



Live-Streaming Mass from Scratch: some reflections on Live-Streaming of Holy Mass and Devotions at Leeds Cathedral

At this time of change and anxiety, we can help keep participation in Holy Mass as familiar, comforting and immersive for the faithful as it would be if they were there in person: united in communion with one another, with those on the Sanctuary, and with the Lord.

Introduction:

Leeds Cathedral began live-streaming as a solution to the cessation of public Mass during the Covid-19 emergency. Working together as One Diocesan Family, this initiative continues to depend on the close partnership between the Bishop, Cathedral Clergy, Diocese of Leeds Music, and Communications. The first Mass was celebrated by Bishop Marcus Stock on the Fourth Sunday of Lent (22.03.2020), at which he delivered a Pastoral Message of support and reassurance that 'Laetare!' was, despite all appearances to the contrary, appropriate both for the day and the circumstances.

The capacity congregation of Leeds Cathedral is between 450 and 500: as many people as that were already watching online before the Mass began. Within one day more than 6,000 people had watched the broadcast, including some from Northern Italy, and even as far afield as India and Australia. The numbers watching live continue to peak at around 2,000.

Keeping it Catholic:

- In keeping with the Decrees from Rome and other messages from the Holy See which indicate that live ('not recorded') broadcasting of the sacred liturgy is to be used for encouraging the participation of the faithful, Mass should if possible be live-streamed and not pre-recorded; recordings taken from the live stream are made available to view on YouTube.
- The broadcast is as authentic as possible to the time and regular practices of the Cathedral. The result does not try to imitate a TV broadcast of Mass – and certainly not an entertainment programme such as *Songs of Praise*, but instead is as 'immersive' an experience as possible, emphasising Sacrifice not Spectacle. Therefore our camera is placed for the best 'congregant's eye view' of Mass. To avoid images of empty pews, the shot is framed to include the Sanctuary only and is static; crash zooms and whip-pans to re-frame shots in a live broadcast look amateurish and should be avoided at all costs! Always use a Smartfone camera landscape (i.e. horizontally) and never 'portrait', as you might for a 'selfie'! Watch (professionally-filmed) TV for how to frame shots and avoid distracting the viewer's eye with a black screen containing a thin vertical 'arrow-slit' of a picture, nor does anyone need to see the church ceiling, the priest's feet, or a crucifix growing out of the top of his head...
- We were fortunate on the first streaming date to have live music, as the 'physical distancing' required could be achieved through the Organist's position in the organ loft and a Cantrix who at no time shared the ambo or lectionary with the Deacon. The Director of Music and the Dean deliberately chose versatile repertoire appropriate once again both for the season and the circumstances, which we have since been able to re-use. Since then, the Music Director has gained copyright permissions for us to use any and all CD recordings made by our diocesan choirs and organists. We are fortunate that the Bishop and also all the clergy resident together at Cathedral House are blessed with excellent voices, and Mass continues to be intoned and chanted and hymns sung where appropriate.

- The success of the first attempt gave us confidence to live-stream daily Mass, followed by the Angelus and Rosary (particularly important to keep up the Marian devotions in this year of rededication of our country as the Dowry of Our Lady) – and Stations of the Cross on Fridays.
- To enable more active participation of the Lay Faithful, we create branded Orders of Service for Sunday Mass, and prayer resources for the other devotions which are available on the You Tube channel as well as on the diocesan website. Most important of these is, of course, the Prayer of St Alphonsus to enable all to make a Spiritual Communion.
- Seeking ways to promote our new service and enhance the online experience, we are using seasonal images and music from our own Diocese to create ‘title cards’ and short videos.

Creative and technical support:

It goes without saying that none of the above could have worked in practice without the support, skill and talent of a videographer contact sourced by Diocese of Leeds Music. His knowledge of Social Media networks such as You Tube and how to engineer broadcasts both on-site and remotely is invaluable, as is his willingness to familiarise himself with the ways and needs of a Catholic Cathedral and the Church’s Liturgies. However, as he describes in the following pages, the technical side of live-streaming is far from beyond the wit of man (or woman, or priest..!)

Depending on what you want from your live stream, you can make the set up and the equipment as simple or as complicated as you like. All concerned in the live-streaming project are experienced professionals – and as such, we chose simplicity to prove that the cost or amount of equipment is immaterial, and to emphasise that anyone can achieve excellent results which maintain the authenticity of Catholic belief and practice as regards Holy Mass.

Although the term ‘live chat’ might sound like something to be discouraged during Mass, this (moderated) facility on You Tube allows people to add their own Prayers of the Faithful, to wish one another Peace,

and simply to say, 'Amen'. It also allows for those with less online experience to ask 'Why can't I hear anything?' and be assured by another that You Tube cannot unmute or turn up the volume in one's own device or computer. 'Where are the words of the hymns?' was met by the online equivalent of sharing your hymn book: 'Just scroll down!'

***For more in-depth information on the following pages, please feel free to contact Matt Shears of Shears Media direct via 07366 558 904 media@dioceseofleedsmusic.org.uk & mattshears1990@gmail.com**

Matt's You Tube video on creating and engineering a live stream may be viewed here: <https://youtu.be/2FxXfIEde1c>

What's needed?

- A licence is a legal requirement to broadcast copyright music and readings live; it does not give you the right to broadcast recorded music from a CD. More information on how we obtained this 'non-negotiable' may be found here: <https://bit.ly/2JjW4aq>
- For live streaming, the single most important thing is a stable, reliable and fast internet connection. Speeds need to be at least 10mbps Download and 5mbps Upload. At Leeds Cathedral we started streaming using a SmartPhone's 4G hotspot. The Cathedral being in a city centre location, this is providing extremely fast internet to the laptop running the stream. (Of course this may not be possible in all locations.)
- A 1080p Full HD webcam, phone camera (any half-decent SmartPhone from the last five years), camcorder or DSLR. A Logitech C920 is currently being used in Leeds Cathedral and is a perfect webcam for streaming.
- If using a webcam you will need a PC or laptop with 'OBS' installed. This is free open source software designed for live streaming and is what is being used currently at Leeds Cathedral.
- If you are using a SmartPhone use a tripod or prop the phone up on its side (landscape) in a way that the rear camera is facing the subject. The rear camera achieves better quality results than the

front camera (the front camera is the one used for 'selfies'). Streaming on a SmartPhone can be done directly through apps such as YouTube, Twitch, Mixer etc. Leeds Cathedral is using a newly-created You Tube channel set up for this purpose: Leeds Cathedral Live, www.leedscathedrallive.org.uk

- Audio can be captured on SmartPhones, but if you are doing this do not use the PA system. There is no congregation present and so no-one on site needs to hear via speakers. The 'phone's internal microphone will easily pick up your voice acoustically if positioned correctly and not too far away.
- If you have microphones in place already and wish to plug these into a computer to use the audio from them use an external USB mixing desk or USB audio interface to plug an XLR cable directly from the mic to the mixer/audio interface (current set up at Leeds Cathedral)
- If you are using YouTube as your chosen streaming platform, you will need to set up a channel and verify it with a mobile phone number (six digit code sent via text message). **You do not need any subscribers to live stream!** To 'monetise' the channel and enable 'Super Chats' (i.e. donations of money through YouTube's live chat) and to have some control over YouTube's advertising, you will need 1,000 subscribers. This is not a requirement and will probably happen naturally as the channel becomes more well-known.

You can take things further and set up 'Stream Starting' and 'Stream Ending' title cards using stills and video of your church, however, this is not necessary to provide decent quality and immersive streams for people to participate in.

Links to equipment and software used:

OBS Studio - <https://obsproject.com/>

XLR Cables (Various lengths and colours) -

https://smile.amazon.co.uk/dp/B0013NB0I4/ref=cm_sw_em_r_mt_dp_U_uz0FEbAWD2BAK

Recommended USB Mixer “Mackie ProFX12v2 12 Channel FX USB Mixer” –

https://smile.amazon.co.uk/dp/B0101YV7VU/ref=cm_sw_em_r_mt_dp_U_wz0FEbZBZT3N5

Recommended USB Audio Interface (If no more than 1 Microphone is being used) Focusrite Scarlett 2i2 USB Audio Interface -

https://smile.amazon.co.uk/dp/B07QR73T66/ref=cm_sw_em_r_mt_dp_U_-41FEb672QWGB

Recommended headphones for audio monitoring –

https://smile.amazon.co.uk/dp/B01N7S0IPR/ref=cm_sw_em_r_mt_dp_U_zz0FEbE80BYP8

Good vocal microphone “AKG P3s Dynamic Live Vocal Microphone” -

https://smile.amazon.co.uk/dp/B003ELUWAU/ref=cm_sw_em_r_mt_dp_U_Hz0FEb6GVAFT4

Microphone Stand with Boom Arm –

https://smile.amazon.co.uk/dp/B06Y2XZ98N/ref=cm_sw_em_r_mt_dp_U_wA0FEb4268RTJ

Logitech C920s HD Webcam -

https://smile.amazon.co.uk/dp/B07MM4V7NR/ref=cm_sw_em_r_mt_dp_U_s91FEbTAQ00YP

Basic tripod for mounting your chosen camera -

https://smile.amazon.co.uk/dp/B005KP473Q/ref=cm_sw_em_r_mt_dp_U_Qa2FEbPSW3AF6

Decent Laptop for running streams: (ASUS VivoBook, Ryzen 5 Processor, 8gb RAM, 1Tb Storage) -

<https://www.argos.co.uk/product/5826911>

In summary, to set up a simple high-quality stream you may need some or all of the above kit – however, the key things are:

- **Fast and reliable internet.**
- **Camera – Webcam, SmartPhone or ‘Proper Camera’**

- **Laptop – to run the streaming software.**
- **Tripod – for the camera.**
- **Headphones**

If using external audio (not in camera)

- **Microphone**
- **Stand**
- **XLR Cable**
- **Mixer or Interface**
- **Headphones**

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