Is your head in the clouds?

Michael Pilling* introduces cloud computing and explains how it can be used to share information within the general dental practice.

Michael Pilling

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over 22 years in the UK and abroad. From 1995 he became a practice manager achieving a Diploma in Practice Management and a Diploma in Management and becoming a Member of the Chartered Management Institute. He then took on the role of NVQ Coordinator for Dental Nurses and became an NVQ Assessor. This led to the completion of a Certificate in Education in 2007.

Upon leaving the RAF Michael took up a practice management role at Teeth on the Heath in Poole and did some part-time lecturing in management. 'I strongly believe in the concept of peer review in dentistry and believe that practices should share best practices and idea generation wherever possible to reduce workload,' says Michael. admin@teethontheheath.co.uk

A torrent of information

The recent legislative changes to dental practices such as HTM 01-05 and the arrival of the Care Quality Commission (CQC) registration process increases the amount of information moving throughout the dental practice. Practice managers and principals can no longer remain the guardians of information and all members of the team need to be in possession of all information in case the mandarins of the CQC come knocking.

As a hard working but part-time dental practice manager I am acutely aware that from time to time I do not see some members of the team, let alone have the odd 30 minutes to explain the concept of a schematic diagram of sentinel water taps for a Legionella Risk Assessment. So what happens when the stream of information turns into a deluge and then a torrent? How can you ensure that practice staff receive the information without compromising too much clinical time for meetings?

Collaborative

Involving people or groups working together

Involving people or groups working together to produce something

Collaboration in the dental practice isn't new. People working together to produce something has been going on within the clinical environment forever. It's called teamwork.

But what actually is collaborative working and where does information sharing fit into this? Well, at the most basic level this could be a handwritten note up in the reception asking for suggestions or a note of action for an individual team member on the

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practice minutes. But with the increased improvements in information technology and networking of dental software there has been a paradigm leap in the way we are able to do business.

Using the whole dental team in information flow could assist both the principal and manager in ensuring that all essential knowledge is made available to all. The days of pinning up notes or printing out practice minutes could be a thing of the past because of the developments in cloud computing.

Cloud computing

Although you may not have heard of the term ‘cloud computing’ it is probable that you use some form of it on a daily basis (Fig. 1). Facebook, Twitter and most of the social network sites use the cloud platform and cloud computing is set to be the next big thing in IT.

The premise with cloud computing is that a virtual network exists, which in theory any authorised person can access. Think of it as

Fig. 1 Overview of cloud computing

Fig. 2 A screenshot of Google Calendar™

a virtual server stored away from the dental practice that all members can access, whether at home or at work. Because the network is stored remotely there are no issues with back ups and any changes are immediate and in real time. Even better, information is retrievable from any smartphone, which means updated information can be accessible at all times.

For cloud computing to be of any use to members of the dental team it has to meet two specific criteria:

- a) Simple to use
- b) Beneficial in some way.

By looking at two types of cloud computing applications it is possible to identify uses within dental practices that meet the criteria above.

A shared calendar

Take the humble staff calendar within the practice as a practical incentive to use cloud computing. Usually pinned up in the staff room it becomes a year planner, leave planner, training planner and every other type of planner in between. Before very long the whole of the summer has been pencilled in with leave dates, with no ability to work out who submitted leave first. Before very long the calendar is unreadable and therefore unusable.

Take a popular cloud computing application, Google Calendar™ (Fig. 2) and use this as your staff calendar, your personal calendar, even your year planner, leave planner and training planner and it all appears in real time on one page, accessible from home and even in a combination of colours for those who are that way inclined.

The problem with all IT-based systems is that they require initial setup. In most cases cloud computing requires two things for it to be used: firstly, an email address – Google Mail™ or Gmail™ are the best option as Google Calendar™ will not work without a Google™ email address. The second thing is a computer network, ie two or more computers connected over the internet.

Setting up a synchronised calendar couldn't be easier. By logging into Google™ and creating an account within the Calendar tab and then following the step by step guide you will soon be up and running. Once you have a calendar set up in your email name it is possible to add calendars for other members of staff or your family; by having separate calendars for leave, training and meetings it is possible to keep everything neat and clear and accessible to all via the share function. By emailing an invite to share a calendar it is possible to allow staff members the opportunity to view calendars or to view and edit calendars. In our practice I allow all staff editing rights which means meetings and appointments are uploaded by all members of staff. Leave can also be

Fig. 3 Illustration of Dropbox application

Top: Michael with the team at 'Teeth on the Heath' in Poole. Right: The practice.

The key point about a shared calendar, as with all cloud computing applications, is that they can be shared by as many or as few members as necessary; the administrator of the system will control the privacy settings. In a practice setting this will mean that the main calendar is shared amongst all members of staff and each member of staff will keep a separate, private calendar within the practice calendar, which only they are able to see.

inputted onto the system, but only when the leave has been agreed in writing.

Undoubtedly, a lot of small, single handed practices may choose not to embrace the change, but for bigger multi-staffed practices the cloud will (possibly) revolutionise the way that appointments and dates are shared throughout the practice. The events can also be sent as reminders to various staff members so that meetings are fully attended and everybody is kept aware of what's going on.

Fig. 4 Dropbox folder view

The basic concept is that Dropbox is just that: a box that you drop all your important files into and retrieve as and when necessary. This acts as a particularly effective back up for files that you really don't want to lose. Because it is available on various platforms including smartphones it is possible to access files and documents on the go for example in a meeting away from work.

There are other similar applications available eg Skydrive by Microsoft and Google Docs, all of which more or less profess to do

Where the concept comes into its own is the potential use with the CQC process. All practices by now will have several folders retaining information meeting the outcomes required by the CQC. In my office I keep eight folders (and if anybody in the CQC is reading this, they are very BIG folders!). By sharing these folders via the Cloud (Fig. 5) it is possible that everybody in our practice can access information at any time.

Once you understand what information is kept in which folder it is much easier to open an electronic folder than to flick through an indexed paper version.

Fig. 5 Shared CQC folders

What gives this type of cloud calendar exceptional functionality is the additional options to tweak the calendar to truly personalise it. Obviously, each different calendar is colour coded to make certain dates easily recognisable. There is also the ability to copy calendar events to two separate calendars without the need to enter these events twice. This could be a personal event eg a hospital appointment on a personal calendar, which is copied into the practice calendar to let other members of the team know that there will be a member of the team away for a period of time. Certain key events can be emailed to individual members of staff as 'invites' which need to be responded to. This allows the chair or secretary of the meeting to be sure of which members will be attending.

By starting Google Calendar™ with a practice calendar and building up to allow all staff to have their own calendar, or each surgery, or by different types of activity eg leave, training, meetings etc – the true beauty of this system is that once it is up and running and understood it will only go from strength to strength.

File back up

Dropbox (Fig. 3) is one of the more familiar cloud computing applications that many people may be aware of as an iTunes App.

the same thing. With all of these applications it is a case of which suits best. So, apart from a free back up system, what else can you do with Dropbox? Well, because it is a cloud application it is easily shared to other users via their email address.

Once you have downloaded Dropbox onto your computer and followed the simple instructions you are ready to start file sharing. Dropbox also automatically creates two other non-shared folders - Public and Photos; which other folders you decide to create are up to you (Fig. 4).

Take for example my system at work. I created several sub-folders (Business Planning, an NVQ folder, a personal folder and a staff folder). Once you have got a folder to share all you have to do is to start sharing these folders with other email addresses.

Obviously, I would want to see exactly the same files at my home as at my work, but for other members of staff I can restrict the amount of folders that they see. For example the Business Planning folder is accessible by me and the practice principal. The Elaine NVQ folder is shared between me and Elaine and the practice folder is accessible to everybody in the practice. My personal folder is my personal data, plus things that I am working on prior to dropping them into a shared folder.

Storage limits

So Dropbox is easy to use, simplifies information share and allows remote access from anywhere in the world. Are there any downsides? Well, yes. Dropbox, although free to use the basic system which includes 2GB of data storage, becomes a paid system once you go above that threshold. That said, 2GB of storage is quite a lot and our practice is about 30% capacity despite having the entire CQC system, associate wages and lots of financial

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spreadsheet reports. It is difficult to envisage a time when a dental practice might go over the storage limit and be required to pay for the next storage amount.

The only other problem I can see with this file sharing system after a year of using it on an almost continuous basis, is the issue when two people open the same file at the same time. This creates what are termed 'conflicted copies.' This replicates the same file and it sometimes means that the administrator of the system needs to check, amend and delete any duplicated files. Apart from that, I have had minimal problems with the system. It is well used within the practice and allows increased efficiency, responsibility and delegation. In these times of ever-increasing administration, cloud computing can only be a good thing.