

1. Internet: Anytime, Anywhere

” “We are all now connected by the Internet, like neurons in a giant brain.”

Stephen Hawking, theoretical physicist

CHECKLIST FACT SHEET 1 – GETTING CONNECTED

Have you made sure that your Internet connection is secured by setting up an antivirus, a firewall and by setting a password for your Wi-Fi router?

Have you set up an acceptable use policy (sometimes called a responsible use policy) for anyone using/accessing the Internet through your network and devices?

Have you set up “guest” accounts on devices that are used by your children?

CHECKLIST FACT SHEET 2 – ONLINE PRESENCE AND THE CLOUD

Have you included contact details in your website or blog?

Have you taken steps to protect your online privacy?

Have you checked that the content that you are using for your website/blog is in accordance with copyright law?

CHECKLIST FACT SHEET 3 – WEB 2.0, WEB 3.0 AND MORE

Systematically seek permission from people featuring in the photos and videos you post online.

User recommendations on travel and product sites can be helpful, but are you sure they are real?

User-generated content fosters creativity and freedom of expression, but also places the onus on you if the Internet is to become a better place.

CHECKLIST FACT SHEET 4 – BLOGS AND VLOGS

Protect your privacy by using a pseudonym and hold back certain personal details.

Protect your blog or vlog from hackers by setting up appropriate security precautions and saving your content regularly.

Understand your blog goal and audience when posting content.

CHECKLIST FACT SHEET 5 – INTERNET ON THE GO

At what age can children safely begin to use mobile devices and which ones are most appropriate for very young children?

Do you understand geolocation and Bluetooth sufficiently to use your mobile devices comfortably and safely?

M-learning and mobile wallets are areas in which the use of mobile devices is changing the way we learn, work and shop. What do you know about these recent evolutions?

Web 2.0, Web 3.0 and more



Web 2.0 enables us not only to download and consume but also to upload and create. The term Web 2.0 refers to a perceived “second-generation” of web-based services that emphasise user-generated content, usability and interoperability. Typical examples are social networking sites (see Fact sheet 8), wikis, communication tools and folksonomies, which all facilitate online collaboration and sharing among users. Rather than referring to any specific technical updates, Web 2.0 encompasses cumulative changes, building on the interactive facilities of “Web 1.0” to provide “network as platform” computing, which allows users to run software applications entirely through a browser.

— Users can own the data on a Web 2.0 site and exercise control over that data, through an “architecture of participation” that encourages users to add value to the application as they use it. This offers huge advantages over traditional websites, which limit visitors to viewing and whose content only the site’s owner can modify. Web 2.0 sites often feature a user-friendly interface based on merged or “rich” media, that is advanced technology such as streaming video, downloaded applets (programs) that interact instantly with the user, and content that changes when the cursor is placed over it.

WEB 3.0 AND MORE

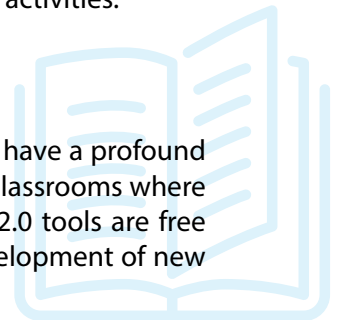
Web 3.0 (sometimes you may also see Web 4.0, 5.0, etc.) is a more widely debated term. Described by some to be the evolution and extension of Web 2.0, other specialists define it as a sort of “connective intelligence” that connects data, concepts, applications and people and, according to many, will ultimately start generating data on its own. Some people prefer the term “Semantic Web” whilst other experts define the Semantic Web as just one of several converging technologies and trends that will define the next big Web evolution.

Other types of networks also exist. The darknet (or dark net) is a network that exists as an overlay to what we call the World Wide Web, and can only be accessed with specific software, configurations or authorisation, usually using special communications protocols and ports. Friend-to-friend (F2F – only direct connections between people who know each other) and peer-to-peer networks (between people with equal user privileges) are usually used for file sharing. Networks such as Tor work via an anonymised series of connections and can therefore be more easily used for illegal activities.



IMPLICATIONS FOR SCHOOLS

Web 2.0 tools facilitate creativity, collaboration and communication, and can have a profound effect on learning. They have promoted new pedagogical models such as flipped classrooms where students do many traditional classroom activities at home¹. Because many Web 2.0 tools are free programs, they have helped reduce the cost of software and encouraged the development of new licencing models for schools.



There are many distinctions between Web 1.0, 2.0 and 3.0 as illustrated in the table below.

Web 1.0	Web 2.0	Web 3.0
Application based	Web based	Multi device/dynamic applications
Isolated	Collaborative	Distributes customised content
Licensed or purchased	Free	Converged multi-licence media
Single creator	Collaborative creation	Creators and devices interact
Proprietary code	Open source	Collaboratively-built, executable
Copyrighted content	Shared content	User- and machine-generated content

Four of the most commonly used Web 2.0 technologies are social networks (see Fact sheet 8), messaging, creating and watching videos and films (via podcast, MP4s, etc.), and wikis, though a number of other technologies exist.

Podcasting² was born with the launch of the iPod (the Apple portable media player launched in 2001) and is a derivative of the words “iPod” and “broadcast”. It was a way to share audio files over the Internet for playback on mobile devices or computers, and was also known as MP3 (MPEG digital file with an audio layer). Today most mobile devices have video-recording facilities and the MP3 has been overtaken by the MP4, a multimedia format that stores both audio and video. Podcasts and MP4 videos make it easier for teachers and pupils to bring the outside world into the classroom and share events and experiences.

Video-sharing has become hugely popular since the launch of YouTube in 2005, and is nowadays also possible through many social media platforms. Teachertube³ is a site dedicated to teachers

1. https://en.wikipedia.org/wiki/Flipped_classroom

2. <http://computer.howstuffworks.com/internet/basics/podcasting.htm>

3. www.teachertube.com

for educational use, based on YouTube⁴, which can also be used by schools and organisations to set up their own video-sharing channels. Video sharing sites⁵ are usually searchable and allow users to post, comment on, tag and watch videos. Many communities exist for producing and sharing videos around a common interest. More recently, sites have appeared which allow users to edit their video clips online and add sound, subtitles and so on. An example is Jumpcut⁶.

— **Wikis** are web pages that allow readers to interact and collaborate with others, as such pages can be edited or added to by anyone. A wiki is a superb Web 2.0 tool for collaborative written work in schools. For example, Google docs⁷ enables users to work collaboratively on texts, slide presentations and tables. Another well-known example of a wiki is Wikipedia, a collaborative encyclopaedia which now includes more up-to-date entries than the Encyclopaedia Britannica.

— **Social bookmarking** allows users to share their user-generated Internet favourites or bookmarks. Traditionally, users would have a list of favourite websites as part of their own Internet browser. Now, social bookmarking allows these lists to be shared easily so that anyone can use them. The content can be classified using tags to make them easier to search and use. The Delicious⁸ website and app is an example of social bookmarking and shows users how many other people have saved a particular site.

— **Photo sharing** is a popular tool that allows users to share photographs with family and friends. One example is Flickr⁹, which allows users to post photos and then invite others to view them either individually or as a slide show. Notes and tags can be added to each photo and others can leave comments too.

— **Photo editing** and enhancing software is now available online and allows users to improve their photos. Examples of this increasingly popular application are:

- Picasa (Google) <<http://picasa.google.com>>
- iPhoto (Apple) <www.apple.com/iphoto>
- Photo Story (Microsoft) <<http://microsoft-photo-story.en.softonic.com>>.



ETHICAL CONSIDERATIONS AND RISKS

- Web tools enable anyone to upload or edit material on the Internet, and content may not always be correct or factually accurate. This underlines the importance of providing young learners with broad opportunities to develop the media skills necessary to evaluate sites and content for validity and bias.
- Educators should not take the simplistic line that any fake content is necessarily bad – it may be an extension of play-acting online and may also have educational value (e.g. fake profiles of famous figures from history on social networking sites).
- Web tools and apps offer boundless opportunity for users to publish information about themselves and others. They must nevertheless remain vigilant to the risks of self-disclosure and loss of privacy. The rule of thumb is not to publish anything not meant for the whole world to know about (see Fact sheet 8 on social networking).
- It takes time and effort to integrate technology in the learning process, so before embarking on this process make sure that the use of Web 2.0 and Web 3.0 tools will have meaningful consequences for your learners.
- All Web 2.0 tools are not born equal and do not have the same philosophy or business model. Beware that while a website like Wikipedia has a non-commercial, independent, volunteer-based, collaborative approach, many social networks, such as Facebook, have a commercial purpose.

4. <https://support.google.com/youtube/search?q=teachers+channel>

5. <http://computer.howstuffworks.com/internet/basics/video-sharing.htm>

6. www.jumpcut.com

7. <https://www.google.com/docs/about/>

8. <https://del.icio.us>

9. www.flickr.com/

- The content that you feed into Wikipedia will be used for the benefit of the community whereas the content that you feed into Facebook will be used, among other things, to show you personalised advertising.
- Rating products and services has become popular through Web 2.0/3.0 capabilities. However, critical judgment is more than ever necessary because, even on the most popular sites of this type, ratings are not necessarily reliable – paid recommendations are increasingly common.



IDEAS FOR CLASSROOM WORK

- **Internet usage:** the most popular online activity for 86% of Internet users is socialising, followed by getting information (around 50%) and career- and commerce-related activities (approximately 25%)¹⁰. Discuss Internet usage statistics with your pupils/children. How does their Internet usage compare with other young people in their country and other countries across the world, and with usage a decade ago? What are some of the impacts this could have?
- **Video:** students can make their own videos to share their views and opinions about a given topic more widely. Get your students to work in teams, prepare a storyboard and use their mobile phone to create the video. This will provide an opportunity to discuss topics such as copyright (see Fact sheet 14), getting the filmed/photographed person's consent (or their parent's permission in the case of minors) before uploading images to Internet, and so forth. They can share their video through your class or school website, or use a dedicated channel on YouTube¹¹ to reach millions of Internet users. Some schools are now using video to record lessons to enable those students who were absent to catch up on the lessons they have missed.
- **Wikis:** check out the wikis that are best adapted to your own educational setting (see further information), then set a collaborative piece of work for your students. You will be able to actively monitor the work of individual students and keep a record of all the changes that are made. Wikis provide ideal opportunities for students to work across schools and countries in true collaborative projects.
- **Social bookmarking:** set a specific research project and divide up the tasks to individual learners or groups. You can use a search engine to find a social bookmarking tool that suits your needs. Each group can use social bookmarks to compile a detailed set of relevant links. One advantage is that learners do not have to rely on accessing the same computer each time they want to continue with a piece of work as their favourites are available from any computer at any time.



FURTHER INFORMATION

- These two wikis could be used in educational settings: <http://mediawiki.com> and <http://www.pbworks.com>.
- Teachers in several hundred thousand schools in Europe today work collaboratively within a safe learning environment with classes in other countries through the European Commission's eTwinning network at www.etwinning.net/en/pub/index.htm.
- Safety information on the use of Web 2.0 tools at home and in school can be found at www.betterinternetforkids.eu/.
- Although YouTube Kids offers fewer functions than YouTube.com for watching and sharing videos, it functions within a safe environment adapted especially for younger children and offering guidelines for parent, teachers and carers: <https://kids.youtube.com/>.

10. <http://www.pewglobal.org/2015/03/19/2-online-activities-in-emerging-and-developing-nations/>.

11. www.youtube.com

- Information on Web 2.0 tools for use in classroom and free downloads can be found at <http://web.archive.org/web/20160413121845/http://www.solutionwatch.com/512/back-to-school-with-the-class-of-web-20-part-1/>.
- Useful Web 2.0 applications for elementary schools can be found at <http://web.archive.org/web/20150914224206/http://langwitches.org/blog/2007/12/22/best-web-20-applications-for-elementary-school/>.