Using Multimedia in Academia

Leiden University

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Introduction

In the past three years, University education has needed to radically adapt to new global challenges, namely the COVID-19 pandemic. During this time, most courses had to transition to remote education. University instructors had to convert their materials to make them suitable for an entirely online audience. These changes, while challenging, have started conversations on using new methods and technologies for learning. For instance, Leiden University and the Future Learning Office (FLO) successfully invested in innovative methods such as to blend in-person and online teaching in the [Hybrid Rooms](#) in the Wijnhaven campus. In several courses, instructors have designed new assignments that ask students to use audiovisual technologies to demonstrate their knowledge and communicate with relevant audiences. The industry of podcasting and amateur filmmaking has greatly expanded owing to more people working from home. In the professional world, businesses, research institutions, and news agencies alike are keen to find new ways to engage their current audience or expand their potential consumer base, often creating their own original multimedia content. Students with skills in these multimedia formats, therefore, are more desirable graduates with more marketable skills.

In this report, I will detail what instructors have learned in using multimedia for academic assignments or accompanying materials and will provide some best practices for using these mediums to their full potential.

Using Podcasts as Assessments

In the conducted interviews, most used podcasts and multimedia as a form of assessment for their different courses. The format and style requirements for these submissions differed quite extensively. Their experiences will be detailed below.

Podcasts and films as a full-feature artefact

The Bachelor of Security Studies (BaSS) makes extensive use of media tools and technologies in both educational material and as a form of assessment. In the final academic block of Year 1, BaSS students choose a multimedia artefact that they will create on a certain security-related theme, called Integrated Project 1. Of these artefacts, there are two which will be focused on: podcasting and filmmaking. This report will disclose the organisational lessons that the Institute of Security and Global Affairs (ISGA) has learned in teaching this course for over five years.

Students in Integrated Project 1 work as part of the same team throughout the course. Most of the assignments are group assessments (excluding the systematic literature review), with slight adjustments for each artefact to make it more appropriate to the design process. The systematic literature review serves as the academic research basis for the rest of the group work and final product. By completing these group assignments, groups contribute to the final product as well. For an instructor, having groups complete assignments together teaches not only valuable project management and teamwork skills, but also saves time in grading. This must also be

balanced with methods to compensate for freeriders[1], as these artefacts require all group members to be contributing to be of sufficient quality. Methods such as encouraging the maintenance of logbooks tracking the work of each group member and aiming to construct groups of three-to-four members to evenly spread tasks while having enough workload for each group member.

Although the students are given an overarching theme in Integrated Project 1, they are encouraged to think creatively and propose a subject they are genuinely interested in. We offer guidance in terms of focus and representation, but students are given a broad remit of subjects they could cover. Most of the labs are dedicated to teaching them practical skills necessary for creating the artefact and teaching the discipline of design science. These labs have a heavy focus on student participation, contributions, and creative output. Labs are great environments to supervise students using media production tools and capturing relevant data. To maximise the participation of students, instructors in Integrated Project 1 request computer rooms for their labs and exclusively use free-and-shareware that is easily downloadable on their personal laptops. This software includes Audacity and Reaper for the podcast artefact, and Shotcut for film.

We make regular use of external guest speakers and lecturers to demonstrate the value of these skills in students' future workplaces. Guest lecturers have included a podcast producer from Pineapple Street Studios, a media officer from the International Crisis Group, and ethnographic film company Ethnovision. Showing students the variety of niches available to them in the field of security for media production skills demonstrates the value for money that this programme can provide them. Having a breadth of disciplines and skills sets our graduates out from more classical political science graduates. The podcast team allows students to publish their material on Spotify, providing a public link to share with potential employers and interested audiences. The film team has been considering offering a similar service by uploading to a public video site such as YouTube, but there are several consent and copyright questions to consider.

The film artefact places strong emphasis on quality and professional standards of practice to teach students on how to make a cohesive and exciting final product. Alongside design science, they hold dedicated labs to film theory, shooting and blocking of scenes, visual storytelling, foley, colour correction, and editing.

In assessing these submissions, both the podcast and film team have noted that students are often highly self-motivated to create a high quality final product. We have found that students are much more likely to incorporate techniques and suggestions from lab content than when compared to conventional assignments. Especially in the film artefact, several filming, framing, and editing techniques were identifiable in the final production.

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[1] "Freeriding" is used to describe group members that benefit from other members' work without contributing their equitable share.
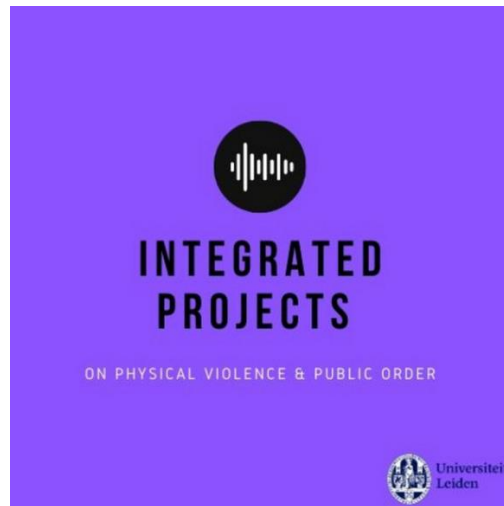
The podcast team has maintained a repository of student podcasts on Spotify

Podcasts as a short-form pitch

Podcasts can be used in lieu of an elevator pitch conventionally given in class. One interviewed instructor informed us of their experience in this format. For their course, they required students to create a 10 minute podcast designed for a "minister to listen to on the train", pitching their research as relevant and necessary to receive funding. The assignment is designed for pairs, but has no prescribed format. In prior years, the instructor required the pairs to submit a script to show equal distribution of workload, yet experimented with a freer format this year. The results of this were purportedly positive. They noted that students are self-motivated to create a product of quality, showing distinct regard for narrative flow and production quality despite there being no emphasis on these skills in the course. Moreover, some students employed genuinely innovative storytelling formats to differentiate themselves from scripted productions, one of the examples highlighted was a dialogue between the podcasters and the minister. Evaluations and thoughts on this assignment have been generally well-received in the three years it has been used as a form of assessment.

Unlike Integrated Project 1, the students were not taught skills in audio recording and production, but were provided with multiple resources and tutorials on how to use free software such as Audacity. In the feedback, students would mention that they would appreciate some time in class spent on audio production.

Podcasts and videos instead of papers

Finally, instructors have used multimedia products as full replacements for short-to-medium-length papers. In these assignments, they expect students to display effective paraphrasing and analytical skills to fit the format and audience. In the War & Peace minor, instructors ask students to create a 20 minute podcast that discusses the events of a civil war that occurred in the last 30 years, for an audience of 16-to-18 year olds. Here, the instructor expects students to engage the audience, keeping tone appropriate for the audience, meaning that they break down

and simplify esoteric academic jargon for the younger audience to understand. Similarly, the instructors value storytelling and narrative skills to maintain the audience attention. In detailing these events, instructors still expect students to cite the papers they are using for their information, and use these findings to apply to current events. This assignment is based in political science synthesized with communication studies and marketing, showing the interdisciplinary potential of podcasting.

ISGA also makes use of video assignments as paper replacements in the master of Crisis and Security Management (CSM). In teams, the students are expected to create a short video clip on an issue related to radicalisation that aims to be informative, but also narratively appealing to an invested audience. Once completed, the teams upload the videos to Pitch2Peer to allow for other teams to watch and provide feedback. Then, the best five video clips would be voted on and screened in the final lecture. The instructor informed us that the peer reviewing process incentivised students to improve their production quality, despite being given no instructions on how they should do it. This shows the influential effect that multimedia peer reviews can have on students' passion on preparing for an assignment. On the other hand, the instructor regularly mentioned the odd interface and unstable nature of Pitch2Peer that made it difficult to manage submissions. Fortunately, the support team for Pitch2Peer are very responsive and can provide support where needed.

The entire course is set up mainly around group work. The individual assignment included in the course serves as the academic framework for the entirety of the group work.

Using Multimedia for Supplementary Materials

Instructors for courses in the Faculty of Governance and Global Affairs have used podcasts as a form of replacing, or complementing, required readings. Of those interviewed, instructors have regularly assigned published podcasts from external organisations. One interviewee, however, said that they would record and publish self-made podcasts for the students to listen to every week. The format of this podcast would be either an interview of each other or "casual conversation" between the instructor and another professor. They would discuss an issue that appeared in the news recently, or a historical case that was of interest to them, and intentionally apply both theories and concepts that students would encounter in that week's reading list. The goal of these podcasts was to demonstrate how these concepts are flexible and relevant in better understanding current affairs, as well as to provide an ideal example on how arguments should be structured.

There were two main advantages of these self-made podcasts highlighted by the instructor: high informational density but clarity in communication, and provides diversity in teaching materials. Podcasts provide a focused and condensed format for selected and edited information. This dialogue involves experts in their field that are able to pull from an internalised library of academic works to operationalise in the recordings. They pull from both

the prescribed readings and additional resources to provide consistently relevant insights on the topic being discussed. Complementing this is the edited and relatively short length these podcasts would be recorded for (around 30 minutes per episode). The combined effect of this was that podcasts were dense in information, but kept short and consistently relevant to the topic of discussion. Unlike conventional readings that have extensive detailing in their literature reviews, method choice justifications, findings and limitations, the students are less likely to lose interest in digesting the substantive content. Moreover, listening to a podcast allows students to complete other tasks in their lives, or enjoy a calming activity, whilst preparing for classes. Students appreciate these additional opportunities to learn alongside conventional resources.

In asking about the limitations of self-made podcasts, the interviewee stressed how productivity 'crunch' heavily impacts the time they had available for preparing the podcast. Recordings require the two participants to be available for a set period of time to talk, either in person or online. This can be very difficult to organise when the two are on different schedules. Moreover, this difficulty is compounded upon by an increased number of participants. Synchronising schedules is a challenging task and cancellations can be frequent. Recordings should be completed with sufficient time in advance, during a lull period, to guarantee everyone is available. The downside of this is that podcasts lose their ability to comment on contemporary events. Instructors, thus, ought to consider what their intentions are for self-made podcasts. If they wish to use podcasts as a means to apply learned theories or concepts to chosen issues, then the choice of topics will be limited and may require a (re)introduction to the audience.

For Integrated Project 1, we assign an episode of the podcast series "Catch & Kill" every week for the students to listen to. We ask the students questions relating to the content of the episode, the themes employed, the production features (music, sound effects, use of interviews etc.), and their evaluation of the episode's purpose in the greater narrative. The contents of this podcast is not relevant specifically to the course, but it represents a seminal example of communicating a complex story to an unknowing but engaged audience.

Instructing on Production and Assessing Quality

In designing multimedia assignments, a major consideration should be whether instructors should teach basic production and editing skills, or to provide resources for the students to read through. Additionally, can encouraging students to read these resources with a dedicated rubric component that rewards quality be considered sufficient? There are several considerations to making this its own component in these assessments and a flow chart of our best practices:

1. *Mediacenter for students*

FLO offers a dedicated mediacenter in room 4.64 for instructors and students to reserve. This room has the following equipment available to use:

- RODEcaster Pro
- 4 * RODE NT-2A microphones
- Logitech webcam for interviews
- Lenovo Thinkcentre PC
- Digital Analogue Converter

There are instructions available for how students can use this equipment with minimal supervision. We encourage students to purchase their own (minimum speed **VI**) microSD cards, more budget cards cannot be used for live audio recordings, or to bring their own laptops and install a free Digital Audio Workstation (DAW) such as Audacity. This can help equalise disparities in audio equipment and does not privilege those that can afford high quality equipment personally.

Despite this lowering barrier of entry, instructors should still be cautious when considering grading audio quality and production values. The Mediacenter is often used by multiple courses and institutions at once, and reservation slots can fill up quickly. Moreover, group assignments limit the available timeslots where groups can come together to record. There is a potential risk that students may not be able to take advantage of the Mediacenter during the creation of their assignment due to full reservation slots and limited time to work together.

2. *Allow students to borrow recording and video equipment*

A larger investment that allows for more control over scheduling would be to purchase video and audio equipment for the faculty to use in this course. Should this not be financially feasible, partnering with an institute that has this equipment may also be possible. For Integrated Project 1, ISGA has allowed students to make use of DSLRs and personal interview microphones to conduct recordings in the field. Students have responded to this initiative positively in the evaluations, noting that having DSLRs allowed them to capture more light and more detailed shots when compared to their smartphone cameras. However, the students also reported difficulties in using the interview microphones, claiming they were not intuitive to use. As such, several students had to rely on their phones recording the same interviews. It is recommended

to provide students with sufficient documentation via a hyperlink or physical manuals on how to use the equipment.

For Integrated Project 1, we had the following equipment available for students to use:

- 2 * Canon DSLR
- 2 * medium shot lens
- 2 * zoom lens
- 2 * RODE boom microphone attachment
- 2 * RODE lapel microphone
- 2 * Zoom H4N Pro microphone

Important: if considering buying your own equipment or using the equipment of another faculty, it is important to inform the management of the building about your wish to loan out the equipment. You will need to know if the equipment can be covered for damages under the University's insurance policy. For taking the equipment outside of the campus, we would recommend you require the students to sign a liability agreement confirming the user has third party liability insurance (*aansprakelijkheidsverzekering*).

Student Liability Form: IP1 Equipment

By signing this form, this student _____

acknowledges that they will be borrowing items (as listed below) from

the Leiden University Bachelor of Security Studies programme for the

following time period: from _____ to _____ (___ days).

During this timeframe, the student is responsible for handling the

equipment appropriately. Therefore, **it is required that the student**

confirms they are insured for third-party liability

(***aansprakelijkheidsverzekering***). By signing this form, the student

agrees that they are insured and will be held accountable and liable for

any damages to the equipment whilst in their care (i.e. during the

timeframe as specified above, or when students deviate from this).

Signed by: Date:

Student –

Tutor –

List of equipment/items on loan:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Above: an example of a liability form. Available to download here.

3. Suggest accessible solutions with affordable technology and combine with recording tips

Where the loaning of equipment or use of the Mediacenter is not possible, we recommend that instructors provide students with guidance on how to ensure the recording is of a consistent quality. Below are some recommendations that require common household items.

- *Reduce echo in the recording*

Above: acoustic foam is often used in recording studios to reduce echoes.

Echo is a common and noticeable issue in amateur recordings. It can easily distract the listener from the spoken information, making it sound less like a cohesive production. This is often caused by the positioning of the microphone in the room and the room's position. It is important, in any recording of sound, to advise students of these techniques to reduce echo.

There are many ways to reduce echo, most simply requiring common household items. These include:

1. Use room dividers to reduce the room size
2. Surround the microphone and laptop with pillows and/or quilts
3. Place heavy furniture in the room

Above: pillows positioned around a recording laptop. Image by Tuija Aalto, licensed under CC BY-NC-SA 2.0

- *Eliminate 'pops' in the microphone*

When using a phone or standalone microphone to record audio, there is a higher likelihood for pops to be heard when the speaker vocalises plosives (p, b, t, d, k, and g).
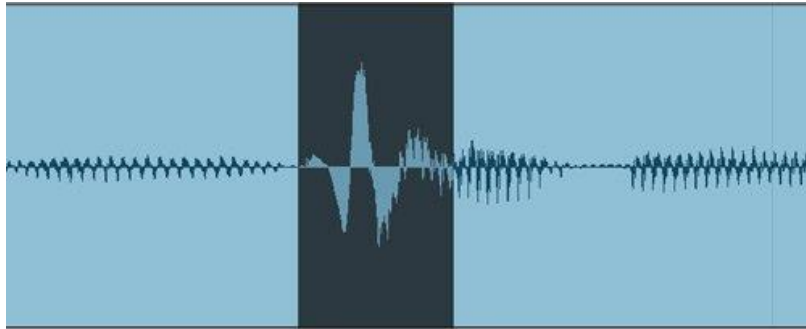
Plosives are very noticeable in recordings

Ideally, students would have access to pop filters if they use standalone microphones. Where that is not the case, students should be encouraged to speak into the microphone at approximately 45 degrees diagonally – either moving themselves or rotating the microphone (see below). This reduces the strength that plosives are picked up by the microphone, reducing the 'pop' effect. Another way to create a faux-pop filter is to put a (clean!) sock over the microphone to achieve the same effect as a pop filter.
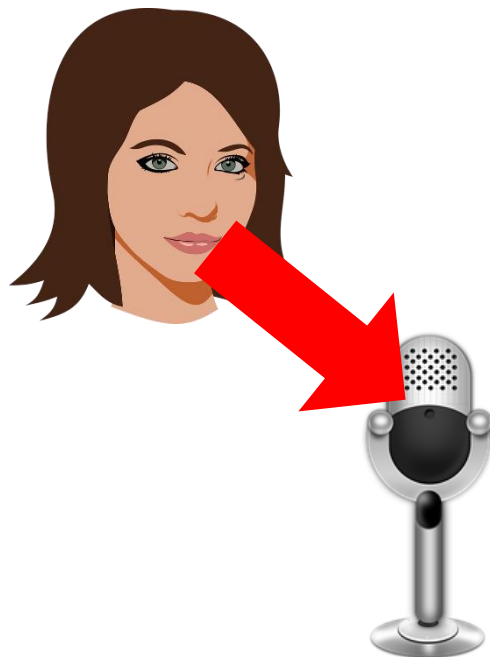
Conclusion

More and more instructors are looking to use multimedia in their courses. Podcasts and films are exciting avenues of growth for your students and research. They can be used as assignments, additional learning materials, or a means to promote your own work. In this report, we have detailed our current best understood practices in using these mediums.

To summarise the findings of using podcasts or films to assess students, they can be used in place of full papers, as short pitches to demonstrate knowledge of readings, or as end products of an entire course. There are resources available through the Future Learning Office that students can use to access high quality audio equipment. Instructors should provide students with some resources on how to make the best use out of the equipment. Whether instructors wish to assess students on the production quality depends on the availability of equipment and training provided to students during the course.

Additionally, bespoke podcasts and films can be produced by instructors to complement conventional reading lists and materials. Other instructors have recorded their own podcasts that show students how to apply concepts from assigned readings to events in the news that week.

It is a great time to rethink your curriculum and provide your students with opportunities to learn marketable skills in the job market: media production. The Future Learning Office is there to assist you with any additional questions you may have.