



## BEXHILL-ON-SEA TOWN COUNCIL

# LIVE STREAMING OF MEETINGS REPORT

Version 2.0 Updated 13/06/2023



**Background:** Bexhill-on-Sea Town Council has requested an investigation into the possibility of live streaming council meetings to the internet to facilitate open government. There have been some issues with regard to implementing this in terms of expertise and equipment and this report is raised in an effort to explore the council's options in managing this service.

The nature of council meetings involves up to 18 members who need to be seen and heard adequately. The council meets regularly in the same room but a permanent set up is not possible as the room is not controlled by the Town Council, and they are not the sole users. Any equipment used needs to be set up and taken down quickly.

**Options:** There are primarily two ways of managing live streaming open to the council.

1. The service is outsourced to a contractor, who will handle this for a cost. As meetings are evening events the cost could be substantial (A recent quote came out at £1300 per meeting), however a provider will have the necessary expertise to ensure that it is relatively problem free. This could be commercial organisations like Inclusive Digital or voluntary groups like the Town Forum - who performed this service previously. If outsourced, it would be expected that all equipment and personnel necessary would be provided as well as a suitable level of expertise.
2. The service is run in-house. This would necessitate the council owning the equipment and staffing the service. Staffing would need to come from the council's employed staff (rather than councillors) to negate any accusations of bias. Currently Bexhill-on-Sea Town Council employs five members of staff and has a small amount of equipment (See *appendix 1*). These staff all have other priorities and workloads that do not encompass working at meetings. Whether the level of expertise and manpower is sufficient is yet to be determined but unlikely at this stage to be so. The direct financial costs to the council would be potentially lower but so would the quality of transmission.



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**Equipment:** The process of live streaming has a requirement in equipment and manpower.

The following equipment is necessary for live streaming:

- Camera (Or mobile phone) and tripod
- Microphones
- A good WiFi connection
- Streaming destination or service
- A video encoder

**Camera:** The council currently owns two webcams, both cameras are made by Logitech. As these have been used previously for streaming it is assumed that they are adequate for the task, however the number of councillors probably require either multiple cameras (to cover everybody) or a camera operator to focus on each speaker. Multiple cameras will require a vision mixer to cut between speakers.) Potentially a mobile phone could be used as an alternative.

**Tripod:** Council owned, manufactured by KF Concept

**Microphones:** The council owns the following microphones: 3x Shure Hand-held radio microphones, and 1x Shure Shotgun microphone. The hand-held mics need to be held by the speaker to be effective - this is difficult in a meeting environment. The shotgun mic is better at picking up sound from all directions, but the number of councillors means a single shotgun mic is insufficient especially. Using more than a single microphone will require the use of an audio mixer.

The council also owns a Zoom H2n which is used to stream audio of meetings at the present time.

**Wi-Fi connection:** It is assumed the wi-fi connection in the meeting room is adequate for streaming. The Council owns a wi-fi dongle for backup purposes.

**Streaming destination or service:** this is where the video/audio will be uploaded to allow public access. YouTube is the most obvious service. It is worth noting that if there are not a lot of people viewing the live stream it may be better to record it and post it later. The Town Council currently audio streams to YouTube.

**Video Encoder:** The council owns a webcaster to link to the internet, alternatively a computer with streaming software can be used.

**Staffing:** The tasks necessary for streaming involve the set-up and striking of the equipment, monitoring and/or operation of the cameras, monitoring and/or operation of the microphones and resolution of any issues. This requires at least two staff to be efficient. As some of these issues are of a technical nature, training and competence are a factor.

**The Venue:** The requirements for the venue include sufficient power to run the equipment and suitable internet access. This is assumed to be fulfilled in the Council chamber where meetings are currently held.



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**Technical Factors:** The following miscellaneous factors are important for live streaming: (See Appendix 2)

- Camera set-up
- Microphone set-up
- Testing the Stream
- Analytics

**Camera set-up:** This needs to ensure that all participants can be seen. It can either be a single or multiple fixed cameras that the operator can switch between as individuals speak, a camera with an operator that can focus on each individual or a combination of the two.

A single fixed camera is the simplest option but each speaker is (as in Bexhill's case) an eighteenth the size of the screen and it may be difficult to distinguish who is speaking.

Multiple cameras offset this but need a vision mixer (or switcher) and operator to switch between views.

An operated camera is just pointed in the direction of whoever is speaking but the camera moving between speakers is clumsy and distracting for the viewer. It also requires a camera operator.

**Microphone set-up:** To ensure everyone is able to be heard equally, one or more microphones are required. The positioning of microphones is important as is the type of microphone used. (See appendix 3)

In an ideal set-up, each speaker will have his own microphone. Clusters of mics, each covering two or three speakers could also be used or even a single microphone mounted overhead or in a central position.

A single microphone has the disadvantage that participants speak at different volumes and will be at different distances from the mic and therefore may not be heard

If more than one microphone is used a mixer will be required and someone to monitor the sound levels.

**Testing the Stream:** This will need to be done prior to any meeting to check everything necessary is being uploaded. This will also need to be monitored during the meeting.

**Analytics:** Certain data is pertinent to deciding whether a live stream or recording is relevant. The large costs involved may mean that streaming live to 3 people is not considered value for money whereas a filmed and uploaded meeting might be more cost effective. Data would need to be collected on how many 'viewers' are watching live to ascertain this factor.

**Alternative options:** Filmed meetings could be uploaded rather than streaming live. Costs would be comparable (as you are still doing everything) but you would not have to use a specialist company to do this and would have some degree of editorial control

**Risk Factors:** There are certain risks involved in live streaming which are identified below:

- Reputational damage. Inappropriate behaviour or language will have a negative impact on Bexhill-on-Sea town Council.
- GDPR. Care needs to be taken to ensure this legislation isn't breached. This may be difficult in a live environment, especially if members of the public are present
- Confidentiality. Certain subjects may need to be discussed confidentially. This may be difficult in a live environment.
- Financial. This service is invariably expensive and may not represent best value.



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- Accessibility. It is assumed that this service increases accessibility for the public, however, to avoid accusations of bias, the footage will probably have to be streamed or shown unedited. This is unlikely to be viewed as either dynamic or interesting viewing by the general public, who are used to seeing sophisticated TV from commercial channels.
- Technical or personnel. There may be failings in technology, equipment or services that prevent streaming or personnel may fail to turn up.

### **Further Actions:**

- The council's policy on live streaming could be reviewed.
- A method of gauging interest in streaming should be conducted – The council may end up spending a considerable sum of money for a service that less than 10 people use.
- Equipment needs to be purchased, training arranged, or a contractor appointed.
- A test streaming event conducted.
- Go live!

### Appendix 1: Council owned equipment

3 x Shure hand-held microphones 1 x adaptor and 1 x control box plus 2 microphone holders

1x Shure Shotgun microphone

1x Benq digital projector

1xWebcaster

1x Logitech Webcam

1x Logitech Webcam - Small

1x USB 3.0 7-port hub - TP-Link with USB cable

1x Keyboard

1x 22" Monitor

Assorted 13a, USB and HDMI leads

Cable protector

Webcam remote

Kitchen timer

Patch cable

Apple mouse

Two wooden blocks

Camera stand

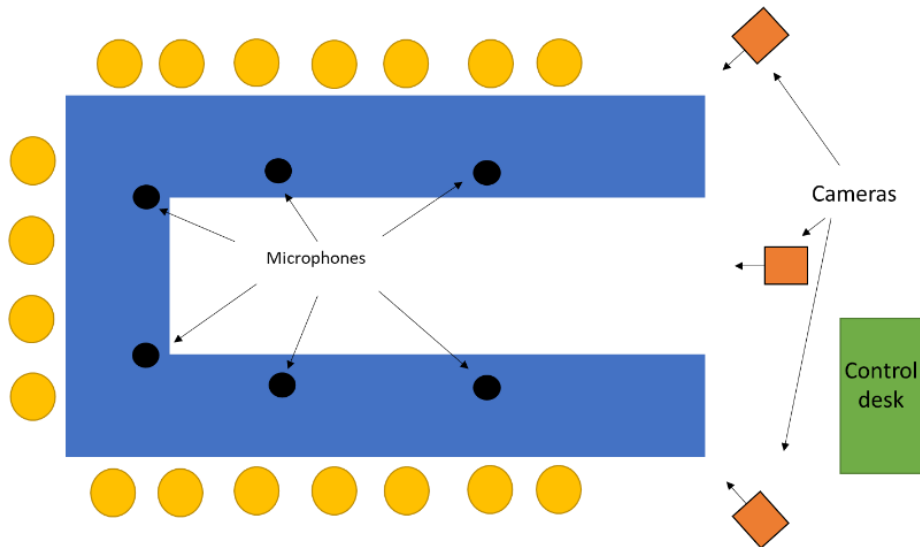
2 speakers



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## Appendix 2 Suggested set-up

Streaming set-up



## Appendix 3 Types of Microphone.

For the purposes of this report the following types of microphone are relevant (NB 'speaker' refers to a person talking not an audio loudspeaker)

*Levalier or lapel Mic:* This is a small microphone worn (Usually with a pack). The mic needs to be close to the speaker's mouth

*Cardioid:* This mic has a heart shaped area in front that picks up sound but is only useful for 1 speaker (Or possibly two if they are close together)

*Hyper Cardioid:* This is also called a rifle mic. Its cone is longer and thinner, so it doesn't have to sit close to the speaker.

*Shotgun:* This has a profile similar to a cardioid mic but has an enlarged pick-up cone behind the mic (And also sometimes smaller cones to the sides). This means it has better omni-directional pick up

*Boundary mic:* Sometime known by other names - these microphones tend to be flat with a small diaphragm – The surface they sit on partially acts as the diaphragm – This allows great pick-up of sound over a large area. The disadvantage this mic has is that it can pick up virtually everything – shuffling papers, tapping on the table etc

## Appendix 4 Options and costings

Working on the assumption of 35 meetings per annum to be streamed.

### Option 1

Do nothing. Cost per meeting £0. Cost per annum £0



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### Option 2

Professional Company to provide service. Cost per meeting £1300. Cost per annum £45,400.  
All equipment and training is taken care off but the cost is high.

### Option 3

Use voluntary organisation. Cost per meeting £170. Cost per annum £5950  
Training and equipment may be less than adequate. Additional equipment costs may be necessary.

### Option 4

Provide service in-house. Cost per meeting £300. Cost per annum £10,500  
These costs are based on 2 staff at £25 per hour plus additional necessary training and equipment costs.  
Inexperience and training could be a factor

### Option 5

Filming and uploading. Using a non-specialist company .  
Cost per meeting £300. Cost per annum £10,500  
This would be of comparable cost but it would be easier to manage and control the output. A policy would need to specify how any filmed material is edited to avoid accusation of bias.

### Appendix 5 Using a mobile phone to film.

With more and more high-quality mobile devices capable of being used. This may be considered a viable alternative to a camera.

The question of whether the council would be happy to have this data stored on someone's phone needs to be addressed.

#### 10 Tips on How to film on a Phone.

Here are some tips on how to film on a smartphone in general.

#### 1. Use a tripod

If you can, try to use a tripod for filming while you are making videos on your smartphone. A tripod is usually a 3-legged mount that stabilizes the image while you are shooting.

Usually, you can get an entry-level tripod for up to £30.



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### **2. Find good lighting**

Whenever you are filming on a smartphone, the lighting can be a challenging part of the adjustments that you need to make.

While you are filming indoors, try to use any kind of light source, like a ring light, or buy a lighting kit. Also try to use fluorescent bulbs, they are more likely to be similar to daylight.

### **3. Don't forget to use an external microphone**

Another very important tip is to have an external microphone to deliver high-quality audio.

Smartphones have good sound recording, but when filming, the extra microphone will not help, especially considering the number of Councillors.

### **4. Switch to the airplane mode**

If you are not expecting any important call or a message, always be filming in airplane mode while using your smartphone.

It will not only save you some battery life but blocks all the calls and notifications that might interrupt your video.

### **5. Hold the smartphone in a horizontal position**

It will provide a nice wide angle unless you want to have black bars on both sides of the video and half the council meeting room missing.

### **6. Pre-record your video**

Always pre-record 5-10 seconds of the video footage to see if you are happy with the angles, lighting, and audio.

### **7. Frame the image**

Frame with the rule of thirds. Set the grid, which looks like a 'noughts and crosses' grid and try to put your subject in the middle.

and the background is slightly blurry.

### **8. Avoid video editing on the phone**

Try to avoid video editing on your smartphone. If you are filming with your smartphone, you could add some additional effects, but it is way more comfortable to edit a video on a computer and software for that.

### **9. Consider the quality**

Consider the quality of the camera. Sometimes, smartphones have even better camera quality than a usual mirrorless camera.

### **10. Have some free memory space**

Make sure that you always have some free memory space on your smartphone. Don't forget when you are finished filming to transfer video files to your computer.