STREAMING WITH STUDENTS

A guide to using video games live-streaming as a student engagement tool

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WHY VIDEO GAMES STREAMING?

Live streams of video games have become one of the world's most popular forms of entertainment media. Streaming (as it is commonly known as) now accounts for a significant amount of international internet usage. Twitch.tv (one of the most popular live streaming services) accounted for 3.11% of all internet traffic in Europe, the Middle East and Africa, (the 7th highest for overall traffic) in 2018. Importantly, the vast majority of streaming services are community-driven with everyone capable of being a streamer or viewer.

One of the reasons for the rise in popularity is how accessible the format is, most gamers already have everything they need to broadcast and the software is free. The vast majority of streamers are amateur gamers, sharing their playing experience with the world. This accessibility has democratised live broadcast and video games are inherently entertaining by design. Many popular streamers have grown their channels from nothing to a wide audience base; becoming recognised as celebrities in their own right. However, their grassroots origins has led to them being seen as independent and separate from commercial celebrity culture. Currently the most subscribed YouTuber in the world is a video games streamer known as PewDiePie.

The video games streaming format has a number of advantages for student engagement initiatives. Firstly, a large number of students are already using these venues as entertainment. By running initiatives on a live stream service we take activities to a platform that the students are likely already visiting, rather than directing them to a service they wouldn't otherwise use. Secondly, video games are inherently entertaining, the format keeps students engaged even during breaks in interaction. We have been experimenting using a video games live stream to open up a new channel of communication between staff and students. We have found that the format supports informal dialogue between the broadcasting team, and their audience and have created this guide to support other educators who may wish to experiment with the format.

DEFINING YOUR FORMAT

Before you jump into streaming there are some core decisions you will need to make, such as what game will you play, and who will play it with you?

Webcam Capture   Chat Widget

WHAT DO STREAMS LOOK LIKE?

Video games live-streams are generally configured to look similar to the image above. In the main window the audience will see the game-view of the lead player (the streamer), this is a projection of what the player is seeing while they play the game. An overlay window in one of the corners of the broadcast will typically project a view of the streamer while they play allowing the audience to see the players reactions and facial expressions.

Furthermore, many streams will overlay their chat onto the stream directly using a widget. The twitch channel that broadcasts the stream has a built in chat very similar to the comments section on YouTube (outside and seperate from the live video). However, overlaying the chat onto the stream allows all the content from the event (chat and discussion) to be recorded in a single video view, allowing recordings to be uploaded elsewhere (such as youtube) without any loss of content or context.

ASSEMBLING YOUR TEAM

While it is possible to run a stream solo, a team makes running a stream much easier. As a minimum, getting the support of a moderator is advisable!

Players: Beyond the streamer (the broadcasting player leading the stream) you could invite colleagues to join the game as your opponents or team-mates. Although these players won't be on camera, they can form an important part of the stream, broadcasting audio through voice chat. In this way they are equally able to interact with the audience despite not being the "face" of the stream. If they are willing to respond to student inquiries then they can also take a little pressure off the streamer. Picking additional players with broad experience can be really helpful, as each will contribute something different to discussion, and may be better placed to answer specific questions. Student reps also make great additions, able to answer questions from the perspective of an experienced student.

Moderators: A good moderator is worth their weight in gold. Moderators don't broadcast or play, but instead watch the stream from the perspective of an audience member and monitor the chat. If a viewer contributes toxic or unconstructive content, the moderator can manage the situation. Having moderators perform this function allows broadcasters to solely focus on interacting their viewers. Moderators also facilitate conversation by interacting with the viewers in the chat window. A good moderator can help keep conversation flowing by encouraging constructive debate, and managing disruptive individuals.

PICKING A GAME

Although your favourite game may be fun to play, it may not be ideal for use in a live stream with students. The following pages provide some ideas to consider when picking a game.

PACING AND FLOW

Does the core game loop (the actions that the player will be repeatedly performing) meet the needs of the engagement? The mechanics of the game should not be too mentally demanding as the players need to focus on interacting with the audience. Secondly, the pace of the game should be fast enough to keep people engaged, while not so fast that it becomes difficult to follow.

BREAKS IN PLAY

The game should also facilitate natural breaks in play rather than continuous action. This downtime gives the streamer opportunity to interact with the audience and answer any questions that may be asked. Breaks may be built into the game mechanic explicitly (such as the end of a set in tennis), or more implicitly based on the gameplay decisions made by the player.
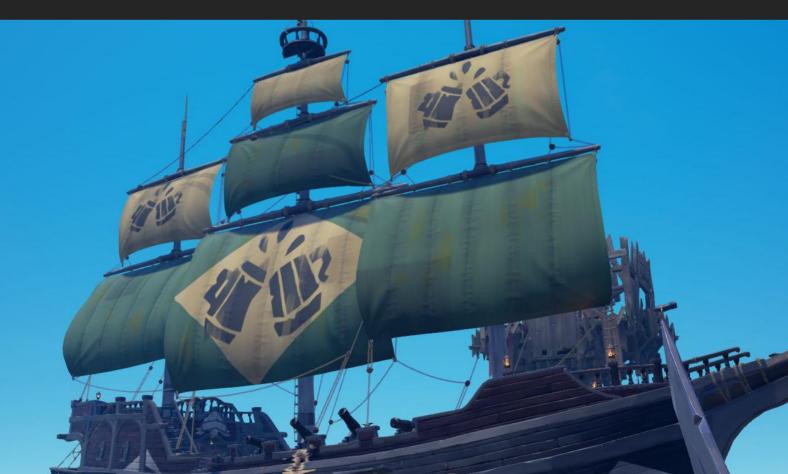
COMPETITIVE Vs COOPERATIVE

How will your team of players interact? Will they be competing with each other or cooperating? Cooperative games have a number of advantages, they generally allow players to step out of the action while their team provides support. This optional downtime can provide opportunity to answer questions and interact with the audience. Furthermore, cooperative games tend to keep the majority of player visible in the game window which can help keep the stream visually interesting. We also believe that showing cooperation between the streaming team can contribute towards a positive learning community ethos. Conversely, competitive games can add an element of suspense, and the audience can get invested in the competition itself, supporting specific players or teams. However, due to the nature of these games the players are often under pressure and this can limit audience interaction.

INVESTMENT

Video games can be expensive, for example, some modern PC titles can cost £50. If you have a team of four, you may need to invest £200 just on on the game (as each player may need a copy), furthermore, some games require high spec computers which you may need to factor in. However you may be able to cut these costs. There are various free-to-play and open-source games available, and stores such as humble bundle often have discounts on popular titles. Furthermore, if your team are already avid gamers, you may already have games available.

CONTENT

In Higher Education we work with a mature audience which allows for a broad range of games to be used in this application. However, you may consider some content too distracting, or worry that it is potentially offensive to your audience. A good solution to this problem is to consult with your students, ask them the kinds of games that they would like to see ou stream.

NUMBER OF PLAYERS

Games are typically limited in the number of players they support. You need to consider how many people you want involved in the stream at any one time. Having a number of players who represent different perspectives can be really useful in responding to questions. In addition to lecturers, technicians, support officers, undergraduates and postgraduates can all bring something useful to the stream and take some pressure off the lead broadcaster. However, too many people can result in the voice channel becoming overcrowded. We have found that between four and six players tends to work well. It provides a good range of perspectives, without overcomplicating the communication.

ACCESS CONTROL

You need a game that allows you to invite specific players rather than placing you with a random allocation of players from the game's community. Secondly, the purpose of the stream is to interact with students and answer any questions they may have about their studies. You don't want this interaction to be interrupted regularly by players who simply want to play the game, and are not concerned by your student engagement objectives.

NOVELTY AND INTEREST

The video game being broadcast is a vehicle to help capture your students initial interest, and maintain it during quiet periods in the interaction. Consider the currently popularity and novelty factor of the game; Twitch.tv maintain a useful list of the most popular games streamed on their platform which can help you with your decision.

SEA OF THIEVES

We experimented with a number of different games before settling on Sea of Thieves by RARE ltd. Sea of Thieves is a multiplayer cooperative pirate simulator where players work together to complete quests. The game features lots of downtime built into its gameplay loop; each quest requires you to sail between islands which can take several minutes, this provides loads of time for interacting with the audience. The content is humorous and and lighthearted, and doesn't include any mature content. Visually, the game is rendered in a cartoon-like graphic style which is easy to follow from a viewer's perspective even if they are watching on a mobile device. Sea of Thieves currently allows up to 4 players to join a pirate crew, which meant that we could invite a range of different staff and students to join the stream and be involved in these engagement opportunities. We also found that the cooperative nature of the game was a better fit for the ethos we wanted to promote than competitive games. Another big advantage for us was that the game was open-ended, with regular updates. This allowed us to better justify the expense of the game as once purchased we could use the same game for a large number of streams without running out of content. Furthermore, the game includes many opportunities for spontaneous un-scripted gameplay with challenges (such as megalodon sharks) which adds enjoyable unpredictability to the stream.

GETTING STARTED WITH TWITCH

In the following sections we will quickly cover how to start broadcasting on Twitch.tv. You will need a computer ideally with two monitors, as you will need one for the game and one to monitor the twitch stream. If you don't have a second monitor, you can load the stream on another device, such as a mobile phone.

BROADCASTING SOFTWARE

To broadcast on Twitch you will need to download some live-streaming software. We would recommend StreamLabs OBS (SOBS), which is a specific implementation of the open-source Open Broadcasting Software (OBS) package.

The advantage with SOBS is that it is free, user friendly, and you can customise your broadcast to meet your needs. There are many other options available (including some premium offerings) however, SOBS is hard to beat for usability.

1. The first thing you need is a Twitch account, go to the Twitch.tv website and signup. Login and click on your profile picture to open up your channel settings, from this menu click "dashboard". Once you have loaded the dashboard, select "settings", followed by "channel". Once in the channel menu you will see your "Stream Key" at the top. Copy this, you will need it to set up SOBS!

2. Download StreamLabs OBS (Stream Labs Open Broadcaster Software), from their website (https://streamlabs.com/) it's a free and very capable piece of broadcasting software.

3. In the settings option, select the stream options, and select Twitch as the service you wish to use, and paste you Stream Key into the correct field.

4. At this point you can go live on twitch, but you won't have anything setup to broadcast. We will cover this in the next section.
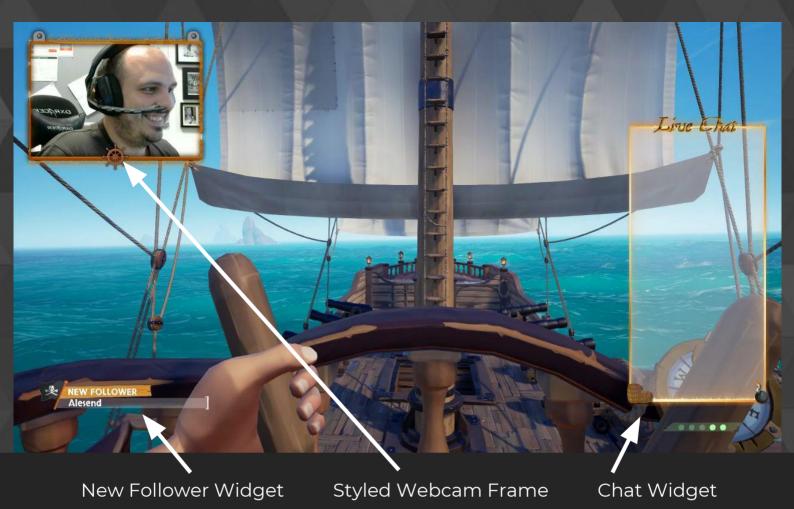
CONFIGURING BROADCAST

At the moment StreamLabs OBS will connect to twitch, and go live, but nothing will be broadcast. To allow your game to be broadcast live over Twitch you will need to tell the software what to capture.

1. Load the game you want to broadcast, and leave it playing on one of your monitors.

2. On your second monitor load StreamLabs OBS. In the sources panel press the + icon and select 'Game Capture'. In the mode option select 'capture specific window' and in the window option select the title of the game that you are currently running. The software is capable of capturing most software windows, so be careful that you select the right one from the list.

3. If you have done everything right, your game should now be showing in the StreamLabs OBS window.

If you have a webcam you can add a camera stream to capture your expressions and reactions while you play the game. It allows your students to see who is streaming, and gives them a face to direct their questions to. For students who may be hard of hearing, allowing them to see your face can also help them to read your lips while you respond to questions.

1. Press the + icon again and select "video Capture"

2. From the device drop-down menu select your camera, press OK.

3. In the sources window you will now see the game, and your camera, make sure you place the camera source above the game capture. If you have done this right you should see your camera view in game. Resize this window and move it to one corner where it won't obstruct the view of the gameplay.

New Follower Widget   Styled Webcam Frame   Chat Widget

WIDGETS AND THEMES

Widgets are tools you can add to your stream to display additional data. For example, you can broadcast the chat window as an overlay on the stream. This is really useful if you are planning to record your stream as the comments would otherwise be lost. There are many widgets you can include directly through the software and loads of guides online on how to configure them. However, in many cases the easiest way to do this is through a theme.

 StreamLabs has a full library (https://streamlabs.com/library) of themes which can change the entire look of your broadcast through styled elements. The themes typically come with some pre-configured widgets to simplify your setup. The standard broadcasting view is very utilitarian; this is fine, and works perfectly well! However, if you want to customise the look of your broadcast to personalise your stream a theme is an easy way to do that. You can do this fully manually, however,We currently use the "Rummy" theme which was designed to match the Sea of Thieves aesthetic.

RUNNING YOUR STREAM

You have a team, a game, and you are ready to broadcast... it's time to run your first stream! In this section we will cover a little advice to help your first stream go smoothly.

REMEMBER WHY YOU ARE HERE!

It is easy to forget the purpose of your stream when you are midway through playing a game. Remember the intention is to give students another way to engage in a dialogue with you, so make sure you keep an eye on the chat interface and respond to questions as quickly as possible.

THE COMMUNITY IS BIGGER THAN THE TEAM

Hopefully you have found some colleagues to join you on the stream and assist with moderation, but they are not the only support that you have. Students in the chat are also invaluable and it is useful to engage them as partners in the process. You will often find that when a student asks a question, another will reply before you do. Try to encourage this, and praise people for contributing to the community.

MODERATORS AT THE READY

When you create a twitch account you can pick any name you wish. This anonymity can embolden non-constructive individuals resulting in "trolling" (a colloquial term for non-constructive interaction/discourse). Having moderators on hand to manage these situations can help keep your stream fluid, friendly, and inclusive. Don't be afraid to ban toxic commenters.

ASK YOUR OWN QUESTIONS

A good stream is a dialogue between the streamer and the audience. Don't expect the students to ask all the questions. When you get inquiries, follow up with your own question, this is as much of an opportunity for you to learn as it is for the students. Try to keep the dialogue moving as this will encourage more interaction from the students in the audience.

DON'T MIND THE LURKERS

Not all of the audience watching the stream will want to interact with the broadcasters. In the streaming community, these non-interactive audience members are often referred to as lurkers. Some won't have any questions to ask, but will be watching the stream incase someone asks something relevant to them. Others will simply just be interested in watching the stream and feeling like part of the community. Some students may watch your stream instead of the channel they would normally be viewing. We have had several students tell us that they liked having our channel on in-the-background while they worked. We have found that this passive engagement can still be positive. These viewers still hear the same discussions as the active participants, so they still benefit from the discourse.

DON'T TRY TO BE A PRO GAMER

Students don't care about how good you are at the game. If anything, being bad at the game is humanising in itself. It's disarming to see someone in a position of relative power, relaxed and having fun, and it is relatable if they aren't very good! The intention is not to demonstrate your prowess but to give students a new way to interact with you.

REMEMBER IT'S A LIVE BROADCAST, BUT TRY NOT TO WORRY!

It is easy to forget that you are broadcasting live. When answering questions it is a good idea to give yourself a second to make sure you are getting the answer right (and be mindful of your terminology/language). However, we have found that students are surprisingly forgiving if we ever need to correct ourselves. Relax and treat it like any other conversation!

DON'T FORGET TO RECORD

Streams are likely to happen outside of normal working hours, and may not suit all your students diaries, especially those with other commitments. We get around this problem by recording all our streams, and uploading highlights videos to YouTube meaning that no one misses out on the information. We also allow students to email questions in advance that we can discuss in the stream ensuring their voice is still part of the community dialogue.

HAVE FUN

Relax and enjoy the game you are playing! From an engagement perspective there is something very relatable about watching people engage in play. But if you are doing this outside of work hours, make sure that it is something you want to do. If you enjoy yourself, you will run a much more engaging stream.

GET STUDENTS INVESTED!

Involve your students in the decision making from day one. Ask them if this is a format that they would like to engage with, ask them to help you pick out a game to play, ask them if there are any specific topics they would like discussed. If the students feel like they have some ownership and input into the process they are much more likely to engage with it. We have had some students who have helped us to run the stream since we first started. These individuals have provided vital feedback on how to make each stream a success, they have also been active contributors to the chat, helping to keep the discussion moving and encouraging input from more reserved individuals. We have found that students also make the exceptional moderators as they have a good understanding of their community and passing off this authority gives them further ownership of the initiative.

INSIGHTS

We conclude with some of the insights we have gained after running streams for the past year.

THE DISCUSSION DOESN'T END WHEN THE STREAM DOES

We have been amazed at how many students have approached us the day after a stream to discuss it. Sometimes they want to refer back to a specific question or discussion, other times they just want to give feedback. Generally we have found that the format has really helped improve the approachability of some of the staff on the stream, referring to an earlier point... it is very humanising watching someone engaged in play.

VIEWERSHIP NUMBERS ARE ONLY A GUIDE

Imagine this, you have a cohort of 150 students, but Twitch says that only 17 people are currently watching. One of our big surprises was that students were getting together to collectively watch the stream as a group. We now know that on one stream, 5 people were asking questions from one account, and although the viewership was listed as 22 it was the actual number of viewers was at least double that. The highlights reel we uploaded subsequently had a further 80 views within a week.

STUDENTS MAKE GREAT STREAMERS

We have rotated our broadcasting team on a couple of occasions. This has allowed us to do themed streames, talking about specific topics that certain individuals have an expertise in. We have also had students involved in the stream from day one, and have always had a student (a third year or postgraduate) as one of the broadcasters. Having an experienced student in the team can help by answering questions from the perspective of someone who has been through similar experiences.

YOU NEVER KNOW WHO IS WATCHING!

Be mindful that twitch is a public broadcast that ANYONE can watch. Since starting we have had alumni, industry partners, students from other countries, and (on occasion) parents of current students view the stream. It is useful to always remember that you are representing your programme when you go live and always keep this in the back of your mind. However, we have had really positive responses from our visitors. Alumni have enjoyed catching up with the team, and parents have praised the way we interact with the students. We also had some students from a similar degree in the US find our stream byy accident, but they stayed online to engage with us further. Those students have since followed up with us to explore the possibility of engaging in projects with our cohort. Every visitor is a potential friend to your programme, so we don't deter their engagement.

SOME STREAMS WILL BE BUSIER THAN OTHERS

We have had very lively streams and streams that have been very quiet. Engagement will vary based on the time of year, the amount of workload that the students currently have, and if there are any factors that are driving them to ask questions. We now go to the students and get them to vote on when we should run our streams and this has generally improved our engagement.

STUDENTS LIKE DIFFERENT PERSPECTIVES

When picking your team reach out beyond academic colleagues. One of the most consistent pieces of feedback we have received is that students like it when we have people who can answer questions from a different perspective. We have involved industry partners, technicians, postgraduate students and administrators, each brought something unique to the discussion.

RECOGNISE THE GAME FOR WHAT IT IS!

Video Games streaming is a relatively new entertainment phonema, and despite being one of the most popular forms of live broadcast in the world it can be quite difficult for some people to get their head around. It seems alien that someone may want to watch you play a game, despite the fact that we have watched people "play" in many other forms (such as competitive sport) for many years.
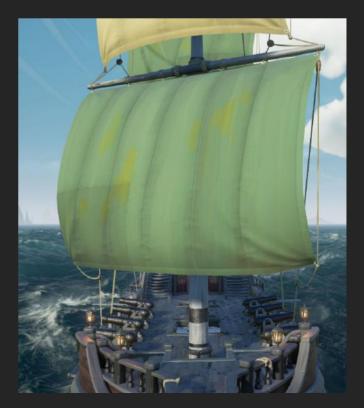
Something we have been asked is why don't we broadcast live without the game, and simply to a programme level video chat. You could, and the software would allow you to simply send a camera view. However, the game serves a few purposes which makes the format more engaging.

Firstly, (and most importantly) the game can help keep people engaged between questions. If someone doesn't have anything to ask, they may still stay to watch the game. This gives them chance to hear other peoples questions, and maybe formulate their own.

Secondly, the game keeps the team engaged.. We always run our stream for a couple of hours, and students come and go as they please (and however suits their schedule). The game gives the broadcasting team something to do between peaks of activity.

Finally, it changes the dynamic of the discussion. The nature of a gameplay loop means you have limited breaks in activity to answer questions, so responses tend to be focused and targeted. This also gives

the other members of the community in the audience an opportunity to respond, and get involved in answering questions. (and supporting their peers). We have found that entertainment and fun is a quality that shouldn't be underestimated. Knowing that everyone involved in the stream, broadcasters and audience, staff and students, are their to enjoy themselves changes the dynamic from delivery of information to a community engagement. Ultimately the game is a facilitation device to help you create that atmosphere..

Many student are already choosing this kind of media, it's a format they are familiar with and probably already engaging with. The game is an essential component of what makes the format unique and engaging.

HAPPY STREAMING!

If you have read this guide and are planning to experiment with the format we would love to hear from you! Feel free to contact us at cheadleand@lincoln.ac.uk let us know if we can be of any further advice. We would also love to hear about your experiences using streaming with your students.

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