

Vision on online education

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01 Video applications for education

Where once the use of a powerpoint or slide show was seen as ultra-modern, video is now an indispensable learning tool for colleges and universities.

Many educational institutions have boosted the curriculum with knowledge clips¹, web lectures or webcasts², video recordings of the lectures, flipping the class room³, MOOC's⁴ and other educational video applications within blended learning⁵.

Young people have grown up with mobile video technology and are fully aware they carry around a huge amount of information in their pocket. Today's student once saw their primary school teacher fumbling with the smart board and a few years later swatted for exam week with the help of the first lessons on YouTube. The "how to" videos on the video platform YouTube are extremely popular: 86% of YouTube users regularly search for these types of videos as a source of information. For this generation, knowledge comes as much from videos as it does from books.

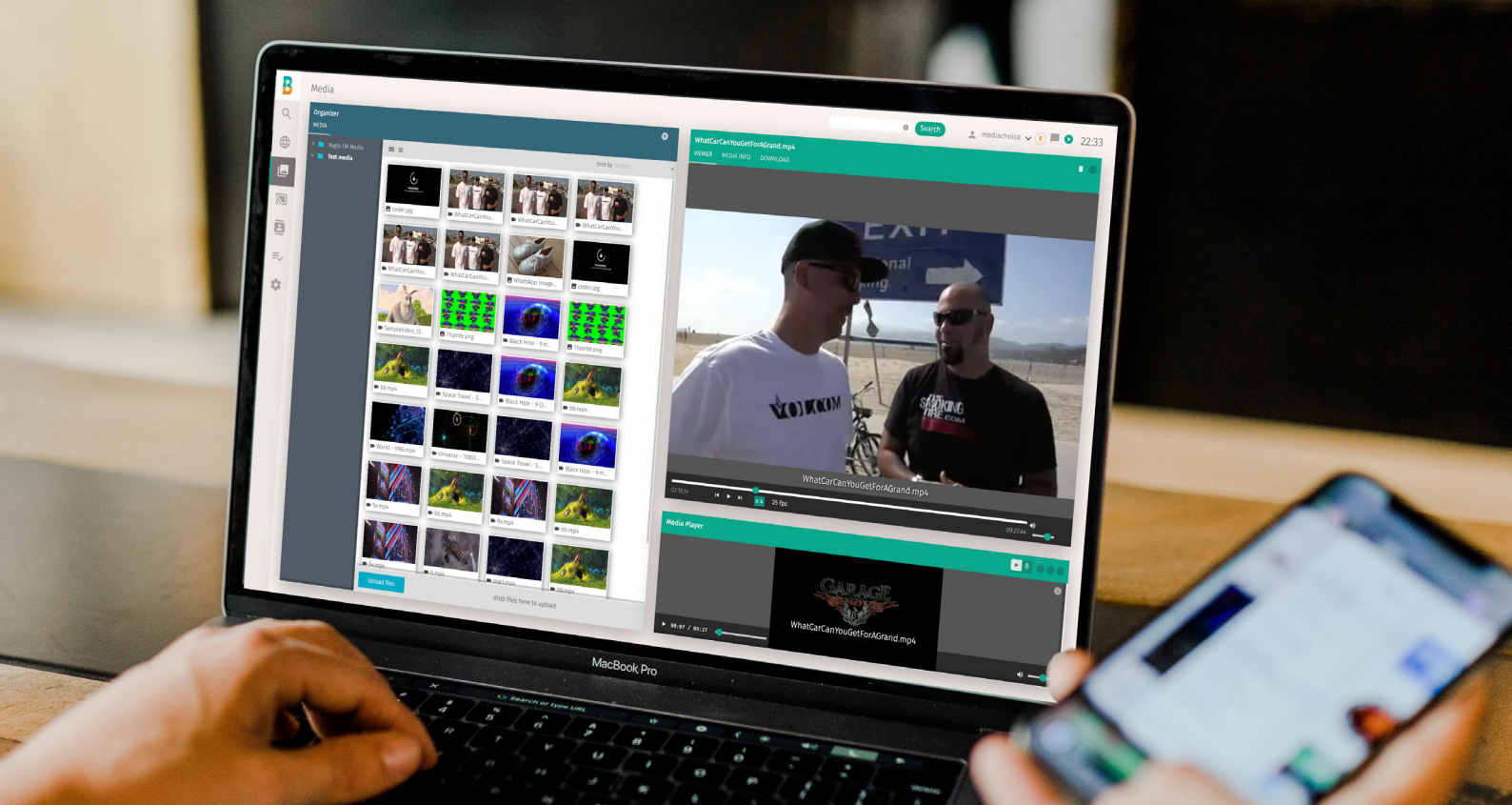
The importance of recording and distribution of educational videos has also increased. Surveys and focus groups at various universities show that students use the online lectures in addition to the regular face-to-face lectures when preparing for exams. Video has an important instructive and motivational significance for students and gives students more control over their learning process (lessons are always available, feedback can also be requested online), supports them in improving their study skills (review, completing notes, exam preparation), and allows them to make up for

missed lectures. The use of video in teaching materials leads to high student satisfaction and has a positive effect on the study results. Partly thanks to the use of web lectures and knowledge clips, training courses have been made more flexible and accessible.

Educational institutions reach a wider audience via video than only their students. The use of video also makes knowledge easier to share. With the international breakthrough of the "Massive Open Online Courses" (MOOC) - where complete courses are offered free to a worldwide audience - learning and information is made accessible to everyone. As well as being a marketing tool, many universities offer MOOCs to enhance their international reputation with the help of portals such as Coursera. The commercial variant of MOOCs are the "Small Private Online Courses" (SPOC), which can be taken for a fee and are usually aimed at specific target groups. This makes new revenue and business models possible for online education.

Open and online education for an international market is one of the most important developments in recent years and can have a far-reaching impact on the scope and position of institutions.

1. The knowledge clip is a "how do I repair a bicycle tyre" tutorial in which a sub-topic is covered by a teacher within minutes.
2. Live recording of a lesson in, for example, the lecture hall (a live stream is a "web cast").
3. Flipping the class room", means students have first exposure to new material outside the class and they use class time to do the harder work of assimilating that knowledge.
4. MOOCs are Massive Open Online Courses, free teaching materials offered to the global audience through websites such as coursera.org
5. A combination of learning via electronic and online media and traditional face-to-face teaching



02 Developments in education

Fifteen years ago, bankruptcies of large department store chains, hospitals and banks seemed impossible. Now, society is used to the closure of institutions that have been part of a country's cultural heritage.

Strategic failures and inadequate reactions to global developments and trends are the cause of the demise of lumbering giants. The collapse of universities, therefore, is also a very real possibility.

Technology and social developments lead to a fast-changing world in which different sectors need to continually reinvent themselves and their role. The “new kids on the block” are throwing away old conventions, making smart use of new technologies and claiming their place in modern life.

The impact of global trends can also be felt in education. With the advent of MOOC's, SPOC's, corporate universities and thematically designed research and education, the first signs of disruption are already visible.

The vast quantity of such developments, and the rapid pace of change, are forcing universities to include digitisation of education in their strategic planning.

Universities will have to experiment, invest in innovation, make choices and be open to collaboration with the business community. Ensuring agility and flexibility at all levels of the institution is crucial to remain a prominent part of the education chain.

To prepare the institution for perhaps the most experimental phase in its history, an appropriate strategy is necessary. Online education is only one component of a larger digitisation battle, since today's society is already transforming to a digitally organised society.

03 Video in education

Video is a dominant part of the digitisation of education and an important tool in the provision of quality education. Visual material with texts has a positive effect on the learning process, especially for students who have less knowledge of the subject. Complex concepts can be explained effectively on screen and fragments played as often as necessary to understand the material. As a result, no extra time has to be spent on basic knowledge during face-to-face education and the group of students start at a more equal, higher level.

The lesson can then be spent on highly interactive education in which the concepts are applied instead of explained (“flipping the classroom”). By combining video with questions and feedback, students are encouraged to actively deal with the material and the learning effect is greater.

An educational institution that wants to use video material in the learning process does not have to make a Netflix production. However, a lacklustre video of a badly lit teacher with poor audio will not keep the student engaged. Quality is not only in the technology, but also in strong content and the ability to convey the message via a screen. Like creating a brochure is more than simply writing text in a word processor, the production of video requires good cooperation in teams of didactics, teachers and designers.

Outsourcing the production of videos to external production companies will involve high costs, limiting the number of videos that can be made.

Teachers will therefore have to be able to produce video themselves using low-threshold production systems.

Producing professional video in-house makes the educational institution a kind of broadcaster, with one big difference: broadcasting staff, like journalists are trained in creating professional video productions, whilst teachers in an educational institution are not. Most video systems come from the media world and are made for technicians and often complicated to operate. The introduction of those systems in education therefore often results in disappointments: teachers are unable to deal with the technology and give up. The production of lesson videos then stagnates due to the complicated technique available. It is therefore important to approach the production process in an educational institution differently than in a traditional media company.



“In 15 years from now, half of US universities may be in bankruptcy, including the state schools.”

Clayton Christensen, Harvard Business Schools



04 Technical possibilities

The greatly increased technical possibilities in recent years, such as broadband mobile internet and the availability of mobile equipment with simple video recording, have boosted new developments in the field of video.

On the side of the recipient (the students and the wider public), the mobile phone plays a major role as a video player and information carrier. High quality video is available anytime, any place. Spreading textual lesson components is easy, the video components require a little more knowledge and skill.

Teachers have to make a transition from producing text and Powerpoint presentations to producing video themselves.

The desire to make that change will increase if facilities are easy to use, accessible and widely available.

Teachers must be able to make videos when it suits them, it must not be complicated and smart technology must guarantee quality. The range of videos can then quickly grow into a generous educational video library, the digital capital of the educational institution.

05 The importance of metadata and content right management

Not only is the production of the material a challenge, but the opening up of the lessons also requires a different approach than with traditional teaching materials. If video lessons are part of the capital of an educational institution then it makes sense to handle them carefully.

At many educational institutions, video is often offered from a Learn Management System (LMS) and is therefore stored fragmented, linked to a specific application. There is often no centralised video catalog available, so there is no overview. Typically, each functional teaching application has its own video storage. Certainly, at institutions with a decentralised organisation and a high degree of independence of the various faculties or sectors, it is important to store and manage the video at one point, independent of the functional use in an LMS system. It is not convenient to search in various LMS systems to find a video. This requires a system that stands between all subsystems, connects them, ensures the contribution and distribution of video in the right formats and can add the right metadata.

It is not enough to create folders on a network containing thousands of uncategorised videos without metadata. Without a metadata structure, teachers and students will never find the right video lesson. Metadata is also crucial when compiling teaching materials based on levels, for example, or when compiling series with a specific theme.

Teachers often use images from third parties in presentations. Rights may rest on this material. It is therefore important to keep a close eye on who owns the images. Part of a video platform must therefore also include rights management. Every video must be labeled so that the content cannot be used improperly.

This applies both for material that the university makes itself and does not want to put online for free, as well as to the use of third-party material. Unlicensed usage can lead to hefty claims and a negative public image.

DRM, Digital Rights Management, is an important part of a video portal. A good platform has a simple rights management system with which improper use can be blocked, but also extensive protection of the content through, for example, the integration with Google's Widevine or other DRM systems.

Conclusion

If an educational institution is to keep pace with developments, a well-thought-out online strategy and a professional operating video service with an accompanying distribution platform are a prerequisite. Within the organisation, ambassadors or role models must showcase the possibilities of the accessible facilities. A professional online offer can contribute to satisfaction within the institution, a modern image and a healthy business model.

06 Video applications for education

Finally, an overview of some possible applications in education:

DIY Booth

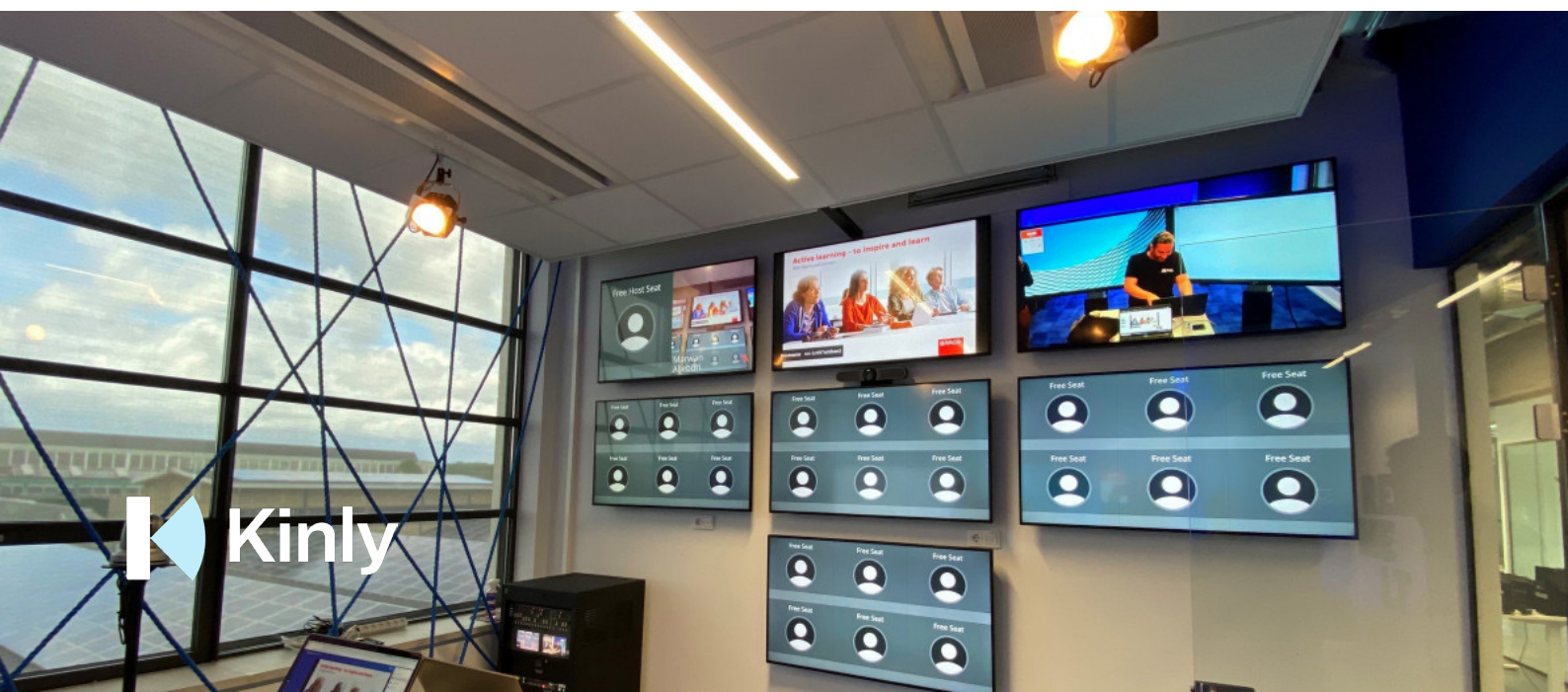
An accessible solution is the DIY Booth, or the Do-It-Yourself Booth. In this booth, teachers can record lecture clips that have been pre-prepared in a production system linked to the video platform. Accessibility is achieved by using terminology the teachers can understand. A technician may ask you in what bitrate and aspect ratio a video should be, a teacher may well not understand these technical terms or the consequences of bad choices therein. The question to be asked is “should this video go to YouTube?” The fact that processes subsequently run in the background to transcode the video format and send the correct metadata maybe interesting for the technician, but not important for the teacher.

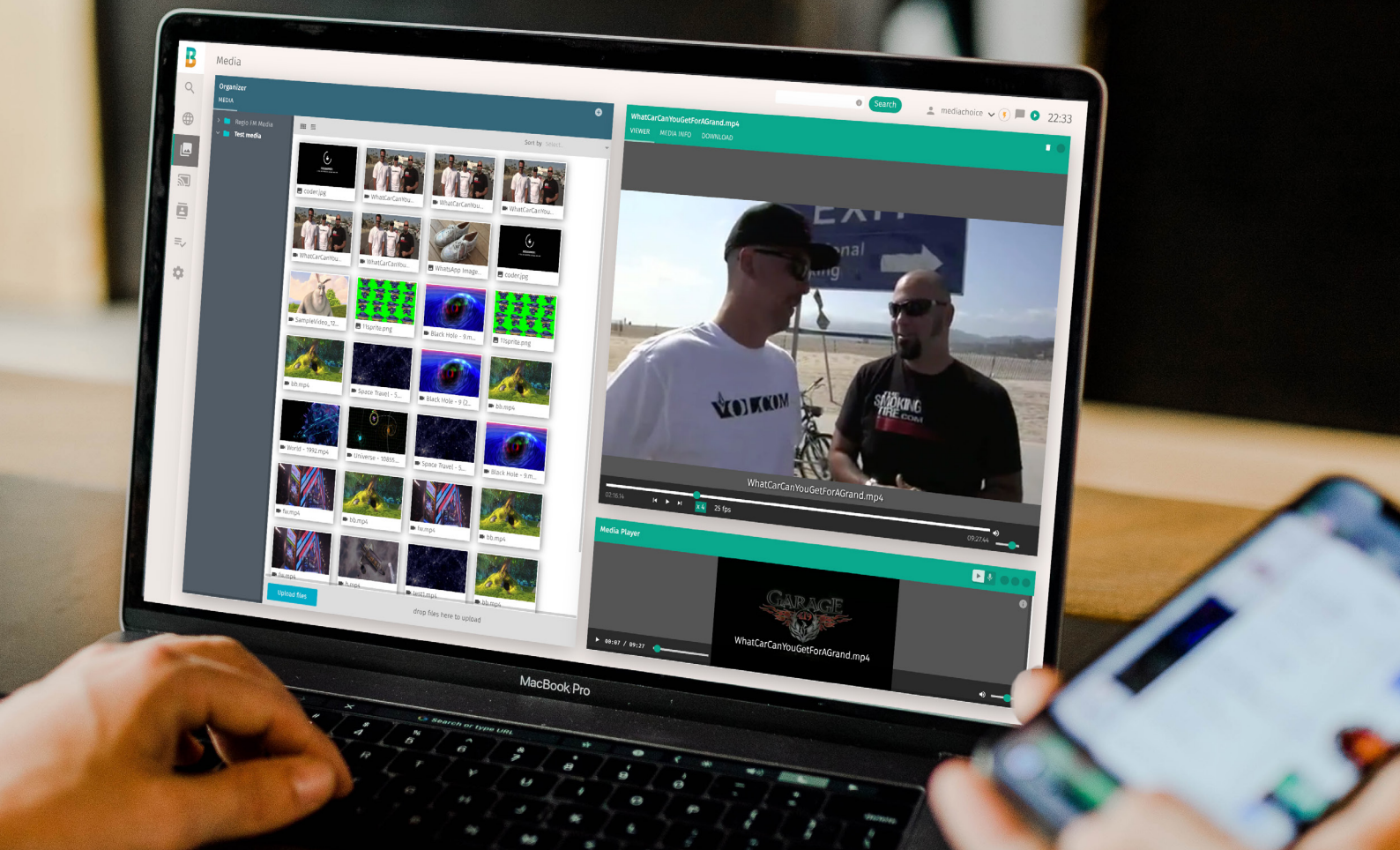
Secure video

Some scientific data requires extra protection. For example, privacy sensitive video interviews. These videos need the highest level of security in the form of so-called encryption. The film industry works with Digital Rights Management, which protects expensive Hollywood productions. Users of these techniques include Netflix, Disney and Sony. By setting up DRM, the security level of the platform goes from the “key box” level to the “heavily guarded bank vault” level.

Live video is a data stream

Another development is the implementation of so-called all-IP video by directly converting image sources, such as cameras, into data streams; recording lectures with a camera that already converts the video images in the camera into a data stream. A big advantage here is that this data stream is transported via the regular IT networks to the data centre, where the video is recorded on computers. This provides considerable cost savings because no expensive dedicated hardware has to be purchased, the service runs on “normal” office servers, and no separate video network has to be created using expensive video cabling.





07 Key points

What can a professional video portal contribute?

- Makes various forms of academic education more flexible by offering course material any place, any time.
- Integrates the workflows from concept to recording in the video production process.
- Improves the efficiency and quality of under graduate and post graduate education.
- Develops blended and post-initial education.
- Increases the ease of access to video knowledge for students, teachers and the outside world.
- Introduces mix-metadata models.
- Makes “rich” online content deployable and more efficient in education.
- Lowers threshold of making videos for teachers using facilities like the DIY booth.
- Saves costs through an all-IP strategy, in which all video services are converted to data.
- Strengthens the international image of the university by increasing expertise in the field of knowledge dissemination.
- Increases appeal for the summer, winter, part-time and full-time programmes, events and symposia.
- Simplifies live streaming, which contributes to a professional national and international image.
- Promotes internal evaluation and feedback with the help of own videos and online content.
- Reaches the life-long learners target group.

About Kinly

At Kinly, we think working together is the most exciting thing in the world. Our vision is to engage people in a world of possibilities.

We are a team of passionate, reliable and helpful People who provides secure and flexible solutions for video conferencing and audio-visual integration, including a range of services for visual collaboration that makes it easier to work better together.

Our vision is to engage people in a world of possibilities. Our brand promise is Working together. Everywhere. Our role is to provide a seamless and reliable experience that enables people to work together, in different spaces and places.