



# Allowing Safe Access to YouTube in the Classroom

## ABSTRACT

*YouTube, which is owned by Google, is a video sharing website where users can upload and share videos and has been one of the biggest Internet success stories. An estimated 65,000 video clips are uploaded to the site every day and it is now the fourth most visited site on the Web. Many countries are using YouTube to improve engagement with citizens and have YouTube channels dedicated to Government speeches and news with many commercial media organisations using YouTube to distribute high quality video content, including the BBC, CNN, The History Channel, Russia Today.*

*Due to the fact that YouTube receives 20 hours of video content every minute making it impossible for Google to screen content as it is uploaded, the site has never been far from controversy over inappropriate or offensive content. Despite the issues around inappropriate content, the site now hosts a large and rapidly increasing number of high quality educationally relevant videos covering the entire curriculum, however schools have so far been reluctant to allow students and teachers open access to the site.*

*This white paper examines the risks and challenges of using YouTube in the classroom and discusses some of the latest solutions to allow schools to use YouTube safely in the classroom.*

## YOUTUBE – AN INTERNET PHENOMENON

YouTube is a video sharing website where users can upload and share videos and has been one of the biggest Internet success stories. Launched in 2005, the company was acquired by Google in 2009 for \$1.65 billion. An estimated 65,000 video clips are uploaded to the site every day and according to Nielsen Online<sup>1</sup>, YouTube was the fourth-most-popular Web brand in the US in 2009. Credit Suisse<sup>2</sup> estimates that 41% of all US video streams went through YouTube and the site saw 375 million unique viewers worldwide in 2009. Overall, the site is now the fourth most visited site<sup>3</sup> on the Web and is currently the eighth most popular website visited by 6-11 year olds.

YouTube is also increasingly being used in public life to improve engagement with citizens – many countries including the UK<sup>4</sup> and USA<sup>5</sup> have YouTube channels dedicated to Government speeches and news. (Note to <http://www.youtube.com/user/DowningSt> and <http://www.youtube.com/user/whitehouse>).

In addition, many commercial media organisations are using YouTube to distribute high quality video content, including the BBC, CNN, The History Channel, Russia Today. These companies clearly see YouTube as a convenient way to distribute and promote content and it's likely that more and more organisations will start to use YouTube as an additional distribution channel.

## HOW DOES YOUTUBE MAKE MONEY?

Google monetizes YouTube by serving up contextual advertising to users of the site. The adverts are placed throughout the site and embedded directly into the video clips and utilise the same algorithms used by Google's search engine to display the most relevant adverts based on the video being searched for or displayed. Advertisers or sponsors as Google likes to call them, pay Google a set amount each time an advert is clicked.

However, due to the very high overheads of running the site (i.e. bandwidth, file storage), most financial analysts estimate that as of the end of 2009, YouTube was still losing substantial amounts of money for Google. This is likely to mean that the company will continue to look for additional ways to increase revenues. At the end of 2009 the company started to host High Definition content and there has been a large amount of speculation that the company will start to offer Pay-Per-View movies and TV shows.

The reality and challenge for Google is that it is often the inappropriate, banal or downright silly video clips that attract the most viewers which in turn leads to higher pay-per-click revenues. Indeed, as a clip becomes popular, Google usually end up with a fiercely competitive price bidding war amongst advertisers.

## YOUTUBE AND INAPPROPRIATE CONTENT

While the vast majority of content on YouTube is inoffensive, there have been well documented incidents of extremely inappropriate content appearing on the site. These include the site being flooded with pornographic videos<sup>6</sup> in May 2009, Holocaust denial videos<sup>7</sup> and videos mocking the Hillsborough Disaster<sup>8</sup>, in which 96 football fans from Liverpool were crushed to death in 1989. In the last few years YouTube has also gained notoriety for hosting videos of happy-slapping, street violence, joy-riding and the site has been used to promote pupil and teacher bullying.

<sup>1</sup> [http://enus.nielsen.com/etc/medialib/nielsen\\_dotcom/en\\_us/documents/pdf/press\\_releases/2009/december.Par.23739.File.dat/Nielsen%20Top%20Tens%202009%20final.pdf](http://enus.nielsen.com/etc/medialib/nielsen_dotcom/en_us/documents/pdf/press_releases/2009/december.Par.23739.File.dat/Nielsen%20Top%20Tens%202009%20final.pdf)

<sup>2</sup> [http://www.multichannel.com/article/191223-YouTube\\_May\\_Lose\\_470\\_Million\\_In\\_2009\\_Analysts.php](http://www.multichannel.com/article/191223-YouTube_May_Lose_470_Million_In_2009_Analysts.php)

<sup>3</sup> <http://www.alexa.com/siteinfo/youtube.com>

<sup>4</sup> <http://www.youtube.com/user/whitehouse>

<sup>5</sup> <http://www.youtube.com/user/DowningSt>

<sup>6</sup> [www.news.bbc.co.uk/1/hi/uk/8061979.stm](http://www.news.bbc.co.uk/1/hi/uk/8061979.stm)

<sup>7</sup> <http://www.haaretz.com/hasen/spages/898004.html>

<sup>8</sup> [http://icliverpool.icnetwork.co.uk/0100news/0100regionalnews/tm\\_headline=fury-as-youtube-carries-sick-hillsboro-video-insult%26method=full%26objectid=18729523%26page=1%26siteid=50061-name\\_page.html](http://icliverpool.icnetwork.co.uk/0100news/0100regionalnews/tm_headline=fury-as-youtube-carries-sick-hillsboro-video-insult%26method=full%26objectid=18729523%26page=1%26siteid=50061-name_page.html)

YouTube's terms of service<sup>9</sup> prohibit the uploading of videos which are defamatory, pornographic, violate copyright or encourage criminal conduct. However, YouTube does not check every video before it goes online. In July 2008 the UK Government's Culture and Media Committee stated that it was "unimpressed" with YouTube's system for policing its videos, and stated that "Proactive review of content should be standard practice for sites hosting user generated content."<sup>10</sup>

## **USER SUBMITTED COMMENTS**

Registered users of the site are able to post comments on video clips. Unfortunately, the site would appear to attract a large number of users who have extreme political, sexual or religious views and seem to be extremely well versed in using crude, profane or offensive language.

## **HOW DOES YOUTUBE POLICE THE SITE?**

YouTube relies on its users to flag the content of videos or comments as inappropriate, and a YouTube employee will view a flagged video or comment to determine whether it violates the site's terms of service.

Google state that:

"For YouTube we have strict rules on what's allowed, and a system that enables anyone who sees inappropriate content to report it to our 24/7 review team and have it dealt with promptly.

We educate our community on the rules and include a direct link from every YouTube page to make this process as easy as possible for our users.

Given the volume of content uploaded on our site, we think this is by far the most effective way to make sure that the tiny minority of videos that break the rules come down quickly."

This is the dichotomy for Google – they have to ensure that the 20 hours of content uploaded every minute of every day is appropriate and does not breach their terms of services whilst at the same time recognising that the more salacious the video the more hits it will receive and so drive revenues.

## **AGE VERIFICATION OF CONTENT**

Users do not need to be registered with YouTube to watch videos but need to be registered to upload videos. Videos that are considered to contain potentially offensive content are available only to registered users over the age of 18, but since there is no verification of a user's actual age it is relatively easy and simple for users to access over 18 material.

## **YOUTUBE IN EDUCATION**

As previously mentioned, YouTube is the eighth most popular website visited by 6-11 year olds and despite the issues around inappropriate content, the site now hosts a large and rapidly increasing number of high quality educationally relevant videos covering the entire curriculum.

For example, YouTube contains original footage of many of the most famous speeches – students could view inaugural speeches by President Kennedy<sup>11</sup> and President Obama<sup>12</sup> and then write a report on the differences and similarities between them.

<sup>9</sup> <http://www.youtube.com/t/terms>

<sup>10</sup> <http://tinyurl.com/ybol2ap>

<sup>11</sup> <http://www.youtube.com/watch?v=BLmiOEK59n8>

<sup>12</sup> <http://www.youtube.com/watch?v=VjnygQ02aW4>

For science subjects, students can view experiments that cannot be held in the classroom due to health and safety concerns or limited equipment.

And many of the world's leading universities<sup>13</sup> are now posting lectures online providing yet another rich source of learning.

However, schools and local authorities have so far been reluctant to allow access to YouTube in the classroom largely due to the risk of students accessing inappropriate content or being distracted by other content on the site. This lack of access has been a source of frustration for many teachers:

Karen Graham, Headteacher at St. Catherine's CE Primary School in the UK states:

"I'd love to be able to use YouTube safely in our classrooms. It has such great educational content that my teachers are keen to use in lessons, however, not everything on YouTube is safe for children to view in a classroom environment therefore the school has to block it. If my staff and my pupils could use YouTube safely it would reinforce lessons and promote independent learning."

Schools who have been somewhat more liberal in their approach to opening up access to YouTube have used the site to allow students to upload their own homework assignment videos, and in addition have used YouTube to help improve engagement with parents, an important part of the latest OFSTED requirements.

## THE CHALLENGE

Due to the complex way that YouTube media is stored and disseminated, filtering YouTube content is virtually impossible using traditional Web content filters and until now ICT managers have only been able to allow or block access to the entire YouTube site. If a school decides to allow access to YouTube then they cannot allow access to just specific video clips – it's all or nothing.

Having open access to YouTube poses a significant number of risks and challenges for schools or colleges:

- Schools who allow open access to YouTube could breach their duty-of-care responsibilities if students either inadvertently or deliberately view or download inappropriate content.
- E-safety guidelines prohibit schools from giving access to sites where students could view inappropriate content.
- Schools and colleges who provide open access will usually find that the vast majority of network bandwidth is consumed by students viewing YouTube, which has a significant impact on network performance.
- While it is possible to download video clips or have teachers show media clips to students, schools have been reluctant to sanction this as there is little age verification of content on YouTube and no audit trail will exist of content being approved.

Many teachers have resorted to embedding YouTube clips into word documents and showing this in the classroom. Whilst this minimises the risk of students viewing inappropriate content or comments, it still requires access directly to YouTube. Other teachers use downloading tools to extract the MPEG file from YouTube and then play this directly or provide access for students. This eliminates the risks but unfortunately this breaches Google's terms of service, which prohibits the "caching" of content. This approach also means that teachers have to assess and determine if content is appropriate and suitable for the age of the students.

<sup>13</sup> <http://www.youtube.com/user/YaleUniversity>, <http://www.youtube.com/user/mit>, <http://www.youtube.com/user/ucla>

## THE BLOXX MEDIA FILTER

The Bloxx Media Filter is a secure Web appliance that enables schools and students to obtain all of the educational benefits of online social media content, such as YouTube, in a safe and secure online environment.

The Bloxx Media Filter lets teachers quickly identify curriculum related YouTube video clips and with just a few clicks tag, assign these to a subject area and age range, and submit the clips for approval. Once approved, students can easily search and view clips based on their age, which are streamed directly from the YouTube site through the appliance and onto classroom PCs, without related video clips, contextual advertising or user submitted comments being displayed.

The appliance eliminates the need for IT managers to allow students access to the entire YouTube site, which could allow students to inadvertently view inappropriate content. Since only approved video clips can be viewed, this eliminates the risk of students viewing inappropriate material or comments.

The Bloxx Media Filter uses Active Stream Filtering to extract the required URL and in conjunction with the submission and approval processes, ensures that only approved media content can be viewed by users.

Bolton Council will be the first Local Education Authority in the UK to deploy the Bloxx Media Filter. This will help schools in its area take advantage of YouTube media content in a secure online environment, improve local collaborative learning and resource sharing and give autonomy to teachers to help them enrich learning experiences through the use of approved online media.

“We had a real dilemma on our hands: our schools were demanding access to YouTube, but due to the inappropriate content and user submitted comments which can sometimes be found on the site, it was impossible to allow access in a safe and controlled way,” said Phil Brockbank, Technical Consultant at Bolton Council. “The Bloxx Media Filter will allow us to empower teachers to create and use a free online library of rich learning resources, students will be happier as lessons will be more engaging and enjoyable and the council will be able to deliver on its commitment to keeping our children and young people safer online.”

## KEY BENEFITS

- Allows schools to offer pupils safe access to YouTube for school room or independent learning without the dangers that are inherent in allowing open access to the video service.
- Allows easy searching and sharing of YouTube videos, which requires little administrative effort from teachers or IT managers.
- Through time Media Filter will grow into a valuable, age verified and approved library of educational content.
- Helps schools easily meet e-safety guidelines aligned with the UK Government’s recently announced ‘Click Clever, Click Safe’ campaign.

**ABOUT BLOXX**

Bloxx is a privately held company with offices in the U.S., U.K., The Netherlands, and Australia and offers web filtering appliance-based solutions for medium and large organizations in both the business and public sectors. In 2007, 2008 and 2009 it was recognized by Deloitte as one of the U.K.'s Top 50 Fastest Growing Technology Companies in its prestigious "Fast 50." For more information please visit: [www.bloxx.com](http://www.bloxx.com).

**To learn more about Bloxx Media and Web Filtering, book in for an online demonstration at [bloxx.com/demo](http://bloxx.com/demo), call +44 (0)1506 426 976 or email [info@bloxx.com](mailto:info@bloxx.com).**



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