

Three important steps to successful online conferencing

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What is online conferencing?

The conducting of live conferences, meetings, seminars and training over the Internet is one of the new media that we hear so much about. It's so new that it's common name is not yet settled, so you may hear it called by different names such as webinars, web conferencing, online meetings, and the more technical jargon VoIP (Voice over Internet Protocol).

It has many potential benefits. Online conferencing is cheap, 'green', and above all it saves time. It can also enable a richer experience in meetings, and continuing value afterwards via recordings.

As with all new technology, while there may be a net gain there are some specific pitfalls to watch out for. This page describes the three areas where users repeatedly encounter problems. Overcoming them is not rocket science; simply a question of small adaptations. The advice is deliberately generic and 'technology agnostic'.

STEP 1: Ensure good sound quality

If people can't hear what is being said, then the event is useless. Moreover it makes everyone tired, stressed and possibly confused.

Many laptops, tablets and PCs come with a built in microphone and speakers and it's very tempting to try to use these. They are just about OK if you are having a one-to-one with your aunty in Australia, but not good if you are having an important Board meeting with 20 people.

Here are the reasons to avoid this easy option:

Built-in microphones are both poor quality and 'omnidirectional', which is technical speak for pick up every sound in the room, including the printer, gurgling coffee machine, colleagues talking and fire engines whizzing by outside. Your voice will just be somewhere in all that noise and, depending on the room's acoustics, it may sound like you are speaking from a toilet.

Many people open emails and do other 'stuff' during on-line meetings. However, your fingers banging on the keyboard will be transmitted by the embedded microphone, which will sound like a stampede of wildebeest have just entered the meeting.

The close proximity of built-in speakers and microphone can lead to echo as what comes out of the speakers goes into the microphone and gets re-transmitted to the speakers. It can even result in that horrible loud 'feedback' squeal that most of us will at some time have suffered when using microphones and loudspeakers in a conference hall.

The answer is slightly inconvenient, but is the only way to overcome the problem. Insist that every participant uses a headset: that is headphones with a built-in microphone. They are designed for the task and will pick up your voice and very little else. I have known delegates apologise for ringing phones and fire alarms that were not a problem to the meeting as their headset microphone was hardly picking them up. Even a cheap headset will give you sound quality that is vastly superior to the best phone line, and better than many a badly-designed conference room. If you are going to meet on-line a lot you might even splash out on a ridiculously expensive top of the range headset. Say fifteen quid.

Test the sound quality of any new participant or any new or changed computer or network set-up well before a live event. This is not a specific problem of the new media, but a fundamental for managing the use of any technology. How many times have you sat, patiently or otherwise, at an event while a speaker apologised for a delay due to a 'technical hitch' with the projector or the sound system? Maybe it was even you. Shame on you for not testing the set-up in advance. The sound set-up on computers varies and, despite the claims of manufacturers, is not yet 'plug and play'. Various software applications can interfere with the sound configuration and some can even commandeer the hardware to the exclusion of the conferencing application.

STEP 2: Minimise latency

OK this is a 'techie' one to explain, but if the explanation leaves you blank, just follow the advice.

The way that the Internet works as a global network is by dividing everything up into 'packets' and addressing them; ironically rather like postal mail. The Internet then delivers the packets, some of which may go via a different route to others, and even arrive in the wrong order. The receiving computer re-assembles the packets, rather like you might re-assemble the numbered pages of a document, into whatever the data started out as: an email, a slide, or your voice. This process of disassembly, transmission, and reassembly takes time. If the item transmitted is a document or a web page you don't notice, but if it is a 'real time' item like a live

conversation then the delay is called 'latency'. Latency is the reason why, if you listen to the radio over the airwaves and via your computer, what comes out of the computer is a second or so later than what has been broadcast through the 'ether'. In a two-way conversation the latency is effectively doubled which is why you sometimes see a news correspondent live from elsewhere in the world be asked a question and take an age in starting their reply.

The problem in conferencing is that this latency delay can be increased ad infinitum by a number of factors. Some of these factors need only affect one user for the whole meeting to experience unacceptable latency. By unacceptable I mean several seconds between someone starting to speak and the others hearing them. This means that several people can start speaking and it only becomes apparent after several seconds that they are all talking at once. Also, someone may ask a question and think no-one can hear them as there is no reply within the expected time.

There are two basic causes of increased latency: bandwidth and packet loss. Bandwidth is easy to understand: it's the capacity of the 'pipe' that connects us to the internet. Most of us understand because we get a bill for it each month. In reality, any broadband connection should be usable; even a 0.5 Mb user can participate happily in conferences providing they don't waste the bandwidth, such as by using video or sending large files.

While we're on the subject, nine times out of ten video does not add anything to the meeting. Some people do it just because they can. Others think it will replace the ability to see facial expressions and body language and create something akin to a physical meeting. This is not true. In a physical meeting your gaze moves around the room and focuses maybe on someone's eyes, or someone else's hands, taking in subtle clues. A fuzzy head and shoulders web cam simply cannot replicate this and loss of body language is one of the drawbacks of the technology. Live with it: just as you do when using a telephone. Switch the video off and you reduce latency, which is much more important.

In many systems you can replace body language with icons and 'emoticons' that enable people to tell you things without interrupting the meeting. They take up so little bandwidth that their effect is zero. Icons can also be used so that you can see on screen who is talking, and even who is waiting to speak. Once you get used to them they are much better than body language as you control them and they are not prone to misinterpretation.

Many systems can be set so that talking is on a 'one person at a time' basis, via an on-screen microphone button or keyboard key. In some configurations delegates can't speak until they have raised their 'hand' icon and been given the floor by a moderator. This one at a time set up not only reduces the bandwidth requirement drastically, but also prevents every delegate adding their background noise into the event. Some people try to achieve this with voice-activated microphones but my experience is that these will be switched on by doors banging or fire engines rushing by, and also, more embarrassingly, by delegates coughing and sneezing: or worse. They help to reduce redundant noise and bandwidth, and will probably catch on, but you are reliant on every delegate's set-up being good. I know from experience

that people soon get used to pressing a button to speak. After all that's what pilots and air traffic controllers have to do.

The most frequent and most damaging cause of latency is packet loss. Imagine a careless postman with a hole in their sack through which some packets fall out and are lost. Your system has to ask for the missing packets to be re-sent and wait for them to arrive (they may even get lost twice or more) before it can reassemble them into a recognisable voice. Different systems may handle minor packet loss differently: some will wait until everything is perfect, while some may go ahead and reproduce distorted sound or 'pixellated' slides and images. Eventually though, latency will appear as long sound delays, which make meetings impossibly fragmented. As an emergency measure impose a few seconds of complete sound disconnection while the system catches up and the latency gap is closed.

The only good thing about latency is that it does not normally appear on the recordings of meetings as the recordings are digital and all the data is there.

The cause of packet loss is network connections. Rarely is it the the hard-wired ones, unless they are faulty. It is almost always because one or more participants are on a wi-fi or a GSM/3G 'dongle' or some such wireless connection where packet loss may easily be as high as 30% due to losses in the radio transmission segment. Imagine life if your postman lost 30% of the mail you sent and received!

It is possible to conduct on-line meetings on a really good quality wi-fi connection where you have exclusive use and the base station is nearby. If you are on a hotel wi-fi or mobile phone dongle – forget it. No matter how great the bandwidth. Your meetings will be a disaster. Again the answer is to always test, using exactly the same set-up as the meeting, before having meetings for real.

STEP 3: Adapt your meeting management

New media require slightly different ways of working. Not only does the technology impose some opportunities and constraints, but also people's behaviour in this medium is different than physical meetings. You need to understand and adapt to the psychology of users within this environment as you can't force them to behave in an unnatural way.

One obvious howler is that your delegates may be joining from different time zones. You need to research and get familiar with how time zones work and how to specify a meeting start in terms that delegates will understand. Automated messages from conferencing systems can fail to allow for Daylight Saving Time or may simply give GMT or UTC time. Humans get time zones wrong, especially with countries that have several such as the US. Check by using one of the online time zone web sites, and then double check by having a rehearsal or calling your delegates and asking what time it is there.

I'm going to unashamedly hammer home yet again that any tendency towards lack of preparation and technical rehearsal will result in problems. This not only applies to speakers, who may turn up with slide presentations containing hundreds of high-definition images of 10Mb each, but also to delegates who will attempt to join your meetings from a crowded and moving train, with no headset, and using the on-board GSM-based public wi-fi. They are the same ones who will insist on proudly demonstrating, for the first time ever, their new tablet computer's web cam. You need to manage this ruthlessly.

First time users are a special case. I can guarantee that unless they have had an induction to whatever system you are using they will begin with 'can you hear me?' which tends to lead to a show-stopping pause in the conversation, broken by a more plaintive 'Can anyone hear me?' followed sometimes by an aside to a colleague, that we can all hear because their microphone is still on: 'hmmm...doesn't seem to be working, I don't think anyone can hear me'. The answer is to invest time in one or two practice meetings until all the users are happy and confident with the technology. Only then can you get on with having productive meetings.

As there is always the the potential for problems, whether unexpected or predictable, and as many systems allow questions and feedback via parallel media, the workload of a chair person in a moderate-sized meeting can be overwhelmingly high and full of distractions while you are speaking. It is a good idea to appoint both a 'chair' – who follows the thread of the conversation and controls the agenda, and a 'moderator' – who assembles incoming questions and comments into a coherent pattern, resolves technical problems, including off-line via texts and phone calls, and deals with any specific delegate issues. For larger meetings involving 20 or more delegates I would even consider multiple moderators to deal specifically with questions, technical issues, requests to speak etc. This approach enables you to have very professional and efficient meetings and to really reap the benefits of the medium in terms of effectiveness and efficiency. Online meetings are faster and more intense; and that is part of the attraction.

The uncertainties of travel forces us to allow a time buffer when attending physical meetings, so delegates may arrive during the half an hour or more before the start time, depending on the distance. Delegates tend to enter online meetings in the final seconds before the appointed hour. Some will get distracted or hit log-on problems and consequently enter a few minutes late. Asking people to join, say, ten minutes beforehand and making some polite conversation with them, such as conducting 'round robin' introductions, or always beginning with some jokes and joshing, will encourage people to join in good time for the start.

If you are running regular meetings, never start late. This applies even if delegates are missing that you know are coming. There is an impatience among other delegates who have to sit doing nothing and next time they will log on a few minutes after the start to avoid wasting time. It's a bit like going to the cinema with measured lateness in order to miss the advertising and trailers. While you are making them waiting for the latecomers delegates will be resolving to log in later next time...and so on..and so on. All of us have better things to do than sit silent and motionless in front of our computers, so you need to establish that if they

arrive late will miss the start and that there is useful or entertaining information from the moment they join.

This brings me to multi-tasking, which is almost never done in important physical meetings, and is regarded in most circles as rude and disruptive. Online meeting delegates will be checking their emails or browsing the web to look up things being discussed in the meeting, or even answering the phone or going off to the toilet. Many conferencing systems allow delegates to send private messages to each other so there may be several side conversations going on at once of which you are unaware, unless you are involved in them.

This is actually one of the unexpected productivity advantages. You can attend meetings without completely stopping other work or being shut off from the external world. It can bring advantages too, in that claims and assertions of delegates can often be researched and confirmed or refuted by other delegates during the meeting. You have to take care that the meeting proceeds at a lively pace, or your delegates' divided attention will increasingly be outside the meeting.

As well as reducing latency, speaking one at a time is also a good meeting discipline as it prevents some people dominating the meeting by interrupting or talking across others. An advantage of the medium is that people can't start multiple verbal conversations with neighbours, as often happens in physical meetings. If you are chairing a meeting you need to try to involve everyone. On-line this can be more difficult because you can't ask a general question and then look around the room to 'catch someone's eye' (another reason video doesn't work). Instead you need to ask people specifically for their views and even to say things like 'I'd like to bring X in at this point'. Many systems allow you to 'put up your hand' via the icons or emoticons, so you can ask for a show of hands. Others allow formal voting which can be anonymous or public and can be recorded or not as part of a record of decision-taking.

Finally, it should go without saying that you should not forget the basics. I'm not about to tell you how to manage meetings, but it is surprising how often people get mesmerised by the technology and forget old-fashioned meeting management.

Getting started

If you don't yet have a conferencing system then a quick Internet search will reveal dozens of systems to choose from with greater or lesser costs and functionality, from high end 'hosted' solutions where the vendor provides a high-capacity connective infrastructure, to the low-end, basic, and even free ones, such as Skype, that use your infrastructure and you take pot luck. Paid for systems can be 'per seat' or 'bucket of minutes' or a one-off software licence. The more expensive can be negotiable, while the cheaper mass offerings are normally to a fixed model and cost.

Selecting a system is a question of identifying your requirements (some of which may be wishes that are not currently being met) researching what is possible and how much it costs, and then balancing your needs and budget with what's on offer, and finally trialling a short-list of two or three.

There is no substitute for gaining experience, both of the technology and of your own way of working with it, so using free or low-cost services as an experiment to substitute for a few low-level meetings is better than buying an expensive system and then running a global conference as your first event.

Special note: Hybrid meetings

Online conferencing is designed on the assumption that each user is sitting at their own computer. Some organisations have a genuine requirement for hybrid meetings in which some people are having a physical meeting in a room, while others are joining them remotely. This is a unique and more tricky variant as you have to actively prevent things that cut across the two disciplines. For example people must not speak in the room unless they 'have the microphone', and must not start side conversations. This is one situation where video is useful so that remote delegates can see what is happening physically in the room, such as someone arriving or leaving. A video projector and large screen is also required so that physical delegates can see who is speaking and understand the online and on-screen controlled portion of the meeting.

Hybrid meetings can work, but need special management and equipment, and some gentle behaviour control of delegates which may be more or less difficult. Hybrid meetings are best left until you are comfortable with the online environment, rather than being a kind of half-way house in which to 'dip a toe into the water' or 'have a foot in both camps'. To extend the English metaphor, you are far more likely to 'fall between stools'.