![JISC logo]

![UKOLN logo]

Greening Events II:
Event Amplification Report

Document details

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About	This report has been provided by the Innovation Support Centre at UKOLN as part of the JISC-funded Greening Events II (GEII) project. Further information about this work is available at <http://isc.ukoln.ac.uk/2011/10/01/event-amplification-report/>.
	The Greening Events II Project is part of JISC's Greening ICT Programme <http://www.jisc.ac.uk/whatwedo/programmes/greeningict.aspx>
Summary	This report gives an overview of the current and emerging best practice in the field of amplified and hybrid events within the UK higher and further education sector. It explores the role of amplified and hybrid events in improving the sustainability of events and provides examples of best practices for organisers of amplified events. The report concludes with an illustration of how the carbon costs for events can be estimated.

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Acknowledgements

Lead partners for the Greening Events II project

Partner for the Greening Events II project

1 Introduction

> *"How can we rethink the way we 'do' events in Higher and Further Education so as to make them more effective in meeting their goals (explicit and implicit) while at the same time making as positive a contribution to meeting our sustainability goals as we are able?"* [1]

The Importance of Events

Events are part of the fabric of almost every aspect of UK higher and further education. However, organisers in the sector are under increasing pressure to make their events more sustainable by driving down carbon and other greenhouse gas emissions, whilst increasing the demonstrable impact of their events.

To help strike a balance between these seemingly conflicting demands, event organisers are beginning to experiment with new modes of thinking about how we "do" events and the affordances of new digital technologies to help them meet their event outcomes. This has included offering amplified and hybrid events, where participants can access the whole or elements of the event remotely via online networked technologies.

About This Report

This report is designed to give an overview of the current and emerging best practice in the field of amplified and hybrid events within the UK higher and further education sector. The report explores the role of amplified and hybrid events in improving the sustainability of events by encouraging new working practices.

The report provides a series of 'quick guides' to both amplified and hybrid events.

The report concludes by previewing early work which has been carried out in estimating the carbon impact of using online technologies to deliver amplified and hybrid experiences.

About The Greening Events II Project

This report has been published as part of the JISC-funded Greening Events II which is being provided by ILRT, University of Bristol; together with the Innovation Support Centre at UKOLN.

The aim of this report is to provide

- An Events Planning Toolkit to help event organisers think through what type of event they need to hold (physical, virtual or hybrid) and then to provide assistance in the form of guidelines and technology tools with each stage in the process to enable them to reduce the negative sustainability impacts of their event.

In addition to this work the other major deliverable from the project is:

- An Academic Event Profiler tool to allow the University of Bristol (and other universities) to systemically profile their event and travel footprints (including financial costs, Greenhouse Gas (GHG) emissions and other negative sustainability impacts) in order to provide a baseline on which to measure any subsequent reductions.

The following resources provide additional information about the Greening Events II project:

- Project information on JISC Web site:
  http://www.jisc.ac.uk/whatwedo/programmes/greeningict/organisational/events2.aspx

- Greening Events II blog: http://greeningevents.ilrt.bris.ac.uk/

2 The Event Spectrum

An illustration of the spectrum of events used in this document is given in Figure 1.
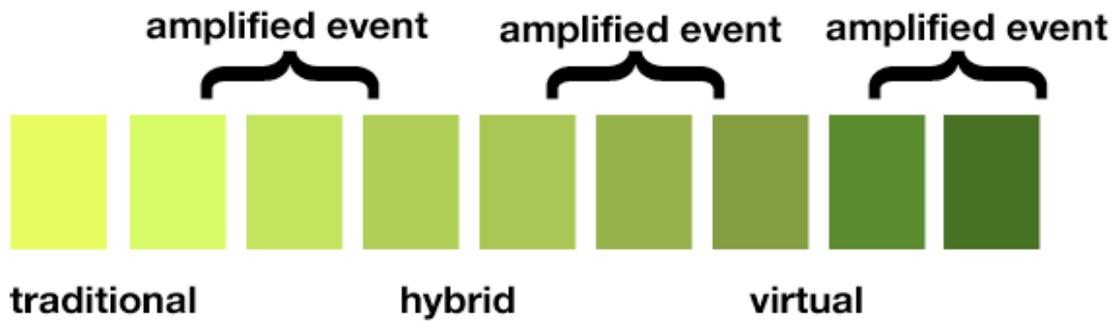
Figure 1: The Event Spectrum

The spectrum is based on the proportion of the audience who are participating remotely.

These terms are defined below:

Traditional Event: An event that brings participants together at a fixed time and place.

Hybrid Event: An event that takes place at a fixed time, involving two types of participant: local participants, who physically gather together, and remote participants, who follow online. A hybrid event will offer opportunities for direct interaction in all aspects of the event for both types of participant. There may also be a mixture of local and remote speakers.

Virtual Event: An event that takes place at a fixed time, occurs entirely online (or perhaps event using a phone). A virtual event does not represent any physical gathering of participants or speakers.

Amplified Event: An event with an emphasis on spreading key event messages and resources through the online social and professional networks of its participants to generate greater awareness of the event and encourage public online discussion before, during and after the event.

An amplified event can be traditional, hybrid or virtual.

Amplified events are often seen as a transitional step between traditional and virtual events, as they can provide a platform for traditional event organisers to experiment and become more familiar with online tools, and to establish whether there is an appetite for online participation.

3   Amplified Events: A Quick Guide

Why Amplify?

Amplifying an event extends the discussion surrounding the event via the online social and professional networks of the participants to increase the influence of the event. This can include amplifying event resources, content, discussion, learning and audience voices across time and space.

Amplifying an event creates wider-reaching and longer-lasting conversations around the event using digital resources which help to increase the impact of the event on the wider community.

What's Involved?

Amplifying an event involves:

- Identifying the channels used by your audience to discuss and share ideas related to the event themes.

- Deciding how to capture and amplify those discussions. This may include the provision of some basic infrastructure, such as:

  - **An event hash tag:** This can be used on tools such as blogs and Twitter as a shorthand to search for materials about t event. Hashtags are widely used in Twitter to define 'keywords' to help in searching and aggregation of content. Event hash tags, such as #iwmw12, can be used to 'define' an event – although it should be noted that hash tags may not be unique.

  - **Conference materials in digital formats:** Preferably hosted using services such as Slideshare that make it easy to share and comment on materials, and provide some usage analytics.

  - **A presence within the most popular social media tools used by your audience:** This will help you to take an active role in the amplified discussion about the event and provide a convenient access point for online event resources.

- Promoting the resources and channels available to encourage amplified discussion before, during and after the event.

Amplified Event Models

There are three main models for amplified events:

1 Audience-driven Amplified Events

Individuals or groups within your audience choose to amplify the event through their own networks unprompted as part of their own professional practice. In the absence of any officially promoted infrastructure, they will usually group together around their own hash tag(s) and produce their own resources, which may include live blogs, video content, photos or even live video streams delivered via mobile devices. The type and quality of these amplified resources will vary depending on who is in the audience and the value they feel they or the community will derive from their efforts.

This type of amplification can occur without any official input from the event organiser. However, in the absence of any centralised point (such as a promoted event hash tag) these materials and the associated discussion may not circulate beyond the producer's existing professional and social connections, and discussions may be fragmented.

2 Organiser-facilitated Amplified Events

The event organiser facilitates amplified discussions to help the whole audience engage with the online conversation and build new relationships across existing professional and social network boundaries. This may involve providing official online discussion spaces or promoting an event hash tag to use as a virtual "watercooler" around which online participants can 'gather'.

Many of the online resources providing coverage of the event will still be created by the audience themselves, but organisers may also share official materials, such as speakers' slides,

handouts and links. They may also provide mechanisms for participants to connect to each other, such as a Twitter list or a Lanyrd page, to help facilitate networking throughout the event.

This type of facilitation can be considered to be a "light-touch" approach, designed to improve the experience for participants who wish to connect, share and converse using online channels.

3 Organiser-driven Amplified Events

The event organiser decides to allocate a designated member of staff or *event amplifier* to help promote key messages from the event and manage any questions or comments received via online channels. The organiser may also choose to produce online materials to support informed discussion for the event by a wider audience beyond the event itself, such as a live video stream or video/audio recordings of sessions. There may also be some effort to bring in voices from that wider, remote audience to influence the formal discussions at the event.

Tools

Some of the tools commonly used in amplified events include:

- **Microblogging and Chatroom Tools:** Twitter, CoverItLive, ScribbleLive, Internet Relay Chat.
- **Resource Sharing Tools:** Slideshare, YouTube, Vimeo, Flickr, Pinterest, blogs.
- **Event Capture Tools:** Storify, iTitle, Scoop.it, Netvibes, Delicious.
- **Social Networking Tools:** LinkedIn, Facebook, Ning, Crowdvine.

Benefits

The potential benefits of event amplification include:

- Increased awareness of the event to support marketing objectives.
- Increased networking at the event.
- Expanded audience across time and geographical/disciplinary boundaries.
- Promotion of open practices.

Environmental Benefits

There is, as yet, no firm evidence that participants will prefer to follow an amplified traditional event from afar rather than attend in person. So whilst it is not possible to say that amplification will reduce the carbon impact of an event by reducing the travel and consumption associated with a traditional event, it is possible to argue that amplification can help to increase the reach of an event without proportionally increasing the carbon impact.

Best Practice

- Openly promote all aspects of your amplified event, especially if you intend to capture and preserve the discussions in any way.
- Carry out a thorough risk assessment of any third party services used to support an amplified event.
- Monitor, but don't moderate. Amplified discussions are owned by the participants, not by the event organiser.

Amplified Events in Higher Education

Amplified events have increased in number across the UK higher education sector, particularly in the technology and information management domains, since the introduction of WiFi networks at conference venues. The rise in the number of delegates bringing networked devices such as laptops, tablets PDAs and smart phones has been an additional contributing factor to the growth in their popularity. Amplified events are now becoming increasingly common across other domains, in line with the growth in mainstream popularity of social networking tools and network devices.

4   Amplified Events: Case Study I

The International Digital Curation Conference 2011

The 7th International Digital Curation Conference took place in Bristol from 5-7th December 2011, organised by the Digital Curation Centre (DCC). The event attracted 150 delegates consisting of researchers, librarians, curators, archivists, representatives from funding bodies, data centres and government agencies. The event has traditionally alternated between the UK and the US, and therefore has a significant international following and a high carbon impact caused by air travel.

Position on the Event Spectrum

Figure 2: IDCC 11 position on the Event Spectrum
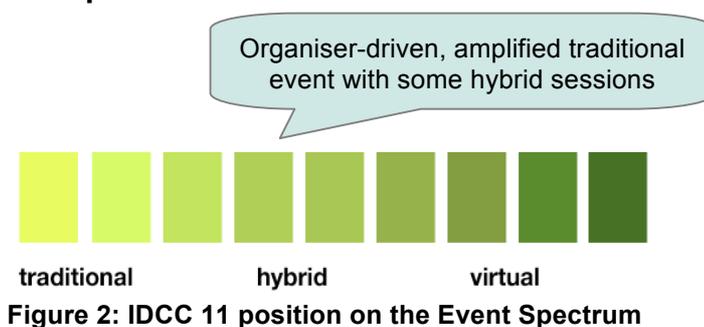
How Was it Amplified?

Before the event:

- ⚞ Keynote speakers were approached for pre-event interviews, which were published on the DCC blog to promote interest in the IDCC 11 programme.

- ⚞ The event hash tag #idcc11 was promoted by members of DCC staff and used by others in the event community in the run up to the event. This followed a similar pattern to previous hash tags in the event series (#idcc10, #idcc09).

- ⚞ The @digitalcuration Twitter account provided regular updates about the event.

- ⚞ An event Lanyrd page [2] was set up. Remote participants were asked "follow" the event's Lanyrd page so they could be identified and supported.

During the event:

A main hub page on the DCC website provided the following materials:

- ⚞ A live video stream of main plenary sessions, provided using Watershed (UStream). Figure 3 illustrates how the video stream was used on the second day of the event.

- ⚞ A discussion space for lengthier comments, provided using CoverItLive.

- ⚞ A technical support messaging box, provided using ScribbleLive (free trial account).

These facilities provided a co-ordinated, hybrid experience during the main plenary sessions.

In addition, the organisers provided:

- ⚞ A live Twitter commentary using the @dccliveevents account. This account welcomed those listed as following on Lanyrd, and received questions from the remote audience to relay to the speakers during the question-and-answer sessions.

- ⚞ An event amplifier, who monitored discussions on the #idcc11 hash tag or in the CoverItLive session and responded to any issues. This person's role included resolving any technical issues raised by the remote audience.

- ⚞ Speakers' slides, which were available via Slideshare, or to download directly from the main programme page in Microsoft Powerpoint or PDF format.
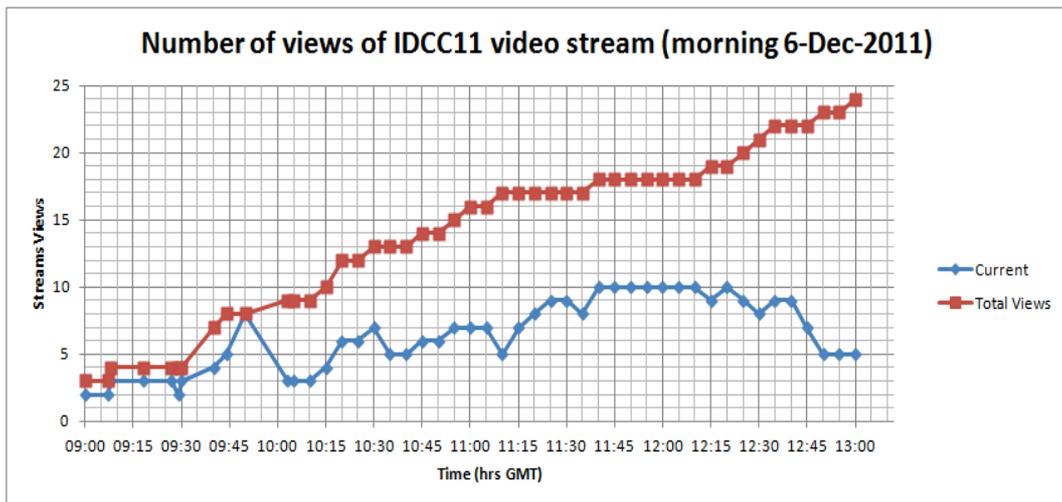
Figure 3: Number of views of the IDCC11 video stream

After the event:

- ✦ A Twapperkeeper archive of tweets from the event was made[1].
- ✦ A Storify summary [3] of social media activity was circulated at the end of each day.
- ✦ Videos of all the sessions (including parallels) were made available via a video gallery page on the DCC website [4].
- ✦ Written summaries were published on the DCC blog.
- ✦ A Flickr feed was established providing official photographs taken by the conference photographer [5].
- ✦ All materials were posted to the DCC website and to the event Lanyrd page [2].
- ✦ Visualisations of Twitter use throughout the event were circulated.

Engagement
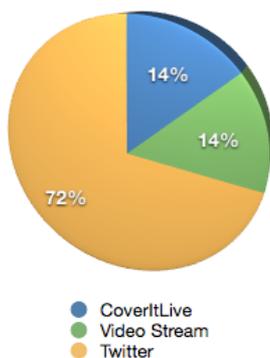
Figure 4a. Live engagement with IDCC amplified materials
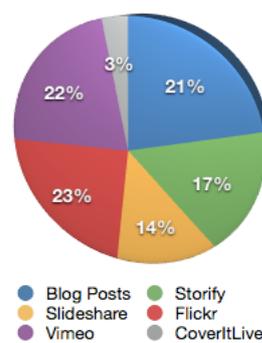
Figure 4b. Engagement with IDCC 11 post-event materials (April 2012)

Notes:

1 There was a time delay affecting video production and upload over the Christmas period, so many of the parallel session videos were not posted until up to two months after the event and did not get promoted via Twitter the event hash tag was in active use.

2 Very few presentations were made available via Slideshare. However, most were available to download from the DCC website in Microsoft PowerPoint or PDF format.

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1 A copy of the TwapperKeeper archive was stored at <http://bit.ly/idcc11-twitter-archive> after the

Financial Costs

The costs associated with the amplification of this event included:

- ✠ Event Amplifier/Staff fees.
- ✠ Live Video Stream Technician fee.
- ✠ Live Stream (charged per viewer per hour).
- ✠ Video Production fee.
- ✠ Video Hosting fee (Vimeo Plus Account).

All other services used in the amplification of this event were free of charge.

The Vimeo Plus account is used by UKOLN to host videos from a number of different events throughout the year. A Vimeo Plus account was not strictly necessary for this event, but enabled the organisers to publish the large volume of video material more quickly due to increased weekly upload limits.

Evaluation

There were three key lessons that arose from the amplification of this event:

1. **Advertise the live video stream option early:** The live video stream was not advertised until very close to the event itself, as the organisers were concerned this would affect the numbers attending in person. There is clearly a tension between wishing to maximise the number of physical attendees at an event and providing timely information about the availability of online access to the event.

2. **Check if any scheduled server maintenance will be taking place:** The servers hosting the DCC website at the University of Edinburgh were being updated during the event, which caused some problems for people trying to load event pages on the site, including the page hosting the live video stream.

3. **Provide free WiFi:** The venue did not provide free WiFi to conference delegates, so the number of local delegates discussing the event online, and thus attracting followers to the live video stream, was low on the first day. The organisers negotiated free access for the second day of the event, but the majority of the live streamed coverage took place on day one, with day two dedicated to parallel sessions, which were not live streamed and therefore afforded fewer opportunities for remote interaction.

5 Amplified Events: Case Study II

UKOLN Evidence, Impact, Metrics: Social Media Metrics Workshop

UKOLN's Evidence Impact, Metrics work culminated in an event on "*Metrics and Social Web Services: Quantitative Evidence for their Use and Impact*" [6]. The workshop took place at the Open University in Milton Keynes on 11 July 2011 and involved 41 local participants and approximately 20 remote participants.

Position on the Event Spectrum
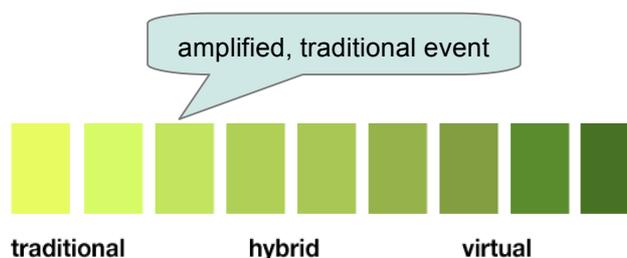
Figure 5: #ukolneim position on the event spectrum

How Was it Amplified?

Before the event:

- ⚐ The event organisers issued a series of tweets and blog postings on the UK Web Focus blog to advertise the event and promote the #ukolneim hash tag.

- ⚐ The event organisers promoted the provision of a live video stream in advance of the event using the event website, Twitter and the UK Web Focus blog.

- ⚐ Potential delegates were required to complete a form which indicated whether they wished to participate in person or remotely. This enabled the organisers to gauge interest in remote participation and provide access information on the day.

During the event:

- ⚐ A live video stream provided coverage of the main presentations via Livestream (advert-supported option).

- ⚐ A live Twitter commentary was delivered by the event amplifier using the @eventamplifier account.

- ⚐ Remote audience questions and concerns were monitored, addressed and relayed to the speakers, as appropriate, by the event amplifier.

- ⚐ Speakers' slides were made available on Slideshare.

- ⚐ A Twapperkeeper archive collected #ukolneim tweets throughout the event[2].

After the event:

- ⚐ A Storify summary of social media activity was circulated immediately after the event [7].

- ⚐ Visualisations of the Twapperkeeper archive were circulated immediately after the event.

- ⚐ Videos from the event were posted to the UKOLN Vimeo channel.

- ⚐ A summary of the workshop was posted on the UK Web Focus blog [8].

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2   A copy of the archive is available at <http://bit.ly/idcc11-twitter-archive>

Engagement
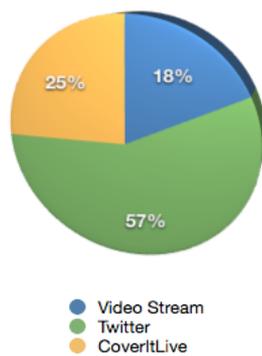
Figure 6a: Live event engagement with #ukolneim amplified materials
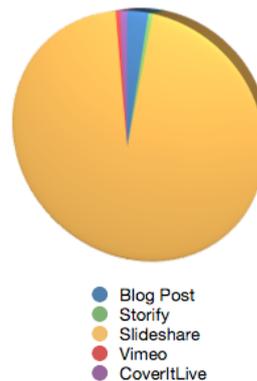
Figure 6b: Engagement with #ukolneim post event materials (April 2012)

Note: The Slideshare portion of Figure 6b is skewed by one single presentation, which was used by the speaker at another event and attracted over 17,000 views as a result. The average number of Slideshare views per presentation was 700-900.

Financial Costs

The costs associated with the amplification of this event included:

- ⚲ Event amplifier/staff fee
- ⚲ Live video stream technician fee.
- ⚲ Video production fee.
- ⚲ Video hosting fee (Vimeo Plus Account).

All other services used in the amplification of this event were free to use.

A Vimeo Plus account was not strictly necessary for this event, but enabled the organisers to publish the large volume of video material more quickly due increased weekly upload limits.

Evaluation

There were two key lessons from the amplification of this event:

1. **Create a clear programme for live online coverage:** The organiser chose not to stream the afternoon session just before it was due to start, due to concerns that the format would not be appropriate for a remote audience. This should have been communicated to the remote audience earlier so they could plan their day appropriately.

2. **Manage expectations:** The act of signing up to follow the event meant that some remote participants were expecting a more co-ordinated event experience. Where materials and discussion are amplified across different services and spaces to reach a wide audience (as in this case), following avidly in real time can mean that remote participants need to manage multiple browser windows to flip between the different live resources.

6　Hybrid Events: A Quick Guide

Why Offer a Hybrid Event?

Hybrid events provide an opportunity to involve a local audience and a remote audience in an event in a fully integrated way. All participants have access to all aspects of the event together with the opportunity to contribute directly to the proceedings on an equal basis. Often this will involve "hub" or "pod" groups who get together physically in small clusters to participate remotely as a group via video or conference.

A hybrid event allows the different groups to come together in a productive way without necessarily travelling to meet in person as a larger group, thus reducing financial costs and potentially reducing the carbon footprint of the event caused by delegate travel (see Appendix 1).

What's Involved?

A hybrid event must be designed to serve two audiences simultaneously and offer as much interaction as possible between the local and remote audiences.

To achieve this, it is important to:

- Design your event programme with collaboration between the two audiences in mind.
- Choose technologies that make direct interaction between the different participants as seamless as possible.
- Ensure you have a familiarity with your chosen technologies or access to specialist technical support.

Hybrid Event Models

There are three main models for hybrid events:

1　The "hub" model

In addition to a main or focal event, localised groups get together to participate in the event online together. These groups are often known as hubs, pods or clusters. They will work together for discussion-based activities and feedback to the main event via video link. Hubs enable remote participants to have a face-to-face experience and network with other participants from their local geographical area.

2　Dispersed model

In a dispersed model hybrid event, all of the remote delegates will be participating independently from their own locations.

3　Combined model

A combined model hybrid event will include some hubs groups and some independent participants.

Tools

Hybrid events often make use of a similar range of tools as those used in amplified events, but may also make use of:

- **Video conferencing facilities:** Janet Video Conferencing Service (JVCS), Skype.
- **Webinar software:** GoToMeeting.
- **Collaboration/discussion spaces:** Blackboard Collaborate, Adobe Connect.

Benefits

The benefits of a hybrid event can include:

- Reduction in time and expense spent travelling long-distance to attend the event.

- Opportunity for face-to-face interaction with a more local, focused group.
- Opportunity for richer engagement for remote participants through the use of video or audio-conferencing facilities.

Environmental Benefits

Hybrid events can reduce the amount of travel associated with an event for a proportion of participants, and therefore lower the overall carbon footprint of the event as a whole.

It is important to note that it can be difficult to measure the real term carbon reduction associated with hybrid events, as the reduction in travel enables financial savings for remote participants and their organisations. These savings may be spent in more carbon intensive ways, thus offsetting the original saving. This is known as a *rebound effect* (see Appendix 1).

Best Practice

- Consider offering a hybrid event where the proposed venue for the event is difficult to access by public transport.
- Promote remote participation primarily to delegates or speakers who would otherwise have to make lengthy journeys to attend the event in person.
- Provide sufficient support before, during and after the event to ensure that the hybrid event is a positive experience for all concerned, particularly those for whom it may be their first introduction to a new working practice.

Hybrid Events in Higher Education

Hybrid events are still emerging in UK higher and further education sectors. Part of the wider work of the Greening Events II project has examined the awareness of video conferencing facilities within institutions and use of these systems. Specialist equipment is predominantly used for meetings rather than conferences and workshops, but there are examples of conferences that increasingly offer hybrid experiences. JISC has been at the forefront of this trend.

7 Hybrid Events: Case Study I

JISC Conferencing for Universities and Colleges

The JISC Conferencing for Universities and Colleges conference was presented by the JISC-funded SusteIT project in collaboration with the EAUC (Environmental Association for Universities and Colleges) Travel Coordinator's Group, the Welsh Video Network and University of Warwick to discuss the potential uses and benefits of conferencing for universities and colleges. The event gathered together senior managers and travel coordinators with an interest in improving performance and minimising business travel.

The workshop featured presentations and contributions from several external events and speakers, including a panel presentation from staff at the University of Aberystwyth and a presentation from a SURF NET workshop in Utrecht, Holland.

Position on the Event Spectrum
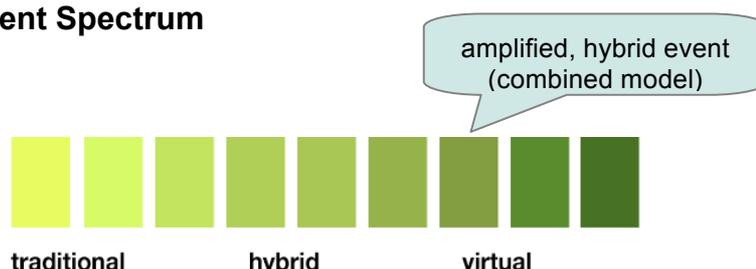
Figure 7: #unisvc workshop position on the event spectrum

How Was it Amplified?

Before the event:

- ⚑ All potential delegates were offered the option to attend in person or follow online via the Janet Video Conferencing Service (JVCS). Both options required the completion of a registration form providing delegate contact details.

- ⚑ The event hash tag (#unisvc) was promoted via Twitter shortly before the event.

- ⚑ Detailed instructions about how to participate remotely were circulated to remote delegates in advance of the event.

During the event:

- ⚑ A live video stream delivered via a choice of two services: the Janet Video Conferencing Service (JVCS) and TConsult Streaming (powered by Watershed/UStream). **Note:** During testing it emerged that some users were unable to access the JVCS system for technical reasons, so the organisers provided the alternative live stream as a backup to ensure access for all registered delegates.

- ⚑ A live Twitter commentary was delivered by the event amplifier.

- ⚑ There was an active group discussion between remote participants using CoverItLive.

- ⚑ The event amplifier monitored the event hash tag on Twitter and the CoverItLive session to respond to any issues and relayed questions from the remote audience to speakers during the appropriate question-and-answer sessions.

After the event:

- ⚑ A Storify summary [9] of the event was circulated via Twitter and emailed to registered participants.

- ⚑ Video footage of each presentation was made available by the organisers at the JISC Greening ICT YouTube account.

- ⚑ Speakers' slides were made available by the organisers at the JISC Greening ICT Slideshare account.

Engagement
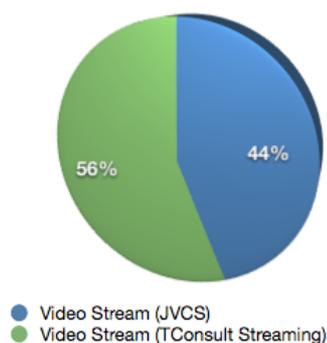
Figure 8: Live event engagement with #unisvc hybrid materials
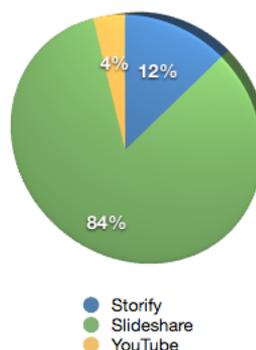
Figure 8b: Post-event engagement with #unisvc materials (April 2012)

Notes:

1   The JVCS video stream viewer numbers are estimated from the number of registered online delegates. The link to the TConsult Streaming video stream (powered by Watershed) was tweeted publicly during the event and attracted viewers who were not previously registered to attend online.

2   Videos were uploaded as "link-only" which means only people with a link to the specific video would be able to view. This is not recommended, as it prevents discovery.

Benefits

The hybrid nature of the event was based on presentations from four different locations, thus demonstrating the video conferencing facilities that were central to the theme of the event.

In addition, benefits included reduced time, expense and greenhouse gas emissions spent travelling to the venue at the University of Warwick, particularly for speakers at the University of Aberystwyth and speakers in Utrecht in Holland.

Financial Costs

The costs associated with the provision of the hybrid element of this event included:

⚐   Event amplifier/staff fee.

Provision of the backup live video stream incurred:

⚐   Live stream technician's fee.

⚐   Live streaming usage fee (charged per viewer per hour).

Note: The organisers deemed it to be mission-critical for all registered participants to access a live video stream of the event and therefore opted to pay for an additional live stream option as a safety net.

Support costs for the University of Warwick's video conferencing facilities were absorbed by the University of Warwick.

Use of the JVCS system is free for the UK Higher Education sector. All other services used were free of charge.

Evaluation

This event tested the role JVCS can play in the delivery of hybrid events. As a result, the Janet team will be expanding their activities in this area to stream out with more functionality. Facilities currently exist to stream out and record sessions, but they are developing a permanent streaming test system following this event to develop the platform further. This is a significant outcome for the event and for hybrid events in UK higher and further education, as JVCS is free of charge to all UK academia and research, and it is hosted on the Janet backbone, so will be better quality and lower latency than using servers in Canada or USA via the general Internet.

8   Rethinking Events

One of the outcomes from the Greening Events I project was the Rethinking Events report [10], which argued that there is a need to rethink the way we do events, including:

- ⚐ What they are and how we organise them.

- ⚐ Where and when we hold them.

- ⚐ Who is involved and who they are for.

- ⚐ How we can learn to meet the underlying needs currently met by events more effectively.

The authors acknowledge that events are part of the fabric of the operations of higher and further education, and many serve multiple purposes. They advocate a rethinking approach that questions whether an event is the most effective way to achieve the intended goals, and encourages organisers to consider how emerging technologies could be used to improve sustainability performance.

As an extension of this work, there follows a series of practical briefing documents to help event organisers rethink their own events and make use of amplified and hybrid event models.

9 Event Decision Template

This template is designed to help event organisers rethink their event to ensure that they achieve their goals as sustainably as possible.

To make use of this template, consider each step in turn when an event is first suggested to help choose the most sustainable option to meet your needs. If you are already committed to offering an event, skip straight to step 3.

1. WHAT AM I TRYING TO ACHIEVE?

 ➢ Outline your goals in order of priority.

 ➢ Do any of your goals conflict?

 ➢ Group together complimentary goals.

2. DO I NEED AN EVENT?

 ➢ Are there any non-event-based approaches that would meet specific goals or groups of goals?

 ➢ Can you combine activities with another organisation/group to meet your goals?

Choose: Hold an event   /   Use another approach

3. WHAT TYPE OF EVENT DO I NEED?

 ➢ Do any of your primary goals rely on face-to-face interaction?

 ➢ Could a hybrid or virtual event meet the majority of your needs?

 ➢ What barriers might exist to delivering a hybrid or virtual event in place of a traditional face-to-face event?

 ➢ How might these barriers be overcome?

Choose: Traditional event /   Hybrid event   /   Virtual event

4. SHOULD I AMPLIFY?

Can you further enhance your ability to meet specific goals by amplifying your event?

You should also consider amplifying your event if:

 ⌃ One of your goals is widespread dissemination.

 ⌃ A proportion of your potential audience cannot attend your event.

 ⌃ There are a number of overlapping interest groups who may attend your event.

 ⌃ Participants have taken responsibility for organising the amplification at previous events.

 ⌃ You have a core set of active Twitter users in the audience.

Choose: Amplify   / Don't amplify

10 Event Amplification Planning Template

The following template is designed to provide a focus for planning discussions for the amplification of a traditional, hybrid or virtual event. The resulting statement should clarify the reasons for amplifying the event, how this will be effectively resourced, identify any risks, highlight any gaps in the planning process and clarify how success will be measured.

Purpose(s):   Document the intended purpose(s) of the event amplification. This should include a summary of the main beneficiaries (which could be the local audience, remote participants, speakers, etc.).

Technologies Used:
Describe the technologies which will be used to support the purposes described above.

Resources: Describe the additional resources which will be needed to provide the event amplification.

Risk assessment:
Provide a risk assessment associated with the provision of the event amplification service.

Evaluation: Describe how you will evaluate the effectiveness of the event amplification.

Metrics: Describe the metrics you intent to collect in order to provide quantitative evidence of use of (and possibly value of) the event amplification.

Best Practice

It may be necessary to revisit this statement to make amendments and annotations throughout the planning process. It should not be a static document completed in one sitting at the outset of event planning, but fleshed out and adapted as issues arise.

It is important to revisit the statement shortly before the event and use it as a checklist.

11 Risk Analysis Checklist

When evaluating the risks associated with a particular online tool, it is useful to ask the following questions:

- ⚘ Will the service be performing a mission-critical role for your event?
- ⚘ Are there other services which could be used as a backup?
- ⚘ How well established is the service?
- ⚘ Is any planned down-time advertised during your event?
- ⚘ Is there a danger of damage to institutional reputation by using the service?
- ⚘ What is the risk of *not* engaging with the service?

Risks should be balanced against the benefits of engagement with your audience using the tool and any available mechanisms for mitigating or managing the risks.

Mitigating Risk

There are some simple best practice principles for mitigating risk when using online tools:

- ⚘ **Identify other options:** If there is an alternative service that could be used for mission-critical functions, make sure an account is established in advance so that you can make a quick transfer, should you need to do so. Do not leave it until something goes wrong with your preferred tool.
- ⚘ **Read the terms:** Make sure that you are using the tool within the supplier's guidelines.
- ⚘ **Prepare for problems:** Make sure that links to documentation, user information or customer support are to hand so you do not have to search for these materials during the event.
- ⚘ **Agree procedures in advance:** If there is a significant risk or managerial concern about damage to the institution's reputation, consider monitoring the discussions and having agreed procedures for responding to negative comments in a positive way.
- ⚘ **Choose the right tools for your audience:** Research your audience prior to the event to ensure that you have chosen tools they are likely to feel comfortable. This can help to ensure that time is not wasted in use of inappropriate online resources.
- ⚘ **Prepare for the future:**
  - ◦ Keep a record of the services used.
  - ◦ Use services that include an export function.
  - ◦ Keep a backup of all externally hosted materials.
  - ◦ Encourage ongoing use and social curation of materials.

12   Participant Perspectives

There are three major types of participants involved in an event that an organiser must consider when planning to create an amplified or hybrid:

- ⚓ Delegates
- ⚓ Speakers
- ⚓ Suppliers

Each of these participants will have a different perspectives and concerns that need to be addressed.

The following summaries provide an overview of some of the key issues surrounding each of these participants and outline some of the best practices to protect the interests of these groups when delivering an amplified event.

Delegates

Local or remote? Your target audience may not be under your nose.

You may find that you have up to three broad types of delegate to consider: a local audience, a remote audience following individually online, and a remote audience gathered in "hubs" to participate as groups. All of these audiences will be impacted by any online amplification of the event in different ways.

Provide Guidelines

All three audiences will benefit from clear guidelines explaining exactly what online resources will be available to them and how information about them may be captured if they take part. An example of this type of guidance can be found in the IDCC 11 Guidance for Online Participants [11], which was based on text developed by Kirsty Pitkin for the JISC Conference in 2011 [12]. This uses the following structure:

- ⚓ A statement of purpose.
- ⚓ A list of tools that will be supported, together with links to relevant resources.
- ⚓ Information about any audience data capture.
- ⚓ Advice to improve the experience of participation.
- ⚓ An Acceptable Use Policy.

This information may be presented as a web page for remote delegates or included in the chair's housekeeping notes for local delegates. Elements may vary between the two audiences: an acceptable use policy for the local audience may include reference to appropriate use of conference WiFi facilities, whilst the remote audience may need more information about how to ask a question during the live event.

Provide a Quiet Area

Some members of your local audience may be sensitive about their privacy or may be distracted by others making use of networked devices, such as laptops and smart phones, during presentations.

Offering a designated quiet area allows the local audience to make an informed decision about where to sit if they wish to avoid any of these distractions. Ideally, this area should also be a no-photography area and out of shot of for any video cameras so delegates can be confident that their image will not appear in any of the event coverage.

First Class Citizens

It is very easy to think of remote delegates simply as spectators. However, a hybrid or amplified event needs to actively engage this audience if it is to successfully compete with other distractions that may surround them and help them to feel valued as members of the audience.

As far as practically possible, the remote audience should be given the same opportunities as the local audience, including:

- A choice of sessions to follow, or the option to vote which sessions should be live streamed.

- Access to practical activities, including workshop tasks and other interactive elements of the event programme.

- Opportunities to ask questions in real time.

Speakers

> *Speakers can be your most valuable advocates when amplifying an event via social media.*

Some speakers will actively amplify their own presentations to help raise their profile in their field, which can help to amplify the event as a whole. However, it is important to remember that some speakers can be sensitive to their material and image being distributed online, so you must seek their permission before recording their presentation or sharing their content online in any form, including via a live video stream.

Seeking Permission

There are two possible approaches to seeking permission from speakers to distribute their presentation online:

1. Seek explicit permission through the signing of a waiver or by providing written permission.

2. Notify speakers of your intentions and offer the option for them to opt out or impose any caveats on the distribution of their materials.

Whilst the latter option represents the most logistically expedient method, there are a number of other factors to consider when deciding which route to take:

- **Precedent:** Are the amplification activities you propose common in this field?

- **Time available:** Have you allowed sufficient time to chase speakers for explicit consent prior to the event?

- **Existing agreements:** Have you already agreed contractual terms which should be taken into account?

It is advisable to advertise any live streaming or promise of post-event recordings as "subject to speaker approval" to help manage the expectations of the audience, particularly if you are not certain of the speakers' attitudes towards such activities.

Whether you choose to ask speakers to opt in or opt out, it is important to place a clear deadline for a response so you can choose whether to go ahead and how best to structure your online programme to take account of any sessions where permission has been refused.

Check Again

Check with your speaker immediately after their talk whether they are still happy for their talk to be made permanently available online or whether they would prefer you to remove any specific comments that may not be appropriate to share beyond the live audience. Offer to allow them to preview any video or audio recordings before they are made public and ensure that they have the public link so they can circulate this around their own professional and social networks.

Remote Speakers

It is not just the audience that can be remote at a hybrid event. Speakers can be asked to present remotely, particularly if they would otherwise have to make a long distance, high carbon journey to attend the event in person. There are various free tools to facilitate such presentations, including the Janet Video Conferencing Service (JVCS), Skype and a number of other Voice Over IP (VOIP) systems.

When preparing for a remote presentation, work with your speaker to ensure you have:

- An opportunity to test the technology and agree a protocol for chairing the session.
- A backup recording of their presentation (including their slides).
- A contact telephone number for use if the internet connection fails at either end.

Suppliers

There are lots of people involved in making your event happen. Get them on board.

Depending on the size of the event, there may be a number of external service suppliers who will be impacted by any plans to make the event available online.

External suppliers can include:

- AV suppliers
- Staging and lighting suppliers
- Venue representatives
- Photographers
- Invited journalists
- IT service providers

It is important to make clear to these suppliers what you are intending to do and how they may be impacted. Some suppliers may need to adjust their practices or supply additional services in order to facilitate your activities. For instance, your venue representative may need to arrange a wired internet connection to support live streaming, or staging and lighting may need to be configured slightly differently to accommodate the requirements of a video camera. Outlining these additional requirements early in your negotiations can avoid any confusion at the event and allow time to properly consider any compromises that may be necessary.

Rights

Suppliers that are creating an asset over which they will retain copyright control, such as professional photographers, will have concerns about how their materials are used online as part an amplified or hybrid event.

It is important to clarify how you can use these materials as part of your online activities and how they will be licensed for others to share or reuse.

Production Values

If you plan to host the recordings for future public or organisation use, you will need to consider the quality of filming and production values employed, and discuss these issues with both your host venue and your other suppliers.

13 Toolkit

This toolkit is designed to give an overview of the types of tools that can be used as part of an amplified or hybrid event, and some of the issues you may need to consider when designing your event strategy to include these tools.

Live Video Streaming Tools

A live video stream can give your remote audience a direct window into your event.

Tools Available

There are a number of different live streaming services available. The solution you choose may be based on your budget, the number of events you expect to live stream, and your technical requirements. Examples include:

- **Free services:** Janet Video Conferencing Service (UK HE/FE only), Justin TV (ad supported), UStream (ad supported).
- **Free (ad supported) mobile services:** Bambuser, Qik.
- **Pay-as-you-go services:** Watershed.
- **Subscription services:** Livestream, Adobe Connect.

Paying for a subscription or pay-as-you-go service usually removes advertising and allows greater flexibility for branding your event live stream, including the ability to embed the stream in your own web page.

Many live streaming services currently rely on Flash player. If it is important that your live stream is accessible on iOS devices, check this before choosing a streaming service.

Business Models

There are various business several models you can use when offering a live video stream to your delegates:

- Free and open access.
- Free, but sign up required.
- Pay for access.

Requiring viewers to sign up and provide contact details can reduce the number of viewers, but provides a mechanism for eliciting feedback, which can be very difficult to obtain if the stream is openly accessible. Pricing of access to a live stream will depend on the event sector. In some sectors, online delegates are not prepared to pay for access to a live video stream.

Equipment Required

- Web cam or video camera with a converter.
- Tripod.
- Microphone (for best results, use either a direct feed from the sound desk or a wireless lapel microphone).
- Headphones.

Software Required

No specialist software is necessary to make use of any of the services described above. However, if you want to add any effects – such as branding, holding screens or overlays – you may need to download additional software, such as CamTwist.

Human Resources Required

Minimum requirement: 1 person

If you are using a separate camera (rather than a static web cam) it is advisable to have one person operating the camera and a second dealing with the live streaming settings and responding to any technical queries from the audience.

Best Practice Recommendations

Before the event:

- ⚐ Seek permission from speakers, asking them to either opt in or opt out.
- ⚐ Circulate the link widely at least a week before the event to raise awareness.

Setting up:

- ⚐ Allow plenty of set up time.
- ⚐ Make it clear to the remote audience when you are testing.
- ⚐ Spend time making sure the audio quality is as high as possible.

During the event:

- ⚐ Tell the local audience what is happening.
- ⚐ Try to keep camera off the local audience.
- ⚐ Encourage the person chairing the event to address the remote audience directly.
- ⚐ Make sure that any audience questions will be audible to the remote audience.
- ⚐ Ensure slides are available separately, as they are unlikely to appear clearly enough on the stream.
- ⚐ Offer a separate channel for technical support issues and respond quickly to comments.
- ⚐ Offer a mechanism for remote viewers to ask questions.

After the event:

- ⚐ Ask for feedback immediately
- ⚐ Check with the speakers before publishing any recordings

Risk Analysis

Opportunities for risk include:

- ⚐ **Internet failure:** This can be mitigated by ensuring that you use a wired internet connection where possible and check the internet speed at the venue in advance. The ideal upload speed is 1MB/s. It is possible to live stream with less, but the higher the upload speed the better.
- ⚐ **Service failure:** This can be mitigated by having an account with an alternative live streaming service available to use as a backup option.
- ⚐ **Broadcast of inappropriate comments:** This can be mitigated by ensuring that your speakers and local audience are fully aware that you are live streaming, and by ensuring that the live stream is muted between presentations and during set up.

Twitter

With over 100,000,000 users, Twitter has emerged as one of the major forums for backchannel discussions at events. [13]

Tools Available

There are a number of Twitter tools that are specifically useful for events, including collection, analysis, and visualisation tools:

- ⚐ **Twitter Clients:** Hootsuite, Tweetdeck, Seesmic.
- ⚐ **Twitter Archiving Tools:** TAGS, BackUpMyTweets.
- ⚐ **Twitter Visualisation Tools:** TAGSExplorer, iTitle, Twitterfall, Visible Tweets.

Business Models

There are several models for the use of Twitter during an event:

- ⚓ Audience-driven backchannel discussions on an event hash tag.

- ⚓ Live commentary using an official event account and an event hash tag to annotate the hash tag discussions.

- ⚓ Facilitated discussions using an official event account and an event hash tag.

There are not mutually exclusive options, and different models may be suitable for different portions of an event programme. There may also be a business case for using visualisations and analyses of Twitter data after the event to demonstrate engagement and impact.

Equipment Required

Computer or mobile device with internet connectivity.

Software Required

Browser or Twitter client.

Human Resources Required

If you plan to offer a live commentary or facilitate online discussions you will need a dedicated person to operate an official event account. If the Twitter discussion is primarily audience-driven, a member of the event team could be designated to monitor the hash tag as part of a wider role.

Best Practice Recommendations

Before the event:

- ⚓ Choose an event hash tag. Keep it short and as self explanatory and possible, and use the Twitter search tool to check if it is already used for another purpose before promoting it for your event.

- ⚓ Establish a dedicated event or project account for use at the event, rather than a personal account.

- ⚓ Ensure the event Twitter account bio states the purpose of the account so people know what level of interaction/response to expect.

- ⚓ Ensure the event hash tag is promoted well in advance of the event and is clearly advertised at the event itself.

- ⚓ Research your audience to gauge their usage of Twitter in advance. You can do this by collecting Twitter names during the event sign up process, surveying similar events or learning from previous events in the same series. If the local audience seems unlikely to tweet, it may still be worth investigating whether there is a sufficient interest in the online community to make it worth reaching out via Twitter during the event.

- ⚓ If there is likely to be a lot of Twitter activity, consider offering a live commentary to annotate the discussion. This will help provide a context for anyone dipping into the hash tag stream.

During the event:

- ⚓ When providing a live commentary, make it clear who is being quoted so it is clear when a comment is reported and when it is a personal observation.

- ⚓ Avoid multiple authoring from the same account, as this can cause confusion.

After the event:

- ⚓ Make it clear when any event commentary has concluded and whether the event account will be monitored after the event. If it is not to be monitored in the longer term, ensure that the account bio and last tweet make it clear who to contact with any future comments about the event.

Risk Analysis

There are a number of risks to consider and address in advance when using Twitter to amplify an event:

- **Failure to engage fully:** This can result in audience dissatisfaction going unnoticed, missed opportunities to improve the delegate experience and spread event messages further.

- **Poor WiFi or mobile connectivity:** If you know your audience is likely to tweet, check that the venue has sufficient WiFi or mobile connectivity to support this. Many commercial venues charge high fees for individual access to WiFi, so it may be necessary to negotiate conference rates well in advance.

- **Inappropriate hash tag choice:** A clash between hash tags or an unfortunate choice of hash tag can cause embarrassment for the organiser and confusion amongst the audience, who will often suggest competing options. You can reduce this risk by checking your choice of hash tag thoroughly using a Twitter search and by checking any acronyms in a search engine.

- **Spam:** Popular hash tags can attract spamming activity, which may be inappropriate. However, most mature Twitter users can spot spam content and filter it out. If you have someone monitoring the hash tag they will be able to report any spammers to Twitter for them to take appropriate action (usually blocking the account).

- **Mob mentality:** On rare occasions the audience may engage in a negative critique of the speaker whilst a presentation is ongoing. Do not to show tweets on a screen behind speakers whilst they are talking, unless integral to the presentation and identify any controversial presentations so you can plan how to respond to any difficult situations that may arise.

Other Live Discussion Tools

There are people out there who don't tweet. Plan for them too.

Tools Available

There will be people who want to follow your event online and partake of the amplified discussions, but may not want to use Twitter for various reasons, or may not be able to access tweets through institutional firewalls.

There are several tools that offer alternative discussion spaces, and often allow tweets to be displayed as part of the discussion. Examples include:

- CoverItLive.
- Scribble Live.
- IRC (Internet Relay Chat).
- Skype chat.

Many live streaming and resource-sharing tools also offer an integrated chat window, which can be used for discussions.

These tools may or may not support fully amplified discussions, where comments may reach others within an individual participant's professional and social networks in real time.

Business Models

There are two ways you can use a discussion space within the context of an amplified event:

1. **Backup Discussion Space:** Where Twitter is the dominant space for amplified event discussion, alternative tools can provide a backup option for those participants who wish to record their comments or ask questions without signing up for a Twitter account. Actual discussion is usually fairly minimal in such circumstances and will not require the full attention of a moderator.

2. **Primary Discussion Space:** Whilst using such tools to facilitate online discussion surrounding an event will not help amplify messages from the event through the professional and social networks of participants in real time during the event, there is amplification value associated with keeping an online record of event discussions so future participants can understand the reactions and concerns of the audience at the time. Offering an online discussion space can help capture these discussions and amplify them across time to provide context and a variety of perspectives on other event materials.

Equipment Required

Computer with internet connection.

Software Required

None.

Human Resources Required

1 x moderator.

Best Practice Recommendations

⚑ The moderator should introduce themselves and establish the expected etiquette of the session by explaining how and when participants are invited to comment.

⚑ Where available, use a private messaging option to respond to technical issues so this does not disturb other participants.

⚑ Plan any online group discussion carefully. These work best with small groups of participants, aided by a skilled moderator and a focused task.

Risk Analysis

There are two main risks to consider when using an alternative discussion space as part of your event amplification plan:

1. **Fragmentation:** Using an alternative discussion space can lead to discussion becoming fragmented. If the tool is being used as a backup to an active Twitter discussion, then make sure that the audience on Twitter is aware of the discussions so they can contribute or give longer form responses.

2. **Visibility:** Discussions conducted within some of these tools may not be publicly accessible and searchable after the event. Ensure that you choose a tool which allows discussions to be exported in an accessible format and consider where this will be hosted to maximise the benefit of the record.

Resource Sharing Tools

Event materials can go viral. Make sure they can spread.

Speakers' slides and video content from your event may be useful resources that can be decoupled from the physical event itself. The use of popular resource sharing sites to host materials can increase their visibility beyond the immediate event community and their professional and social networks.

Tools Available

⚑ **Video Sharing Tools:** YouTube, Vimeo.

⚑ **Presentation Sharing Tools:** Slideshare, Authorstream, Speakerdeck.

Business Models

There are two models for incorporating shared resources into your event amplification plan:

1 **Organiser-driven:** Organisers commission professionally produced video recordings of events to share via an event or organisation account, and host any slides provided by the speakers on a branded account.

2   **Speaker-driven:** Speakers are encouraged to upload their own materials to sharing sites and to tag them using the official event hash tag, or to add them to an event group or album.

Equipment Required

Computer with Internet connection. Be aware of upload limits on your Internet connection before sharing larger resource files.

Software Required

None.

Human Resources Required

1 person, pre- or post-event.

Best Practice Recommendations

- Where a resource is embedded, provide an additional link back to the original resource in the event that the embed fails to load.

- Include links to other resources related to the presentation in the resource description, including the event hash tag, links to the event home page and links to any transcriptions of the presentation.

- If materials are uploaded or hosted by the organiser, ensure that you seek permission from the speaker and any other copyright holders, and share a link to the online resource with the speaker.

- Promote specific materials over time and resurface them at appropriate points (e.g. during events covering similar topics). Videos in particular can be costly to produce and represent a significant time investment on the part of viewers, so careful planning is needed to promote these materials and maximise their reuse.

- Monitor resource usage over time to identify the most popular tools in your domain for future events.

Risk Analysis

There are several risks to consider and address when amplifying resources online:

- **Speakers fail to upload, tag or link their materials effectively:** Make sure you provide clear instructions and offer to upload materials on the speaker's behalf if necessary.

- **Presentations contain images or quotes that infringe copyright:** Check with speakers whether they have included anything that may infringe copyright and acknowledge this accordingly. If you are planning to host presentations on an event account, make a clear statement in the description that all rights and responsibilities relating to the presentation remain with the speaker.

- **Video footage features people who have requested not to be filmed:** It is important to respect the privacy of your participants, so every effort should be made to omit or obscure anyone who has specifically requested not to appear in video footage or photographs at the event. Ensure that there is a clear mechanism for participants to get in touch if they find they have been included against their wishes and remove any offending material as quickly as possible.

- **Video footage features comments from the speaker that are not appropriate for broadcast to a wider audience:** Check with speakers immediately after their presentation in case they said anything they would rather were not made permanently available. Ensure this is edited out of the video footage before it is uploaded. Ask the speaker to approve the video before it is made publicly available if he or she has any concerns.

- **Video footage is not widely consumed:** Be realistic about the number of plays you expect for longer presentations and avoid comparisons with metrics from other resources which may involve less of a time commitment for the viewer. Plan to resurface video content at appropriate points and promote specific videos to encourage viewers.

- ⚲ **Sustainability of hosting/archiving service**: If the service used goes out of business or ceases to get funded and is not locally backed up you risk losing the original data and associated discussions and usage statistics.

Event Capture Tools

Amplifying an event through time helps to increase its long term relevance.

Event capture covers a range of activities that make your amplified event available more persistently into the future. These can include aggregating materials into one convenient resource, curating individual comments and materials to create a summary of the event, and archiving materials and conversations in an accessible form for future reference and analysis.

Tools Available

- ⚲ **Aggregation Tools:** Netvibes, ScoopIT, Paper.li.
- ⚲ **Curation Tools:** Storify, Timeline.
- ⚲ **Archiving Tools:** TAGS, Hootsuite.

Business Models

Each of these types of tool can be used to support the long tail of your event and encourage ongoing discussion of the issues. Analysis of a discussion archive or post-event materials can also help to inform the amplification and design of future events, making event capture an essential part of the business case for an amplified event.

Equipment Required

Computer with Internet connection.

Software Required

None.

Human Resources Required

1 person.

Best Practice Recommendations

- ⚲ **Be clear what you are collecting:** Provide an upfront statement about data you will be collecting about participants and how this will be used. If possible, let participants know how they can opt out of any event capture and remain purely "in the moment".

- ⚲ **Provide summaries and brief descriptions of the materials available:** There is such a thing as too much content. Amplified events can quickly become overwhelming if there is a plethora of materials and discussion. Summaries help participants and future viewers to make effective decisions about what to spend their time reading or viewing in more detail, and allows them to get an overview of the event themes.

- ⚲ **Acknowledge sources:** If you quote a participant or use speaker's copyrighted material in your event summary, ensure you acknowledge and link to the creator.

- ⚲ **Avoid auto-tweeting:** Some aggregation and curation tools automatically tweet updates about the materials, which some can find irritating. Write your own messages to promote materials, wherever possible.

Risk Analysis

There is one key risk involved in capturing an amplified event:

- ⚲ **Some participants may not wish their contributions to be captured:** This risk can be mitigated by issuing a clear statement in advance of the event advising what you intend to capture and how to get in touch in the event that they wish their contributions to be omitted.

14 Evaluation and Metrics

Social media tools may provide a wealth of metrics about viewer numbers and interactions to help you understand how your amplified event resources have been used so you can measure the increased impact of the event.

However, it is very difficult to obtain qualitative feedback about the event experience from remote participants using traditional methods. Online feedback forms usually have very low response rates from remote participants, and the nature of amplification means that the organiser will often have no mechanism to identify individuals who engaged with the resources online to approach them directly.

It is important to get feedback from the remote audience to assess the effectiveness of your event according to its core purposes and to evaluate your use of amplification so you can improve your approach for future events.

Strategies

Collecting qualitative feedback from the audience at an amplified event requires rethinking traditional event models, where you wait until the end of the event and ask participants to reflect on the event as a whole via a feedback form.

Useful strategies for collecting feedback include:

- **Collecting feedback throughout the event:** For example, you can use the Twitter "favourite" feature to bookmark specific tweets that provide useful feedback as the event progresses and analyse them later.

- **Using quick audience polls to answer specific questions:** Set a small number of clear, simple questions that would provide the most benefit to you as the event organiser and run polls throughout the day to elicit feedback from the remote audience.

Tools

In addition to collecting qualitative data, event amplification provides a unique opportunity to collect and visualise various data about your event. This can help to provide information about the event content (identifying popular speakers, themes etc.) and the success of your amplification activities.

There are a number of tools which allow you to access and visualise data about your amplified event:

- **TAGSExplorer** allows you to visualise Twitter conversations and connections.

- **Gephi** allows you to visualise a range of data types, including Twitter connections. This can help to demonstrate the reach of your amplified event.

- **Snagit** allows you to capture screenshots at timed intervals. This can be useful to supplement any live video-stream data, capturing viewer numbers at timed intervals to show to what degree the numbers of the remote audience have fluctuated throughout the event.

- **Service APIs (Application programming interface)** allow you to automatically pull data from a service to use in your own application. Services such as Twitter, Vimeo and Slideshare offer APIs.

Metrics

Most social media and sharing services provide basic metrics that help you judge how successful your amplification has been. Premium accounts often offer more advanced metrics, so it is important to review the information you can access when choosing the type of account you select for your event.

When collecting metrics to measure the success of an amplified event, it is important to consider:

- **What you want to know:** Most social media-sharing tools will provide usage metrics in some form. Just because you *can* collect this information, does not necessarily mean it

will be useful. Decide what it is you want to know about your event, and focus on collecting data that will inform you.

- ⚔ **Avoid making inappropriate comparisons:** Consider the unit of measurement you are using to ensure you are comparing like with like when judging the effectiveness of a tool.

- ⚔ **Consider the depth of experience involved:** It is important to consider how much weight to give to individual metrics based on the quality or depth of experience offered. You may find you have a very high number of views on Flickr and a low number of views on YouTube or Vimeo. However, the level of engagement with your event content involved in watching a video is significantly higher than looking at a photograph, and so the value of those interactions will need to be weighted as more valuable per view.

- ⚔ **Look for evidence of engagement:** Viewing a resource is a passive activity. Look for metrics which evidence the number of actions resulting from a viewing the resource, such as sharing, downloading or embedding.

15 Conclusions

This report has summarised current best practices associated with amplified and hybrid events in the higher education sector in the UK and provided examples of experimentation with these emerging event models. It has also provided tools to help event organisers rethink their own events and the ways they could use networked technologies to reach wider audiences without driving up the carbon impact of their event.

Further study is required to assess the long term impact of amplified events and their influence on delegate behaviour patterns to identify the full potential of amplified and hybrid events to reduce the carbon impact of events within the education sector. However, evolving best practice and experimentation by a wider diversity of events will help to establish an evidence base for this further study and expose more event organisers, speakers and participants to new ways of working that could provide an effective alternative to event travel.

Appendix 1: Environmental and Sustainability Impacts of Events

There is an increasing awareness of the negative environmental and sustainability impacts due to events across all sectors of the economy. They include contributing to climate change, non-sustainable use of resources, waste production, social and economic impacts on those within supply chains. To learn more about the wider impacts of events see the 'Rethinking Events: Greening Events in Higher and Further Education' report (Shabajee and Hiom 2011). Climate change is one of the highest-profile issues and one where ICT is often highlighted as a potential source of carbon-reduction.

Meaningful carbon footprint measurement is a complex and evolving practice and if you wish to footprint your event we recommend that you obtain specialist advice: see the 'Learning more About Sustainable Events' below. This short section gives a brief overview of some of the ideas and issues of which you need to be aware when thinking about carbon footprints of events.

Carbon Footprinting

Carbon Footprint Basics

- *Carbon footprinting* is a shorthand term for Greenhouse Gas (GHG) emission footprinting.
- GHGs effectively capture heat from the sun in the earth's atmosphere there is general consensus that GHGs created by human activity is leading to climate change.
- GHGs include carbon dioxide, methane, nitrous oxide and various hydrofluorocarbons (HFCs) which are all produced as part of industrial and agricultural processes.
- Different GHGs have different capacities to capture heat in the atmosphere, for example, over a 100-year period methane has the same Global Warming Potential as about 25Kg of Carbon Dioxide (CO_2).
- The standard unit for a carbon footprint is a kilogram of CO_2 equivalent, kgCO2(e). So that everything is measured in the same unit of impact as, all GHGs were represented in equivalent CO_2 values.

Carbon Footprints of Goods and Services

- The *total* carbon footprint of any good or service is the sum of all GHG emissions associated with it over its whole *life cycle*, e.g. for goods these include: resource extraction, manufacture, distribution, retail, use and end-of-life (disposal, recycling, energy production, etc.).
- This will include an allocation of contributions from shared resources such as buildings, transport infrastructure, vehicle production, internet infrastructure, etc.

Why You Need To Seek Advice When Considering Carbon Footprinting

- It is a complex process and in practice many simplifications are made, such as not including all possible GHGs, not including shares of all components of a life cycle, etc.
- Understanding what a particular value of a 'carbon footprint' actually means is often difficult.
- For highly complex goods and services such as *events* and *IT services* this is particularly true, for example: There is *no technical standard for carbon footprinting of events that enables comparison between the numerical footprints obtained for different events*. There are *no agreed standards for accurately estimating the footprint of using internet based services*.

This is why we recommend seeking specialist advice when considering carbon footprinting or interpreting the carbon footprint results of third parties.

Below we illustrate the kind of basic calculations that are involved in making estimates of carbon footprints for physical and remote event attendance.

Example of Estimating Carbon Footprints of Delegate Transport

One of the largest GHG emissions components of holding many kinds of face-to-face event is the transport of attendees – all forms of transport require energy and in general that energy is produced using fuels that produce significant GHG emissions.

For each delegate that physically attends an event – it is possible to estimate the carbon footprint due to their transport. This is simply the total of all the emissions due to each phase of their journey. For each stage it is possible to estimate the carbon footprint using standard figures for kg of Carbon Dioxide equivalent ($kgCO_2(e)$) per mile (called an emission factor) multiplied by the number of miles.

To take a specific example: a delegate physically attending the Hybrid Event: Case Study 1 in Warwick who travelled from Bristol. The estimated carbon costs are given in Table 1.

Journey Stage	Mode of Transport	Distance (km)	Emissions Factor (kgCO2(e) per km)	CO2(e) emissions estimate (kgCO2(e))
Outward Stage 1	Bicycle	2.09	0	0
Outward Stage 3	National Rail	179.1	0.065	11.6
Outward Stage 4	Taxi (single passenger)	4.2	0.212	0.9
Return Stage 1	Taxi (single passenger)	4.2	0.212	0.9
Return Stage 2	National Rail	179.1	0.065	11.6
Return Stage 4	Bicycle	0.32	0	0
			TOTAL	25.0 kgCO2(e)

Table 1: Estimated carbon costs for case study 1

Table 1 shows how the estimate is calculated. We use two Web services to gain distances – for train journey http://www.travelfootprint.org/ and for the taxi http://maps.google.co.uk/. The emission factor for each mode of transport is taken from standard values defined by Defra [14] these values are founded on a number of assumptions, e.g. they assume a given level of occupancy in a train, they do not include biogenic CO_2 emissions caused by the 'burning' of food to power the bicycle.

These values are based on averages and are appropriate for carbon accounting as defined by Defra. However more accurate estimates are obtainable by using more detailed data, such as actual occupancy of a train or taxi, actual models of train and taxi, etc. See for example http://www.travelfootprint.org/.

If the same person had driven in a car the equivalent would have been:

Journey Stage	Mode of Transport	Distance (km)	Emissions Factor (kgCO2(e) per km)	CO2(e) emissions estimate (kgCO2(e))
Outward	Car (medium petrol car, no passenger)	147	0.250	36.8
Return	Car (medium petrol car, no passenger)	147	0.250	36.8
			Total	73.5 kgCO$_2$(e)

Table 2: Estimated carbon costs for travel by car for case study 1

This particular event had no physical attendees travelling from abroad, there were remote attendees from Canada, Australia, Sweden and the Netherlands. If these attendees had physically attended their emissions would have been higher than UK attendees for example:

- Amsterdam (Netherlands) would be an approximately. 900km return flight to Birmingham (the local airport) with an emission factor for flying of 0.11 $kgCO_2$(e) per km or about 99 $kgCO_2$(e) + other travel to and from airports.
- Australia it would be about 17,000km each way, with an emissions factor of 0.09 $kgCO_2$ (e) per km total 3060 $kgCO_2$(e) + other travel to and from airports.

Example of Estimating Carbon Footprints of Remote Attendance

Remote attendance of the form used at the Warwick event basically involves set of components like that illustrated in Figure 9.

The total carbon footprint would be the sum of the emission due to all of the use of the equipment in that system – including some small share of the whole life-cycle footprints of all of the equipment, maintenance, etc. for all the components. Here we simply illustrate the kind of values that arise from the *direct electricity use of the devices* involved. We will only look at the user consumption phase, that is emissions due to the remote participant viewing the video stream. We assume the attendee is attending from home and is using a DSL internet connection and domestic network router. If we were to include the video upload phase the emissions would be divided by the number of remote delegates viewing at a given time.
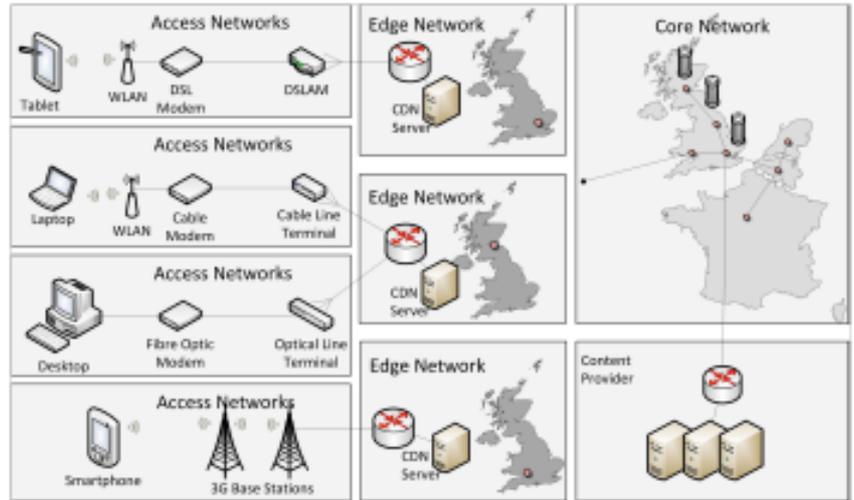

Figure 9: Example components of remote attendance via streaming video

Let us take the Watershed video streaming service as an example. The event was videoed in Warwick. The data was streamed to the Watershed video servers in this case probably in California and hosted there. A delegate attending the event via the Watershed video would use their computer to access the stream via the Internet and this would be streamed to them from California.

Figure 10 shows an example 'trace route' output that contains a list of internet hops from the delegate in Bristol viewing a Watershed video.


```
C:\Windows\system32>tracert 199.66.239.97

Tracing route to flash68.ustream.tv [199.66.239.97]
over a maximum of 30 hops:

1     2 ms   <1 ms   <1 ms  192.168.1.1
2    18 ms   99 ms    99 ms  192.168.5.254
3    19 ms   19 ms    19 ms  losubs.subs.dsl1.th-lon.zen.net.uk  [62.3.84.17]
4    35 ms   19 ms    19 ms  ge-0-0-0-113.cr2.th-lon.zen.net.uk  [62.3.84.181]
5    19 ms   19 ms    19 ms  xe-0-4-0-7.r02.londen03.uk.bb.gin.ntt.net  [83.231.235.229]
6    32 ms   44 ms    30 ms  ae-4.r22.londen03.uk.bb.gin.ntt.net  [129.250.5.24]
7    89 ms   90 ms    90 ms  as-0.r22.nycmny01.us.bb.gin.ntt.net  [129.250.3.254]
8    88 ms   87 ms    90 ms  ae-0.r23.nycmny01.us.bb.gin.ntt.net  [129.250.3.73]
9    98 ms  107 ms   107 ms  ae-1.r20.asbnva02.us.bb.gin.ntt.net  [129.250.2.9]
10   92 ms   93 ms    96 ms  ae-0.r21.asbnva02.us.bb.gin.ntt.net  [129.250.4.5]
11  185 ms  198 ms   184 ms  ae-4.r20.snjsca04.us.bb.gin.ntt.net  [129.250.4.103]
12  173 ms  172 ms   175 ms  ae-1.r06.snjsca04.us.bb.gin.ntt.net  [129.250.5.13]
13  172 ms  166 ms   170 ms  xe-0-0-0-4.r06.snjsca04.us.ce.gin.ntt.net  [128.241.219.130]
14  168 ms  169 ms   168 ms  border3.pc1-bbnet1.sje.pnap.net  [66.151.144.9]
15  164 ms  165 ms   164 ms  ustreamtv-11.border3.sje.pnap.net  [66.151.145.226]
16  163 ms  170 ms   174 ms  flash68.ustream.tv  [199.66.239.97]

Trace complete.
```

Bristol (UK)

Colorado (?)

San Francisco (?)   Georgia (?)

Figure 10: Example of a traceroute for viewing a Watershed video stream

The data volume was about 195MB/hr (434kbps on average). Using estimates for the energy use in Watt hours (Wh) of the various parts of the system based on a model developed as part of the Sympact Project[3], based at the University of Bristol, we find that the breakdown of energy use is roughly as shown in Table 3.
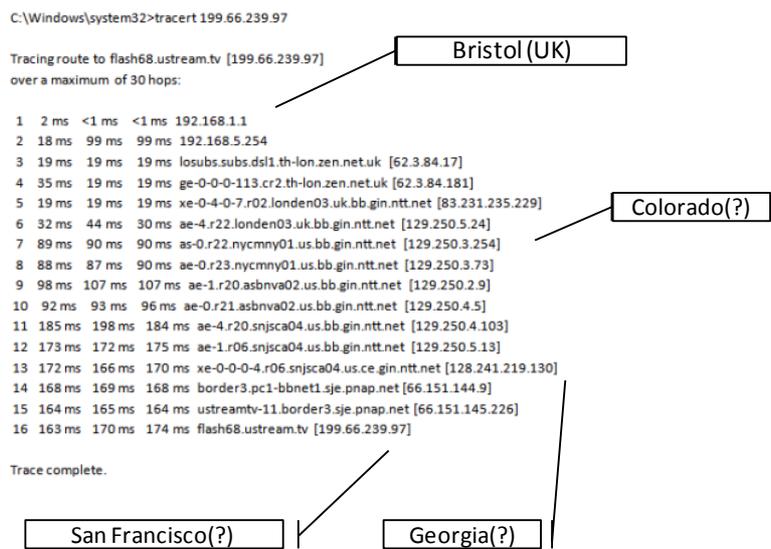
---

[3] http://sympact.cs.bris.ac.uk/

Scenario	Indicative Energy Consumption *per Hour* for Remote Attendees Values from Sympact Project Model (Watt hours)					Total GHG Emissions Estimate (*for 5.25hrs*)
	Server Energy (Wh) [San Francisco]	Network Energy (Wh)	Domestic Router (Wh)	End User Device Energy (Wh)	Total Electrical Energy (Wh)	$CO_2(e)$ emission estimate ($kgCO_2(e)$)
User (Desktop)	0.93	4.8	10	140	156	0.48
User (Laptop)	0.93	4.8	10	32	48	0.15
User (Tablet)	0.93	4.8	10	3	19	0.06

Table 3: Estimates of energy use

We show three scenarios. They are all based on *average values* the range of values in each category, e.g. for Desktop Computer (inc. screen) the range is about 18W to 640W, so the values are very dependent on the actual devices. The event lasted 5hrs15min so if we assume that an attendee streamed the video for the whole time although our evidence is that in general they do not, see the IDCC11 case–study for more details.

To convert between energy and GHG emissions it is necessary to know the emissions factor for the electricity used at each stage – that this the kgCO2(e) per Watt hour of electricity. This is a complicated for the internet components as they are in many different regions that have different emissions factors for around the world. For the UK the average emission factor given by Defra is 0.59kgCO2/kWh. The figure for the USA is of the same order and given the approximate nature of these estimates we can use the UK figure as Indicative.

These values are very much lower than for the physical travel which the public transport scenario above estimated as 25kgCO2(e) where as for the desktop scenario here is about $0.24kgCO_2(e)$ for electricity use. The values of energy from the Sympact project are in agreement with similar research projects. However if we want to take a *very conservative* approach and seek an upper bound on the likely emissions for video streaming from other sources; for example we can use an upper bound figure for the Wh/MB (Watt hours per MegaByte) for the streamed video footprint for combined data centre and internet use, we find an upper limit of 16Wh/MB [15]. We can combine it with our desktop scenario and we obtain a value of about 10kgCO2(e) for a remote attendee. This number is almost certainly far too high but does give us an upper bound.

These illustrative estimates are based on very significant simplifications and therefore are not accurate. They do however provide some sense of scale for relative direct GHG emissions from physical and remote attendance where distances would involve significant transport. That is not to say that it is not possible to arrange transport to be very highly efficient, e.g. high occupancy of public transport can dramatically reduce transport emissions.

Energy and Carbon Footprints of Amplification

There are many other contributions to energy use and wider carbon footprint from an amplified event, these include:

- Video conferencing equipment
- Upload of video to streaming servers
- Physical attendee equipment use – to access and post Twitter feeds, etc.
- A share of emissions due to online services by attendees and others such as Twitter, CoverItLive, Storify, etc.
- A share of host venue networking infrastructure related emissions
- Emissions due to hosting and serving of any content prior to or beyond an event, such as hosting of video or presentation files, event website, etc. These can be significant if they are hosted and served in perpetuity

The next section explains why even when all of these factors are added up the actual estimation of 'savings' from attending remotely rather than physically may be very significantly lower that they appear.

Why Savings May Not Be What They Seem

While it seems that the emissions for remote attendees are very much lower than for physical attendees because of transport related emissions alone. This is not necessarily the case for the following kinds of reason:

- **In attending remotely a significant amount of *money* may have been 'saved'**. The carbon emissions of the spending of that money will therefore potentially offset some of the 'savings'.
- **In attending remotely a significant amount of *time* may have been 'saved'**. The carbon emissions of the 'additional' activities undertaken because that time is now available for other productive work may offset savings.
- **Travel may not have been avoided but simply displaced**: For example attendees often combine attending events with other meetings in the same geographical area or with those who are also attending. Such meetings may simply take place at a later date with consequent carbon impacts which may offset the original savings.
- **Incidental outcomes of attending meetings may not be met, inducing further activity:** e.g. events may have many planned for outcomes such as making decisions or sharing information but also many incidental outcomes such as, informal networking and 'business intelligence' seeking, maintaining social ties, initiating collaboration, informal job seeking and recruitment, etc. These may need to happen in other ways, again potentially offsetting original savings.
- **Other activities and innovation may be stimulated:** For example the convenience of remote attendance, virtual meetings and benefits of amplification may stimulate additional meetings, virtual and physical, and demands for ever better video and audio resolution, 3D/holographic displays, etc. that may significantly increase carbon emissions due to infrastructure use as well as direct emissions.

These are example of 'rebound effects' and, in the latter case, systemic effects that make understanding the net impact of a change in behaviour – e.g. shifting from physical to remote event attendance – highly problematic.

Learning More About Sustainable Events

The Greening Events bibliography contains references to a wide range of sources of information about sustainable events and carbon footprinting [16].

As a starting point for seeking advice most academic institutions will have departments that are responsible for environmental and sustainability management across the institution and may be able to provide advice, guidance and in some cases active support and may be able to direct you to appropriate third parties where necessary.

References

[1] *Rethinking Events: Greening Events in Higher and Further Education*, P. Shabajee and D.Hiom, <http://greeningevents.ilrt.bris.ac.uk/files/2011/06/Rethinking-Events.pdf>

[2] *IDCC 11 Lanyrd Event*, <http://lanyrd.com/2011/idcc11/>

[3] *IDCC 11: What Did You Say?*, Storify, <http://storify.com/eventamplifier/idcc-11-what-did-you-say>

[4] *IDCC 11 Video Gallery,* The Digital Curation Centre, <http://www.dcc.ac.uk/events/idcc11/video-gallery>

[5] *IDCC 11 Flickr Collection*, Flickr <http://www.flickr.com/photos/digitalcurationcentre/collections/72157628400729427/>

[6] *Metrics and Social Web Services: Quantitative Evidence for their Use and Impact*, 11 July 2011, <http://www.ukoln.ac.uk/web-focus/events/workshops/eim-2011-07/>

[7] *Metrics and Social Web Services: Quantitative Evidence for their Use and Impact*, Storify, <http://storify.com/eventamplifier/metrics-and-social-web-services-quantitative-evide>

[8] *Event Report: Metrics and Social Web Services Workshop,* UK Web Focus blog,18 July 2011, <http://ukwebfocus.wordpress.com/2011/07/18/event-report-metrics-and-social-web-services-workshop/>

[9] *Conferencing in Universities and Colleges*, Storify, <http://storify.com/eventamplifier/conferencing-in-universities-and-colleges>

[10] *Greening Events Final Report*, ILRT, 17 June 2011, <http://greeningevents.ilrt.bris.ac.uk/2011/06/17/greening-events-final-report/>

[11] *IDCC 11 Guidance for Online Participants*, The Digital Curation Centre, <http://www.dcc.ac.uk/events/idcc11/guidance-online-participants>

[12] *JISC Conference Amplification Guide*, JISC, <http://www.jisc.ac.uk/events/2011/03/jisc11/amplificationguide.aspx>

[13] *What is Twitter?* Twitter Inc, <http://business.twitter.com/en/basics/what-is-twitter/>

[14] *Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting*, <http://archive.defra.gov.uk/environment/business/reporting/pdf/110819-guidelines-ghg-conversion-factors.pdf>

[15] *Energy Use in the Media Cloud: Behaviour Change, or Technofix?*, Priest, C. and Shabajee, P. Cloud Computing Technology and Science (CloudCom). doi:10.1109/CloudCom.2010.40 <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05708503>

[16] *Annotated Bibliography – Greening Events Project*. Shabajee, P. and Curtis, H. <http://greeningevents.ilrt.bris.ac.uk/files/2011/05/Greening_Events_Bibliography_2505111.pdf>