



Greek School Network
The Network in the service of Education

www.sch.gr



The biggest public network in Greece. It servers the educational community that consists of more than : **1.350.000** students **160.000** teachers and administrative staff.

Interconnects: **17.259** schools, **848** administrative offices, **7.407** other units (libraries, etc), **>9.000** school LANs.

Personalized access to **143.683** teachers and administrative staff and **115.155** pupils.

284.259 mailboxes, **47.622** blogs, **857** communities, **17.697** active sites, **5.689** digital courses at current year, **>105.000** visitors/month, **154.724** helpdesk requests at 2017.

«**Closed**» educational intranet – Students' safety is the main aim.

Broadband penetration: **98,9%**. More than **1.580 schools** connected through optical fiber.

Offers the means and the ways in order to formulate **Greek educational Web communities**



❖ Active users/mailboxes	284.259
❖ Accounts of school units	15.199
❖ Accounts of administrative units	7.318
❖ Personal accounts of teachers	112.632 (+1.169 of private schools)
❖ Retired teachers	23.171
❖ Personal accounts of pupils	115.155
❖ Total active websites	17.697
❖ Teleconference (members)	14.207
❖ Digital Courses (current school year)	5.689 courses from 1.120 schools
❖ Educational communities	857
❖ Educational blogs (total)	47.622
❖ Educational magazines	2.028
❖ Collaborative docs (users)	7.361





- ❖ GSN portal (www.sch.gr) > **300.000** unique visitors per month
- ❖ **Broadband penetration** in schools:

< 10 Mb/s	3.234	(24%)	ADSL 2 Mbps (mainly) or ISDN
10 Mb/s - 100 Mb/s	8.535	(64%)	ADSL 24 Mbps
100 Mb/s - 1 Gb/s	1.580	(12%)	Fiber Optic
- ❖ More than **90.000 PCs** (workstations and laptops) connected at almost **9.000 school LANs** (managed by GSN).
- ❖ Helpdesk requests > **150.000** per year





- ❖ **All** teachers and students have secured **web-access** through school IT infrastructures, mainly for educational purposes.
- ❖ The **certification** of users is a **particularly powerful requirement**, due to its education-oriented scope.
- ❖ **All users are certified** with their identity through the **informational systems (registry)** of the Ministry of Education.





Total number of users: 284.259

Official school unit accounts: 15.199

- Primary Education School Units (Public): 10.077
- Primary Education School Units (Private): 654
- Secondary Education School Units (Public): 3.653
- Secondary Education School Units (Private): 217
- Administrative Units (Primary Education): 75
- Administrative Units (Secondary Education): 106
- Regional Directorates: 13
- Post-secondary: 153
- Educational Support Units: 251

Other school unit accounts : 7.318



Personal accounts:

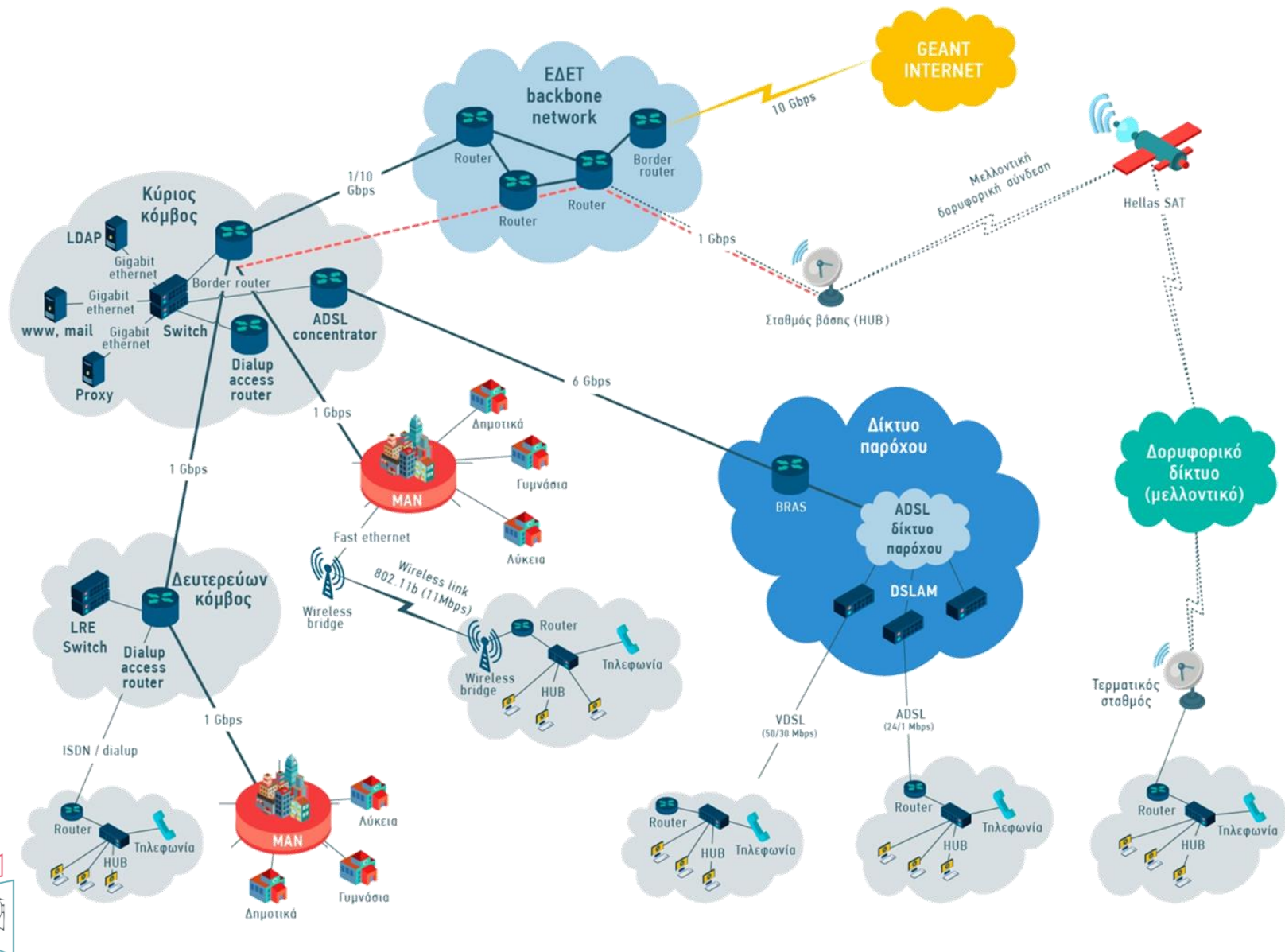
- Personnel 2.904
- Teachers 112.632
- Deputies (2017-18) 6.711
- Teachers (Private Schools) 1.169
- Retired teachers 23.171
- Pupils (active) 115.155



MoE has a strategic plan (EU and national funding), in order to modernize the education system through the use of the ICTs. Related actions include:

- ❖ Installation of modern **computer laboratories** [Action: edulabs.minedu.gov.gr]
- ❖ Schools interconnection to optical metropolitan area networks, enabling **high-speed optical access** to GSN and Internet.
- ❖ Implementation of **web-based educational content**.
- ❖ Conversion of traditional books to **interactive electronic books**.
- ❖ Upgrade the **old IT school laboratories** using Linux (L2TSP).
- ❖ Interactive and experimental learning environment considering the use of **innovative environments** [tablets, e-book readers, etc].
- ❖ Initiation of "**Bring You Own Device**" (BYOD) methodology to primary and secondary schools.









- ❖ Broadband access [ADSL 24 Mbps, VDSL 50 Mbps, Fiber Optic 1 Gbps]
- ❖ Email with **collaborative capabilities** and mailing lists.
- ❖ **Web portals**, which provide useful **educational material**
- ❖ **Web filters**, to **protect pupils** from inappropriate web content
- ❖ Special portal for **Internet Safety**
- ❖ Web hosting and wizards to create **dynamic school web pages**
- ❖ **Web conferences**
- ❖ **Blogging** and **social networking**
- ❖ **School magazines**
- ❖ File sharing and **cloud services**
- ❖ **e-Learning**
- ❖ **Video on Demand** and Live web-castings
- ❖ Portal for Educational Open Source Software
- ❖ Digital Certificates, QoS, IPv6, DNS, LDAP, etc.





E-mail (webmail.sch.gr)

- Active inboxes: **284.259**
- Space: **10 GB**
- 10 days **history**
- Virus and spam **protection**
- SMTP authentication
- Problem reporting and support
- Monthly use **> 42.000 users**

The screenshot shows the login interface for the sch.gr webmail service. At the top, the sch.gr logo is on the left, and the text 'Πανελλήνιο Σχολικό Δίκτυο' and 'Ηλεκτρονικό Ταχυδρομείο' is on the right. Below this is a login form with fields for 'Όνομα Χρήστη', 'Κωδικός', and 'Γλώσσα' (set to 'Greek (Ελληνικά)'). There is a checkbox for 'Χρήση SSL' which is checked, and a 'Είσοδος' button. To the right of the form, there are four bullet points explaining features: 1. 'Ασφαλής σύνδεση με χρήση SSL' (Secure connection using SSL), 2. 'Ηλεκτρονικό Ταχυδρομείο (web mail)' (Electronic Mail), 3. 'Προσωπικό Ημερολόγιο, Σημειώσεις και Εργασίες' (Personal Calendar, Notes, and Assignments), and 4. 'Διευθυνσιογράφος και Υπηρεσία Καταλόγου' (Address Book and Directory Service). At the bottom left, there is a note about SSL. At the bottom right, there is a 'Webmail Express' section with a checkbox to always use it.

Πανελλήνιο Σχολικό Δίκτυο
Ηλεκτρονικό Ταχυδρομείο

Όνομα Χρήστη
Κωδικός
Γλώσσα: Greek (Ελληνικά)
Χρήση SSL: ☒
Είσοδος

Ασφαλής σύνδεση με χρήση SSL
Το webmail υποστηρίζει ασφαλή συνδέσεις μέσω του πρωτοκόλλου SSL.

Ηλεκτρονικό Ταχυδρομείο (web mail)
Εύκολα και γρήγορα όπου κι αν βρίσκεστε. Τώρα με υποστήριξη φακέλων εξερχόμενων και όχι μόνο.

Προσωπικό Ημερολόγιο, Σημειώσεις και Εργασίες
Για να οργανώνετε τις πληροφορίες σας.

Διευθυνσιογράφος και Υπηρεσία Καταλόγου
Αναζητήστε τους χρήστες του Πανελληνίου Σχολικού Δικτύου και τις προσωπικές σας καταχωρήσεις.

Γιατί να χρησιμοποιήσω SSL;
Το SSL παρέχει μια ασφαλή σύνδεση χρησιμοποιώντας μεθόδους κρυπτογράφησης για τα προσωπικά σας δεδομένα.

Υπάρχει πάντα και το...
Webmail Express

☐ Θέλω πάντα να χρησιμοποιώ το Webmail Express ως προκαθορισμένη εφαρμογή.

E-mail lists (www.sch.gr/lists)

- Official communication, distribution of circulars, documents, etc.
- Lists: central, prefectural, teachers, students, etc.
- Particularly popular service
- Implementation using Mailman, ezmlm



Teachers and Schools websites

- ❑ Total active webpages: **17.697**
- ❑ Dynamic websites: **> 8.000**
- ❑ Supported technologies ASP/.NET, PHP, MySQL, IIS, MS-SQL Server
- ❑ Wizards for automatic creation of web pages and completed CMS
- ❑ Unlimited space – Gigabit access
- ❑ Implementation using Free Open Source Software
- ❑ Indexing of web pages in the thematic catalog of the GSN



School Portal (www.sch.gr)

- ❑ Entry in the electronic services
- ❑ Structured content for schools, teachers and students
- ❑ Educational catalogue: content in GSN services (eg. web pages and blogs)
- ❑ Announcements for educational events and news
- ❑ Live webcastings
- ❑ Discussion for and school magazines
- ❑ Technical support and statistics
- ❑ RSS Feeds and connections to social media (twitter, facebook, etc)
- ❑ Unique visitors **200.000** (month)
- ❑ Implementation using Joomla



Joomla!™

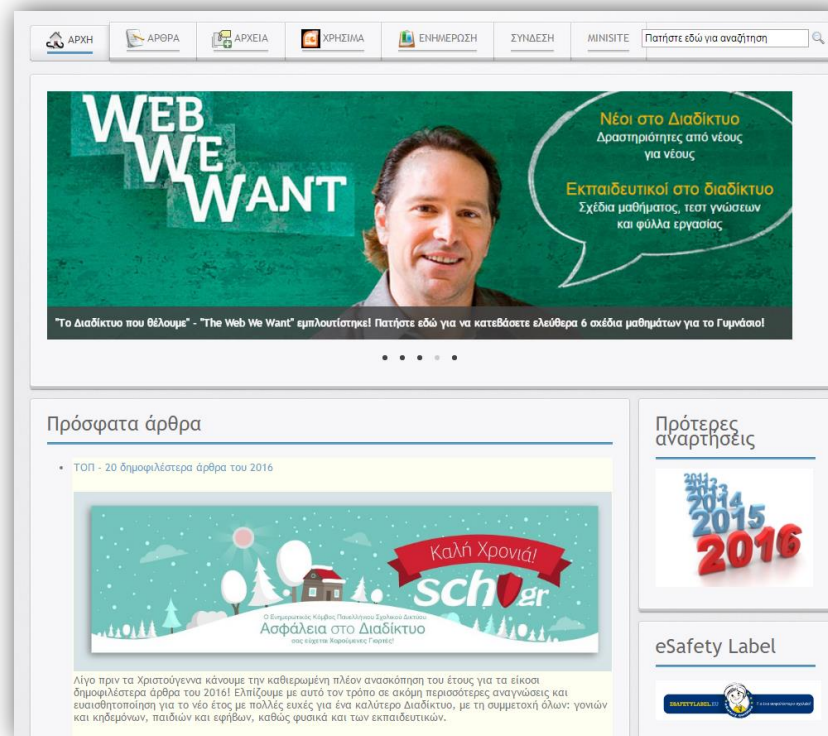
The screenshot shows the homepage of the sch.gr website. At the top, there is a navigation bar with links for 'Υπηρεσίες', 'Υποστήριξη', 'MySch', and 'Σύνδεση', along with a search bar. Below this is a main banner with the text 'Πανελλήνιο Σχολικό Δίκτυο' and 'Το Δίκτυο στην Υπηρεσία της Εκπαίδευσης'. The main content area features a large image of a teacher and a student, with the text 'Υπηρεσίες Βίντεο' and 'Παρακολουθήστε ζωντανές μεταδόσεις, εκπαιδευτικά βίντεο και αναρτήστε τα δικά σας!'. On the left, there is a sidebar with links for 'Για Σχολεία & Γραφεία', 'Για Εκπαιδευτικούς', 'Για Μαθητές', and 'Βιβλιοθήκη εγγράφων'. Below this, there is a section for 'Υπηρεσίες' with links for 'Ηλεκτρονικό Ταχυδρομείο', 'Λίστες Ταχυδρομείου', 'Κοινότητες & Ιστολόγια', 'Συζητήσεις', 'Φιλοξενία Ιστοσελίδων', 'Τηλεκατάρτιση', 'Ηλεκτρονική Τάξη', 'Τηλεδιδασκαλία', 'Υπηρεσία Βίντεο', 'Ζωντανές Μεταδόσεις', 'IP Τηλεφωνία', 'Ψηφιακές Υπογραφές', and 'Τα αρχεία μου'. On the right, there is a section for 'Εκδηλώσεις' with a calendar for July 2011 and a section for 'Σας προτείνουμε'.

<http://internet-safety.sch.gr>

It aims to help schools to implement an empowerment model of safe navigation, arming children with the skills of responsible use of the Internet.

Provided services:

- ❑ Presentation of Acceptable Use Policy (AUP) of GSN
- ❑ Guidelines to schools, teachers and parents for Internet Safety
- ❑ Update on the political content control that implements the GSN
- ❑ Daily information on issues related to the Internet Safety
- ❑ Brochures from GSN and SaferInternet.gr
- ❑ Videos and Presentations
- ❑ Monthly Newsletter
- ❑ Communication with cachemaster
- ❑ Online Community





- ❖ Teleconference service (<http://meeting.sch.gr>) is in operational use, since September 2014 and has hosted more than **1.793 teleconferences** and has more than **14.207 schools**.
- ❖ It supports audiovisual communication and allows presentation view, file and application sharing amongst participants.



BigBlueButton





- ❖ **e-Learning Service** (<http://e-learning.sch.gr/>) is based on the world's leading Learning Management System (LMS) **Moodle**.
- ❖ It provides a convenient interface through the internet, which promotes participative and collaborative learning.
- ❖ This service has been certified according to SCORM LMS-RTE STANDAR and is integrated with the open source web-conferencing system BigBlueButton.
- ❖ More than **1.657 courses** and more than **20.893 end-users**.

The screenshot shows the homepage of the sch.gr e-learning portal. At the top, there is a header with the sch.gr logo and the text 'Τηλεκπαίδευση'. Below the header, there is a navigation bar with links: 'Τηλεκπαίδευση', 'Χαρακτηριστικά και Δυνατότητες', 'Οδηγός Εκπαιδευτή', 'Οδηγός Σπουδαστή', 'Όροι χρήσης', 'Υποστήριξη', and 'Ελληνικά (el)'. A message 'Δεν έχετε εισέλθει. (Είσοδος)' is displayed on the right. The main content area is divided into three columns. The first column has a heading 'Καλώς ήλθατε!' and a sub-heading 'Καλώς ήλθατε στο νέο δικτυακό τόπο της Υπηρεσίας Τηλεκπαίδευσης!'. It features an icon of a house and a button 'Περισσότερα...'. The second column has a heading 'Απόδοση δικαιωμάτων εκπαιδευτή' and a sub-heading 'Για να μπορείτε να δημιουργείτε τα δικά σας μαθήματα στην πλατφόρμα Τηλεκπαίδευσης!'. It features an icon of a person and a button 'Περισσότερα...'. The third column has a heading 'Είσοδος με τα στοιχεία που διατίθενται στο ΠΣΔ' and a sub-heading 'Αποκτήστε λογαριασμό στο ΠΣΔ' and 'Εσχάστε τον κωδικό σας:'. It features an icon of a key and a button 'Είσοδος'. Below the main content area, there is a section titled 'Κατηγορίες μαθημάτων' with a dropdown menu 'Σύμπτυξη όλων'. It lists several categories: 'Μαθήματα εξοικείωσης με την Πλατφόρμα (207)', 'Μαθήματα γενικού περιεχομένου (419)', 'Πληροφορική (265)', 'Σχεδίαση με τη χρήση Η/Υ 111', 'Εκπαιδευτικά Θέματα (88)', and 'Υπηρεσίες Πανελληνίου Σχολικού Δικτύου (14)'. On the right side, there is a calendar widget for April 2016.

Κυρ	Δευ	Τρι	Τετ	Πεμ	Παρ	Σαβ
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

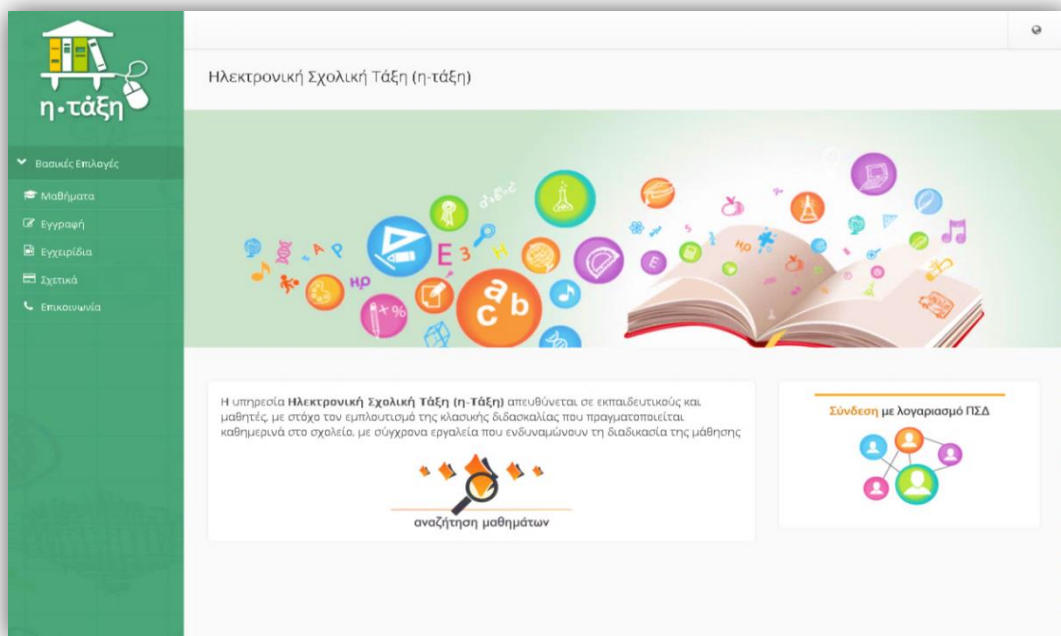


- ❖ **Learning Activity Management Service** (<http://lams.sch.gr>) allows teachers to create lesson plans in the form of flow charts of learning activities sequences.
- ❖ Activities can potentially include a range of individual tasks, small group work and whole class activities based on content and collaboration.



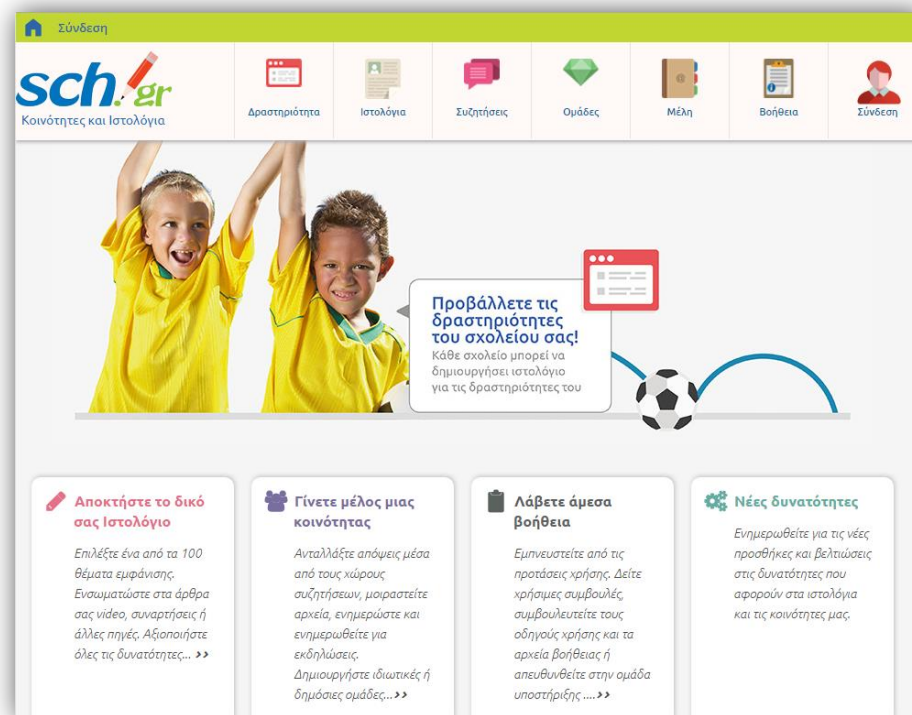
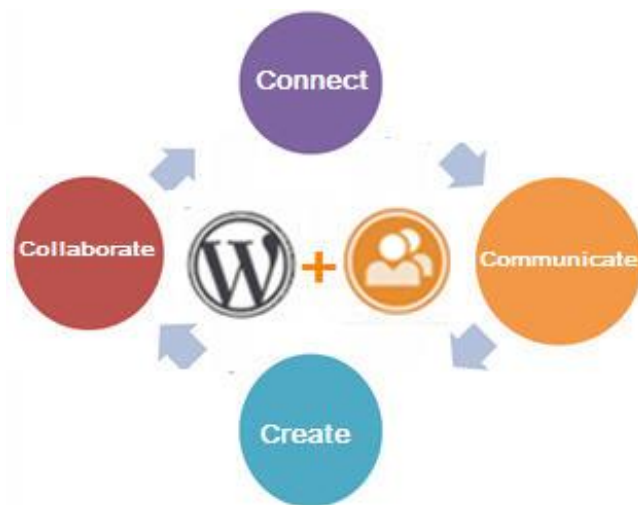


- ❖ **Electronic Classroom** service (<http://eclass.sch.gr>) enriches the courses that takes place daily in the classroom with modern educational ICT tools. The teacher can create online courses and fully interact with students.
- ❖ Based on the **open eclass** e-learning platform.
- ❖ Current school year: More than **14.602 teachers** and **28.100 pupils**
- ❖ Current school year: **5.689 courses** formulated by **1.120 schools**.
- ❖ Overall: **53.280 courses** from 2006 until now.





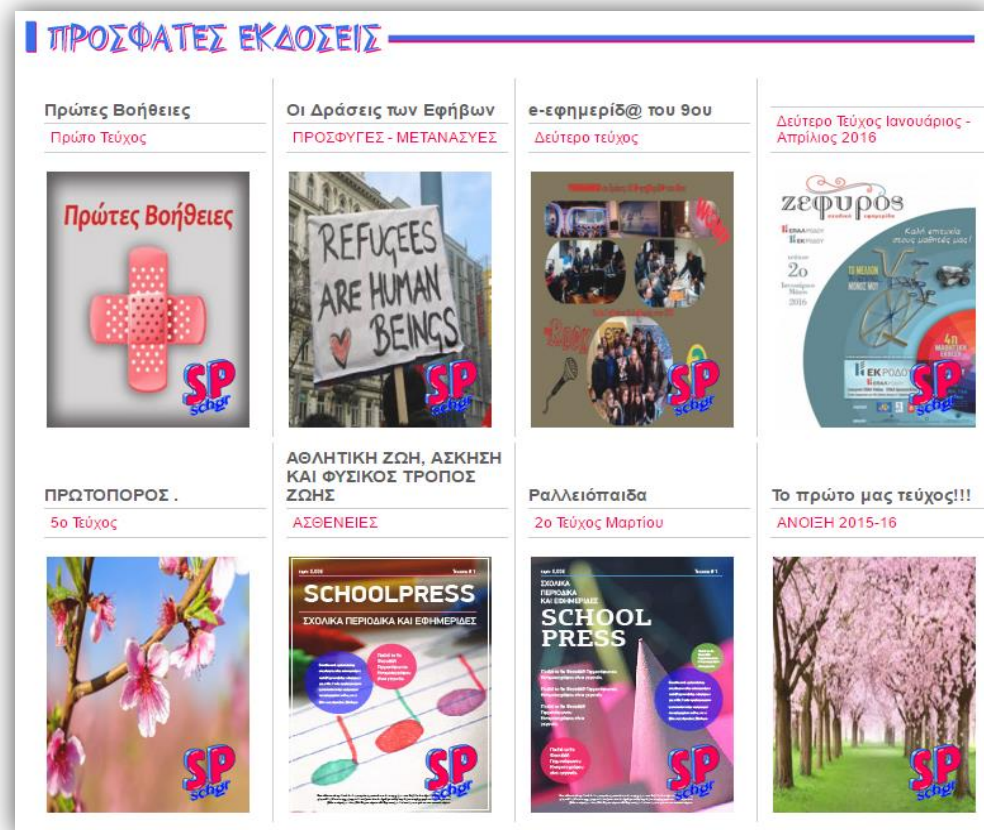
- ❖ **Educational Communities and Blogs** (<http://blogs.sch.gr>) offers users the ability to create their personal blogs, join communities and share their thoughts and experiences with their peers.
- ❖ Also supports: Content curation, microblogging, more than **100** localised themes
- ❖ More than **47.622 users** and blogs, **857 groups** and **22.784 posts** written at last trimester.
- ❖ More than **320.000** unique visitors per month.
- ❖ Utilizes WordPress and BuddyPress



- ❖ **Electronic school magazines** (<http://schoolpress.sch.gr>) offers students and teachers the ability to create electronic newspapers and journals and publish their activities.
- ❖ School press is based WordPress open source platform
- ❖ More than **2.028 Electronic Magazines** with more than **27.584 articles**
- ❖ More than **16.000** unique visitors per month



WORDPRESS





- ❖ **+Grafis:** <http://grafis.sch.gr>
- ❖ Online document management and collaboration
- ❖ Functionality like Dropbox, Google Drive, Microsoft Onedrive, etc.
- ❖ Document creation, processing and storing.
- ❖ File sharing and online processing with other GSN members.
- ❖ Collaborative videos, images and calendars
- ❖ Users **7.361**, Files **782.422**
- ❖ Implemented with OwnCloud

sch.gr +γραφίς Συνεργατικά Έγγραφα

- ▶ **Διαχείριση Εγγράφων**
Δημιουργήστε, επεξεργαστείτε και αποθηκεύστε τα έγγραφά σας.
- ▶ **Κοινή Χρήση Αρχείων**
Διαμοιράστε τα αρχεία σας με άλλα μέλη του ΠΣΔ και επεξεργαστείτε τα ταυτόχρονα.
- ▶ **Συνεργασία**
Συνεργαστείτε με άλλα μέλη του ΠΣΔ με κοινά έγγραφα, εικόνες, βίντεο, ημερολόγια.

Είσοδος

Video on demand (VoD) (vod.sch.gr)

- ❑ Digital file: **4.439** educational videos
- ❑ Sources: Educational Radio-Television, schools' activities, educational events and contests, conferences, etc.
- ❑ Embedding videos in websites and blogs
- ❑ **2.412.587** video views up to date
- ❑ **44.280** favorite video views
- ❑ Implementation using open source

Live events broadcasting

(www.sch.gr/rts) 100 events at last 3 years

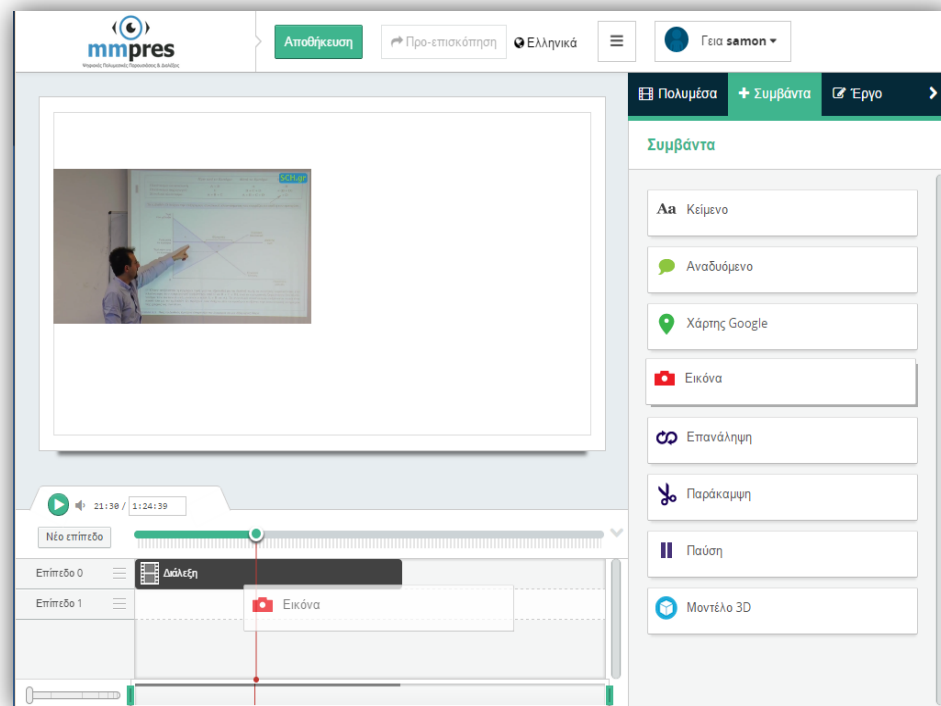


The screenshot displays the sch.gr website interface. At the top, there is a search bar and navigation links for 'Είσοδος' and 'ΕΛ.ΕΠ.'. Below this is a main menu with categories: 'Κατηγορίες', 'Ομάδες', 'Κανάλια', 'Μεταδόσεις', and 'Παρουσιάσεις'. The main content area is divided into sections: 'Πρόσφατα', 'Δημοφιλή', and 'Επιλεγμένα'. Each section contains video thumbnails with titles, durations, and view counts. For example, in the 'Πρόσφατα' section, there is a video titled 'Γνωρίζοντας τον κόσμο - Επεισόδιο 1ο - ...' with a duration of 00:02:44 and 24 views. In the 'Επιλεγμένα' section, there is a video titled 'Η οικογένεια μέσα από την ζωγραφική- Οι...' with a duration of 00:16:43 and 30 views. On the right side, there is a 'Βίντεο ημέρας' section featuring a video titled 'Ειδική θεματική δραστηριότητα 2013-14...' with a duration of 00:03:38. At the bottom right, there is an 'Ανακοινώσεις' section with a notice dated 09-03-2015 about the possibility of live streaming with sch.gr. The footer includes a link to 'Περισσότερα...'.



<http://mmpres.sch.gr>

- ❑ Easy creation of multimedia content for educational purposes.
- ❑ Features:
 - ❑ Pumping videos from many sources.
 - ❑ Add images.
 - ❑ Add widgets such as interactive maps, Popups, text formatting, links, 3-D objects.
 - ❑ Virtual processing raw material.
 - ❑ Interface with vod-new.sch.gr





Educational free open source software library (opensoft.sch.gr)

□ Goals:

- Briefing of the educational community on the usability of the free open source software in the education
- Presentation of other similar actions internationally
- Provision of the means for exchanging ideas and proposals among teachers
- Evaluation of educational software from teachers

□ Content

- Software library
- News – Forum - Links
- Events publishing
- Newsletter – RSS



□ Statistics

- Library of **450** educational open source software packages
- **1.300** registered users, **>69.000** unique visitors, **>550.000** visitors



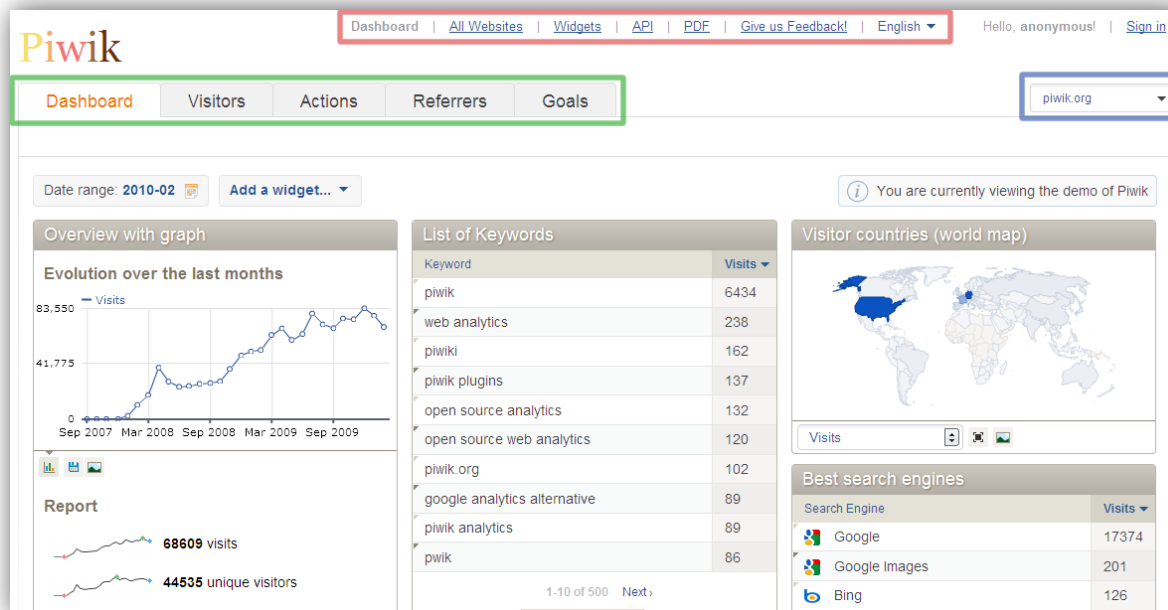
<http://helper.sch.gr>

- ❑ The service consists of three main components:
 - Helper Viewer (manager)
 - Helper Server (server)
 - Helper Agent (user)
- ❑ Enables centralized (SaaS) or local installation server (Helper Server) service
- ❑ Easy installation with the existence of the respective installers
- ❑ Low requirements for resources
- ❑ Ease of use Helper Viewer and Agent
- ❑ Certification administrator via LDAP
- ❑ Created as open source software



<http://analytics.sch.gr>

- ❑ Open source analytics platform
- ❑ used by individuals, companies and governments
- ❑ your data will be yours forever







Conclusions

- GSN makes use of other critical national resources, such as the GRNET, the Fiber Optic Metropolitan Networks and the (planned) Public Sector Network.
- It provides a wide range of electronic services for the Education and the Administration of Education.
- It promotes the educational innovation and IT usage in education
- The network usage has been increasing during the last years.
- The more GSN services have been implemented using Open Source Software and they help in:
 - The enhancement of collaboration between teachers.
 - The exchange and the enrichment of the educational material (internet shared and recycled).
 - The collaboration of teachers with other specialties teachers.
 - The reinforcement of students interest.
 - The cooperative and students learning.
- The GSN is supported by a active community of technicians
- It has develop powerful human networks that contribute to the viability of it's results.



Address: N. Kazantzaki Str, GR-26504, Patras, Greece

Web: <http://www.sch.gr/english> & <http://nts.cti.gr>

Email: info [AT] sch.gr

Tel: 801 11 801 81 (National Use Only), +30 2610 960 308

Fax: +30 2610 960 350

