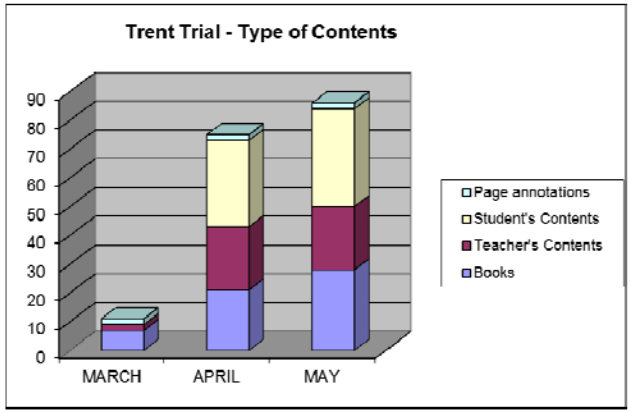
2012/2013 Running Trials – 10 schools for a total of 20 classrooms and 600 users

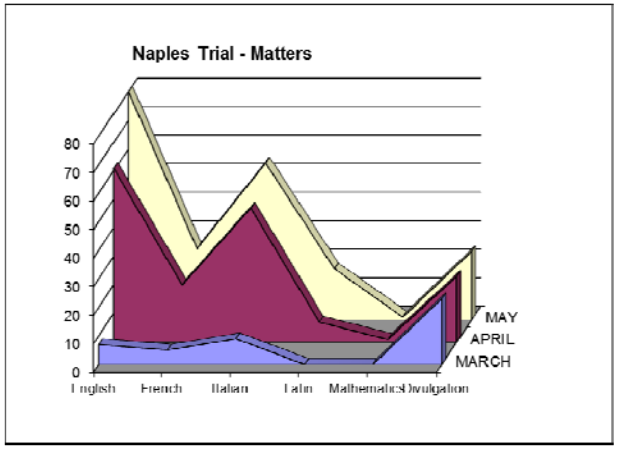
The educ@TIon Trials – What

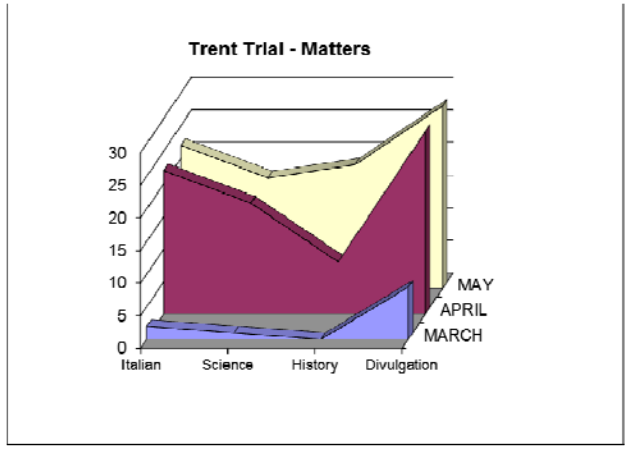


The educ@TIon Trials – Results 2010-2011









The quantitative data demonstrate how the use of the ICT solutions for digital learning have been incremental over the time of the trial, driven not only by the "start-up-effect" but proving the increasing interest and progressive adoption in the classes.

The figure also shows how the ICT environment has been initially used for extra curricular topics and subsequently expanded to the use of also "traditional" subjects

The educ@TIon Trials – Results 2010-2011

Extremely high approval by both schools (in particular by headmasters and the teachers involved), even if for teachers it implied a very high start-up effort

N.B.: strategic for the student involvement and the success of the trials were all side activities offered alongside the trial (i.e.: workshops, TILab trip to Turin and competition for the redesign of the software interface).

- Trent - the **percentage of rejected** in the class involved in the trial was 12,5% - compared to 15,1% of the other 10 first classes of the Institute
- in both schools a **higher grade** point average on all subjects was reached with respect to the other school sections
- Student **approval rating** of 100%, detected through an anonymous questionnaire, together with the unanimous request to continue with the use of ICT technologies also in the next year
- class councils asked the school to continue the trial (with voluntary offer of financial support from parents), based on the **greater enthusiasm** showed by students to attend school

The educ@TIon Trials – Results 2011-2012

Questionnaires/Feedback Numbers

School	Numbers	Questionnaires from students	Questionnaires from teachers	Notes
Trent (senior high school)	2 classes	37	n.a.	Questionnaires submitted only to students
Turin (senior high school)	1 class	17	2	
Reggio Emilia (junior high school)	1 class, and partially another class	24	3	
Bologna (senior high school)	1 class	5	1	low number questionnaires due to problems at the end of school year
Caltanissetta (junior high school)	1 class, and other teachers	13	14	Questionnaires submitted to all teachers involved in the trial

The educ@TIon Trials – Results 2011-2012

Students from Trent

	 %	 %	 %
Did you like the trail?	0	11	89
Do you want to continue next year?	0	22	78
Did you use all available functionalities?	3	38	59
Your global evaluation?	0	43	57
Do you think this trail can be useful for your learning?	0	27	73

Teachers&Students from other Schools

(*) a lot, enough, a few, nothing	Teachers (20)	Students (59)
After working with educ@TIon, do you like it?	enough (*)	enough / a lot (*)
Does educ@TIon give more value to your learning?	enough (*)	enough (*)
Is the use of educ@TIon useful?	For all subjects, at home and at school	For all subjects
Is it easy to show/read contents and annotations?	almost enough (*)	enough (*)
Is it easy to modify contents and annotations?	enough (*)	enough (*)
Do you want to continue using educ@TIon next year?	With enhancements	Yes, better if enhanced
Mark from 1 to 10 (average)	7,1	7,4

Hands-on: Let's Try it!

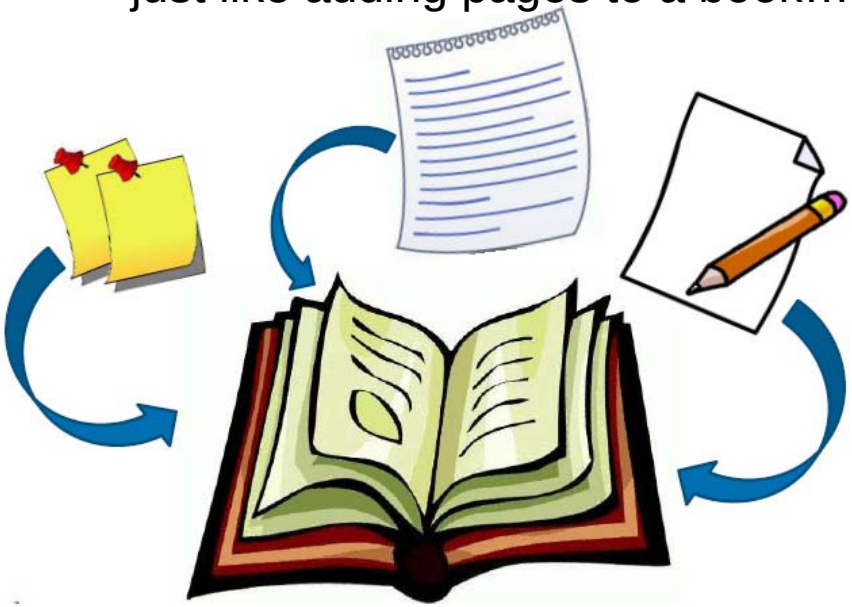
https://digitalschool.telecomitalia.it/index.php

ID: studente.uno@idemo

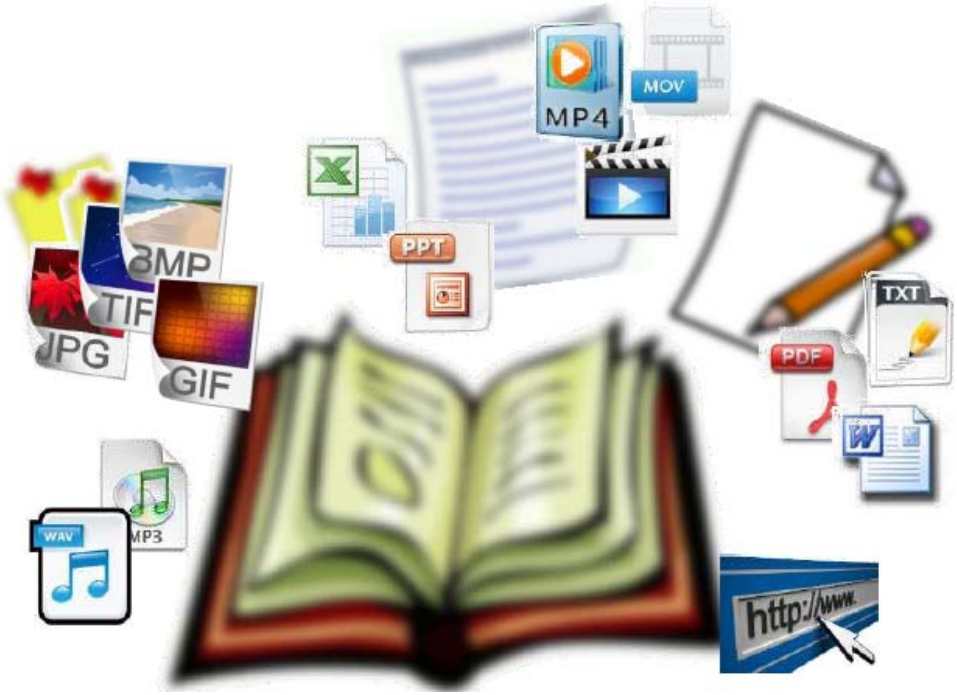
Password: .uno

iSchool – a Collaborative Editorial Multimedia Mash-up

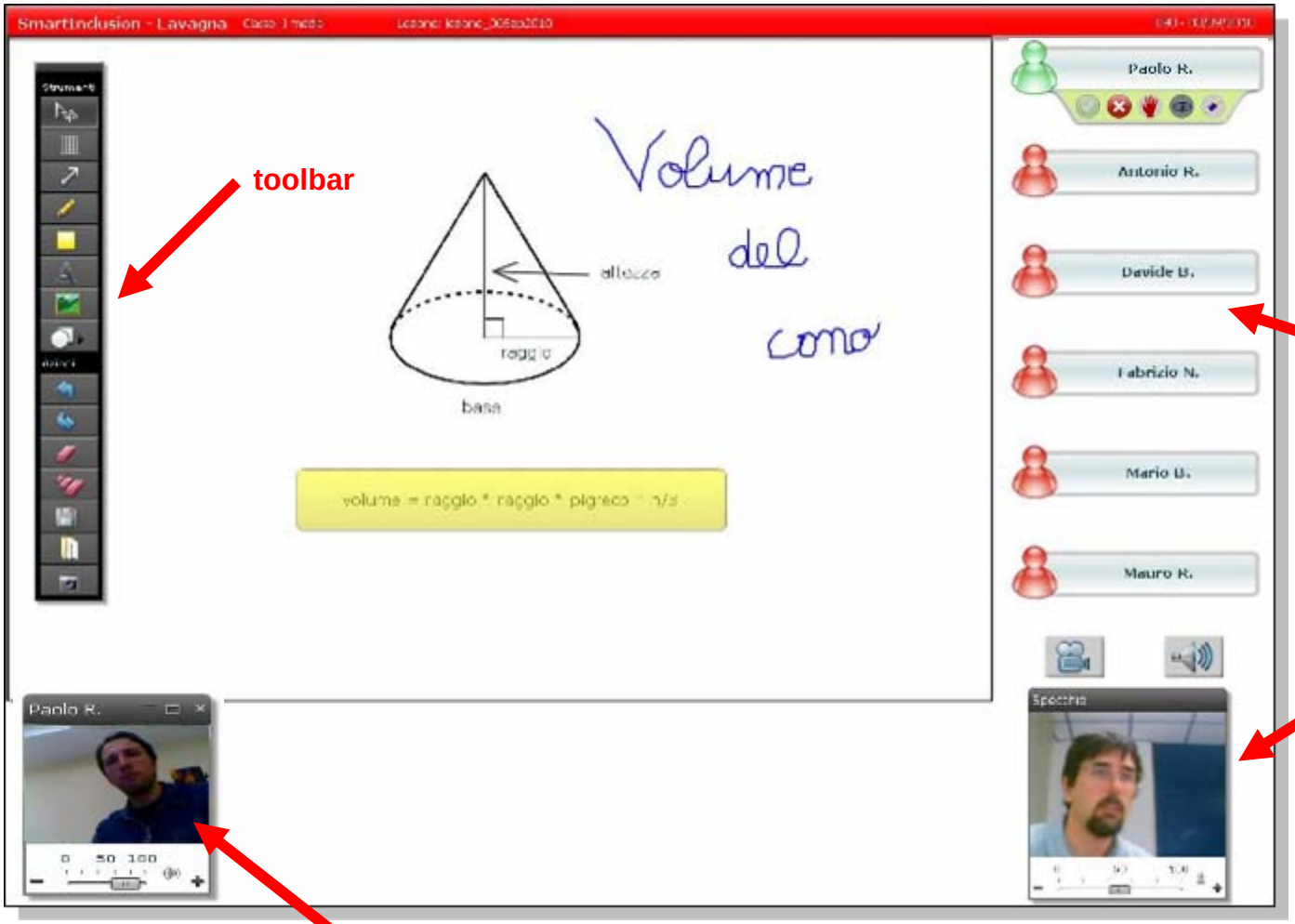
just like adding pages to a book…



…”multimedia pages”



iBoard – a Virtual Classroom Environment



Thank you!

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