



The plain-speaking guide to
digital displays



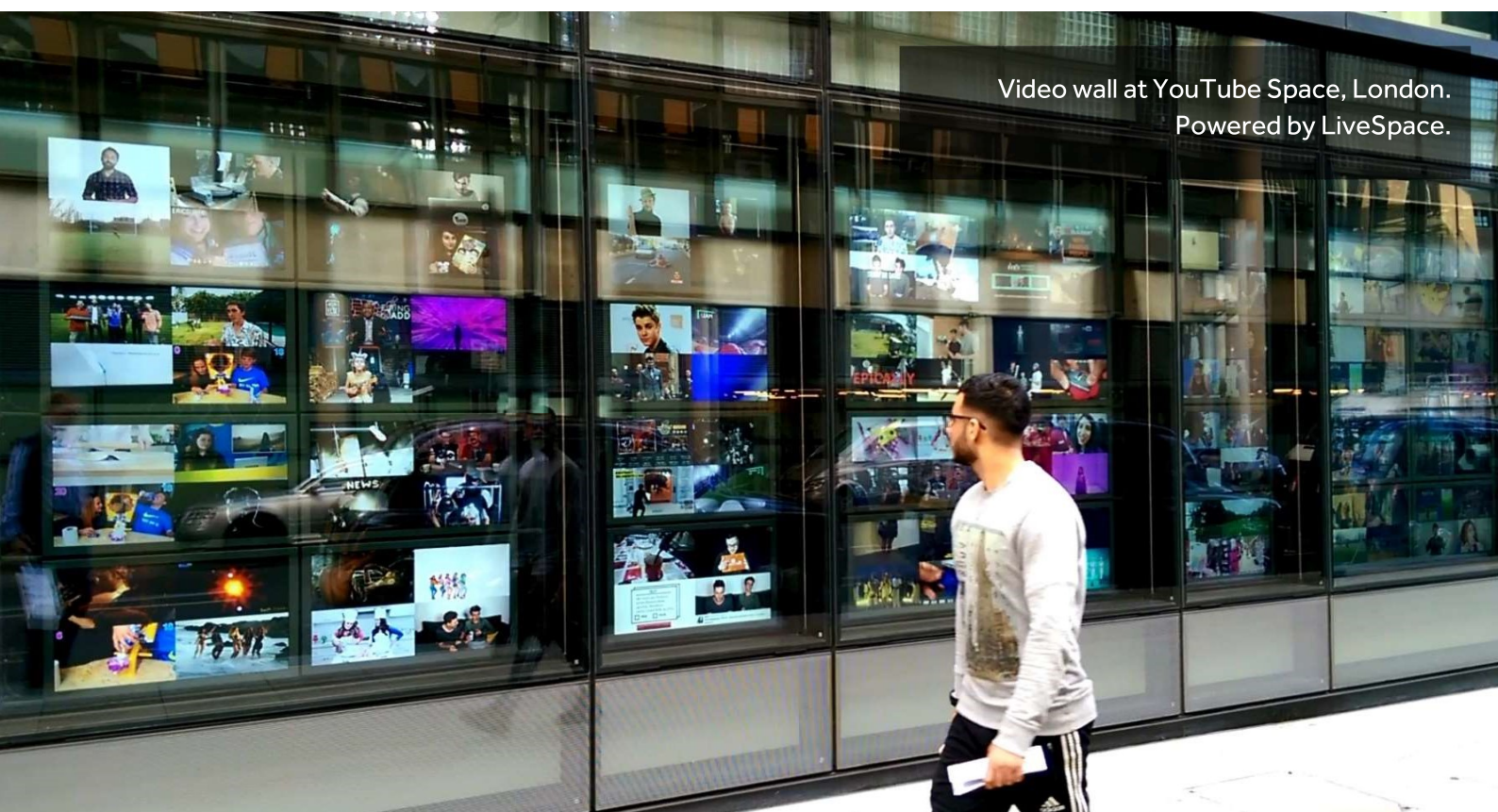
What is the plain-speaking guide to digital signage?

You'll find this plain-speaking guide to digital signage tells you all you need to know to get started with digital displays.

Whether you are reading this because you are thinking of taking a first step into digital signage, or you already have some signage in your business but feel it could work harder for you, welcome. We hope you find the guide useful.

We've aimed to make this guide relevant whoever you work with. However, it's important that you know it's been written by our team here at MRG, and that we're the people behind LiveSpace digital signage.

You can learn more about why we think LiveSpace is the best digital signage system money can buy and find out how to contact us, at the back of this guide.



Video wall at YouTube Space, London.
Powered by LiveSpace.

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This guide explores the big questions you face when you start to think about digital signage. By addressing them in this order you'll be doing all you can to get the best system for your needs.

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How can digital signage help my business?

Our customers usually come to us with a problem. And, whilst the problem might look different depending on the market, it usually boils down to a few common themes.

'I need to be more competitive with online'

'I need to sell more stuff'

'I need people to spend more time in my stores'

'I need to localise my content'

'I need to maintain head office control'

Whatever your challenges are, it's possible that better digital signage is part of the solution. Read on to see how digital displays can crack these common problems, and lots more besides.

There are loads of uses for digital signage. And fortunately, it's easier now than ever before to make it work for your business.

Not only have the prices of screens and systems tumbled over the past few years, but the quality of the software driving these systems has grown to provide a better, more coherent user experience.

Digital signage saves printing time and costs like postage, and it ends the delays that frequently occur when others you rely on fail to hang posters on the right day, at the right time. With digital signage you can now be reactive to competitors offers too.

Digital signage helps you remain competitive. A mix of good quality images, animations and video provide audiences with the eye-catching content that generates higher footfall and increased sales.

Cloud based, centrally managed digital display systems are the fastest way to broadcast advertising and promotions via your own screen system.

Need more dynamic displays? You can even add live price changes, your social media feeds, live traffic, weather and much more.

If speed to screen is important, run a system which can accept and store large quantities of data, but only sends the changes to the screens. If the same data is shared across different templates in different forms, then the system will update all of them at the same time. This keeps data volumes to an absolute minimum because the rest of the page is not affected and so

eliminates the need to re-send or refresh the full page. Whether that is transport information, pricing information, a promotions description or the percentage value of a discount, they are all handled in the same way.

Why is this important? It means that when you plan your campaigns, you can address thousands of screens simultaneously by scheduling the change in advance with no effect on your network. It also means that if you react to a competitor's offer, the instant you commit the change to your chosen screens, it will be displayed. These real-time changes ensure your screens always remain accurate.

Digital display for a food and beverage retailer showing main menu items alongside offers

Beverages

COFFEE

ESPRESSO	1.80
LATTE	2.65
MOCHA	3.10
MACHIATO	2.80
AMERICANO	2.20
FLAT WHITE	2.00
CAPPUCCINO	2.50

NOT COFFEE

ICED TEA	3.40
GREEN TEA	1.75
BERRY TEA	1.85
HOT CHOCOLATE	2.50
CACAO	2.60

try our daily roast:

COLUMBIAN DARK 24 HR ROASTING 3.45

An extra
espresso shot
FOR LOYALTY
CARD HOLDERS
AS AN EASTER TREAT FROM US



How can I use digital signage?

There are unlimited ways to make digital signage work for you.

Retail

- Window display
- Front of store signposting
- In-store promotions
- Localisation screens
- Customer facing touchscreens
- Live discount promotions

Transport

- Live departures and arrivals
- Bus stop live data
- On-street advertising
- Touchscreen passenger information
- All local road and public transport status screen

Restaurant & Bar

- Timed daily menu changes throughout the day
- Seasonal, special occasions and promotions
- Special event information

Gym & Spa

- Membership prices and packages
- Special offers and promotions
- Local advertising

Meeting rooms & Business centres

- Digital concierge
- Route finding
- Individual room status screens

Banking and Insurance

- Video walls
- Window screens
- In-branch displays
- Customer touchscreens

What does my digital signage software need to do?

You'll have already realised there are heaps of things which digital signage can do. But what is most important for you?

In this section you'll find explanations of some things you might hear when you talk to people about digital signage. Have a read through and make a note of the things which are most important to you as they will form an important part of your specification:

Scheduling

Scheduling lets you automate when certain content will appear on your screens. Playlists are the simplest way to ensure your system is dynamic and eye-catching. If the scheduling function is easy to understand and simple to operate then that is a big tick in its favour. What's required is a simple and effective way of queuing the system to play the chosen pages, carousels or playlists, scrolling messages and TV content at a future time and date of your choosing, without further intervention.

Grouping

Grouping is where a group of screens are assigned a function, and each screen in that group shows the same content. A department store might assign the screens at their entrances or in the windows of their stores to display a playlist of the current hottest promotions. A bank might display content targeting business customers in their dedicated area in every branch.

Regionalisation

Regionalisation lets you show different content to customers in different areas. You can base content on the tastes of local audiences. So, if you know that your London shopper's tastes differ from your Edinburgh shoppers, then the stores in those areas can easily display content designed to appeal their audience. Some shops in a large city will fall within areas that attract customers who support the blue or red team. Advertising and promotions can be delivered to the appropriate shop units that will appeal to one of these groups.



LiveSpace is ideal for food and beverage retailers.

Localisation

Localisation is a centrally managed feature enabling local managers to choose the promotion they know will work best in their unit. Head office create and manage a list of promotions from which the local manager chooses. A screen at each location is designated to display the local offers. A fast-food shop manager might display a promotion which helps to increase sales of a higher margin meal. A coffee shop manager might choose to promote older stock.

Local Overrides

Whilst all the collateral and templates are managed from head office local managers are provided with a control interface that can be accessed via a unique username and password. A local operator can have more control over their own display, or a group of displays in their unit. This gives the local user the option to override the contents of one of the data objects in the database to manage special offers and promotions. The local data is combined with the rest of the template to provide the final page to be displayed. Uses could include:

[Setting a local price for a special offer](#)

[Changing the name of the local manager in a playlist of information pages](#)

[Advertising a local winner of a competition](#)

Admin interface

The user interface provided for the control of the system requires a user name and password before users are allowed access. The admin interface has been designed to work well on either a standard PC desktop, a tablet or even the browser on a mobile phone. With the admin interface users can:

[Add and remove client screens](#)

[Add and remove pages](#)

[Create and edit playlists and carousels of pages for immediate display](#)

[Scrolling marquee and RSS feeds](#)

[Schedule pages, playlists or carousels to be displayed on a screen at a future time and date](#)

[Display live data from a data feed in real-time if required](#)

[Monitor the status of connected clients](#)

Facial recognition

Tools are available which can anonymously define an audience's key demographic information. Using this data enables you to serve relevant promotions based on generalisations around age and gender – so if you've found through research already that your older shoppers prefer different things to the younger ones, be sure to serve the right promotional messages when each group is in-store.

Weather

Your shopper's habits will change with the weather. From the practical basics of how our diets and clothing purchases change, through to the more emotional side of ourselves which finds we're more likely to feel frivolous while the sun shines, and more pessimistic when it rains. Responding to the weather outside with well-placed offers in-store will help your customer feel at home. This can be achieved with a data link into the met office data driving your system.

Multiple data feeds

Digital signage systems can manage multiple data feeds from third party systems. For example, this might be prices from an EPOS system, meeting diary information for a large organisation, or property details for an estate agent. The system is configured to display the information performed correctly without any intervention required. Your advertising becomes immensely powerful if your prices are displayed in your adverts but linked to your back-office systems. When a price or discount changes it is automatically displayed on your screens.



LiveSpace can handle complex data, fast.
Perfect for bookmakers.

Data Connectors

To add live data a data connector is required. This is a process that either polls for data or receives it as a feed from another source and then stores it in the database as data objects. When new data arrives, the system checks it against the existing data and only sends updates to those screens whose content has been affected. This not only minimises the traffic on the network but also increases performance as changes are published immediately.

Data Shapers

It's possible within the system to have more than one template displaying data from the same source but in a different way by using a control interface to select and sort the data. To provide this functionality a "data shaper" is created which takes the original data and creates a manipulated version to be stored separately. When data updates are received any derived objects created in this way are tested so that templates using the derived data also get updated if required.

How do I choose the right hardware for my digital signage?

If you're technically minded you may well be interested in this section, if you're not don't worry. A good digital display provider will always help.

Choosing the correct hardware can make the difference between a reliable digital signage solution and losing revenue through lost opportunities. These systems can be a big investment, so you need to be confident that it is both reliable and effective.

There is a plethora of solutions available but if the one you adopt has not been designed specifically to run a digital signage system you may be introducing unnecessary and avoidable problems.

Solid state hard drives have no moving parts, run cool and use minimal power. In comparison to other solutions they will run efficiently and relatively trouble-free in most environments. But even a system designed with a mechanical hard drive is better than one using a PC designed for domestic use or worse, a home-grown solution, both of which should be avoided.



A variety of options

A USB device with little or no intelligence. These invariably provide a basic solution with few frills and need to be manually swapped for a new device when content changes. This is time consuming and not a perfect solution if you are a large organisation who requires certainty over a planned roll-out.

A small form factor PC server which distributes content to client's PCs. Capable of high definition and 4K resolutions.

A cloud solution whereby all the software sits on a server in a bunker somewhere, servicing hundreds of different clients with different audiences. At the client (screen) end sits a PC that is addressed by the server.

A Plug-in PC is a small device which plugs into the HDMI input and introduces HD quality web browser to any TV. They can run the LiveSpace digital signage system, but they have limitations.

A smart TV has an In-TV browser capable of connecting to the internet and displaying content distributed to it from another source. Cabling requirements are minimal. Currently there is a mismatch between the resolution of the screens and the browser which is a lower resolution. It is hoped TV manufacturers will resolve this soon.

In general, the software solution you prefer dictates which hardware solution is employed. They all have their plus and minus points, but your software provider will either recommend the best solution or sell you a hardware solution which has been specifically designed to maximise its own capabilities.

Large flat panel screens are now ubiquitous, with many households owning TV screens many times larger than ten years ago. Choosing a screen of the correct size for its surroundings is important. A 40" screen in the grand foyer of a large organisation is unlikely to impress and therefore the intended impact it was meant to have is lost.

If your premises front onto a wide-open aspect in a shopping mall or open pedestrianised shopping street for instance, then choose one of the new ultra-high brightness screens for your window display. These screens can easily be three times brighter or more than a domestic TV and will draw customer's attention to your shop.

Consider the viewing angle of your customers and how far from the screens they are; will they be in a queue? Are they able to see prices and descriptions from a reasonable distance? This is especially important for digital menu boards, conference information, advertising and more. If you cannot read the message clearly, have the screens been mounted too high or do you need to reconsider the font type, font size or the screen size?

With today's LED backlit screens there is no problem mounting the screen in portrait rather than landscape to make it look like a poster. This different aspect immediately attracts attention simply because of its different orientation. LED backlit screens run cooler and use less power than their predecessors with fluorescent tubes, so there are both savings and ecological advantages in choosing the latest technology.

The resolution of the screen will be determined by its function, but most installations now use HD (1080p) or 4K. If your digital signage requires you to use lots of text rather than images then curly characters such as 6, 8, S and G, etc. will still look smooth and clean. On older, lower resolution screens these characters can look ragged and blocky and you should consider replacing them.

Transport information screens and other areas where the content is mainly text information of one sort or another would benefit from the new 4K resolution.

Aside from the consumer units we use at home there are two other categories of screen manufacture.

Commercial grade screens are designed to run 24/7 in environments where the screens are rarely turned off because of the nature of their function e.g. a hospital A&E department.

A recent introduction has been the Hospitality grade screen. These are designed for use of up to 16 hours a day. Choosing the correct screen for your purpose is important and could ultimately save you money despite the apparent high, upfront cost.



LiveSpace handles up to the minute live data. Keep your customers informed.

Your new system must look professional. There is nothing more distracting than an installation that looks untidy and amateurish. It is no exaggeration to say that your message may be missed because some customers are distracted by trailing wires and wonky screens. A well-executed installation is often taken for granted and simply merges into its surroundings. So, no plaudits, but you quickly learn what people's views are if it has been badly installed.

Cutting corners usually results in future problems and ultimately higher costs to have them rectified. How much business might you lose, or confidence in your abilities because you are perceived to cut corners?

The best position for a screen defines how it is to be mounted. There are many options from which to choose. These include flush wall mounted, tilting, extending swivel, swing-out, ceiling and floor mounted to name a few.

Think about infrastructure. Are there convenient power and network points? If your provider visits the premises to survey it, discuss where the screens are going to be sited to make maximum impact.

Consider the network you hope to use; are you expecting to use wifi to transfer data to the screens? A cable connection offers almost guaranteed connectivity whereas wifi can be unreliable, though thankfully this is changing. If you think you can use your existing wifi but know it is close to saturation or swamped at busy times you should reconsider your options.

All systems have a few problems to snag during the installation process and it is important that during this period remote access is proven to work as this is by far the best way to support the system.

Choose a company with a good track record of retaining its clients. If the website demonstrates customers remain with your chosen supplier for long periods, then they evidently know how to look after clients and their products are well supported.

Does the system you are considering have simple methods by which you can determine if it is working correctly? Is there a live preview of all available screens? Does each screen automatically update periodically to show the changing content on the displays? It's things like this which provide you with the confidence to know your system is working correctly. For installations spread across a large estate the screens are arranged in groups in the dashboard. The tree display may then be collapsed or expanded, as required.

Either you need in-house skills to support your system or choose a digital signage company that will provide you with a support contract. We've all seen the Windows 'Genuine Advantage' or, 'Cannot connect to Google Chrome' message. Don't let this happen to you. These embarrassing failures should not be displayed on screen and can be avoided.

Reducing the downtime and effort required to support a system is a combination of choosing the right equipment in the first place and a company with efficient procedures in place to correct it when it goes wrong.

What are the important hardware and system requirements I need to think about?

SaaS or Self Hosted?

Software as a Service (SaaS) is cloud based whereas self-hosted is installed and managed within your organisation. These days the option to self-host might depend on the number of screens being addressed. There is a break-even point at which it becomes cheaper to self-host rather than pay for each connection to a cloud server.

What are the benefits of Software as a Service (SaaS) or cloud based digital displays?

Easy set up - hardware simply requires internet access

Lower initial cost

Automatic upgrades - whilst you continue to pay the subscription you have access to the latest version

Any computer with internet access can access the software, subject to authentication.

What are the benefits of self-hosted digital displays?

Most secure option

Brings network management in-house

Uploading content is marginally faster over a local network, but most users do not need their displays to be time-critical. Even those who do, the difference can be measured in milliseconds.

If a support package has been purchased the system will receive upgrades automatically.

Any computer on the local network can access the system, subject to authentication.

Whichever route you choose make sure it is suitable for your purposes. Your digital signage provider will advise you on the solution best suited to your individual requirements.

Bandwidth

A good system has the bandwidth to transmit large files or large numbers of files to the screens on the network. Sometimes it is necessary to schedule content overnight to minimise the impact on the network.

Maintenance

Bear in mind that the maintenance of these units depends very much on where they are sited. Are they in a dusty atmosphere, what about heat and air flow? During maintenance will the unit be accessed easily or will part of the premises need to be cordoned off from the public for health and safety reasons or will access for maintenance only be allowed during out of hours?

Security

All organisations should have a security policy that third party systems are expected to conform to. Some organisations will not consider a digital signage system sharing their corporate network, for example banks. A separate network for non-critical business systems like digital signage might be made available.

Costs

Don't cut corners, buy the best you can afford not the cheapest you can obtain. If the infrastructure is in place use what you can rather than purchasing new. Some organisations feel they need to demonstrate they have the latest and best. If your organisation is less concerned about this, then re-using older TV screens will provide savings on the final cost of a new system.



Easily show customers your daily special offers with LiveSpace.

How can I make sure my digital displays look good?

Finding a system which delivers all you need technically is only the first challenge you'll face.

Creating content which fits your brand, and grabs your customers' attention, is every bit as difficult. Think through the following questions to be sure you create the content you need:

Do you want the same content on every screen?

If you only need a single screen, or for all screens to show the same content in every location, things are easier. If you do want to show different content across your screens, be sure it can be grouped by department, geographic location or whatever criteria you need.

Templates

Templates simplify your screens appearance. The operator is free to concentrate on the words required whilst the template can be relied on to place and format the content effectively.

Graphic designers

For highly personalised content you will need your content to be produced by a graphic designer. Your designer can provide all your content as image files and can take care of all the design elements required. This will result in polished adverts which are attractive to your audience.

What questions should I ask before creating new content?

If you need to create new content for your screens it can be hard to know where to start. The following questions will help you design better content:

Who is the target audience?

Your customers, your staff, or someone else?

How long do you have to capture interest?

For example, is it while people are queueing at the tills, or the even briefer moment when they pass a window display?

Are they in a public, shared space with other distractions?

Is it somewhere public like an airport or private within the confines of your own premises, like a health spa? Consider the methods that work best in these environments.

What is the call to action?

Will you ask them to visit your website, go to the aisle where the product is stocked, scan a QR code, speak to a member of staff, or pick up a leaflet?

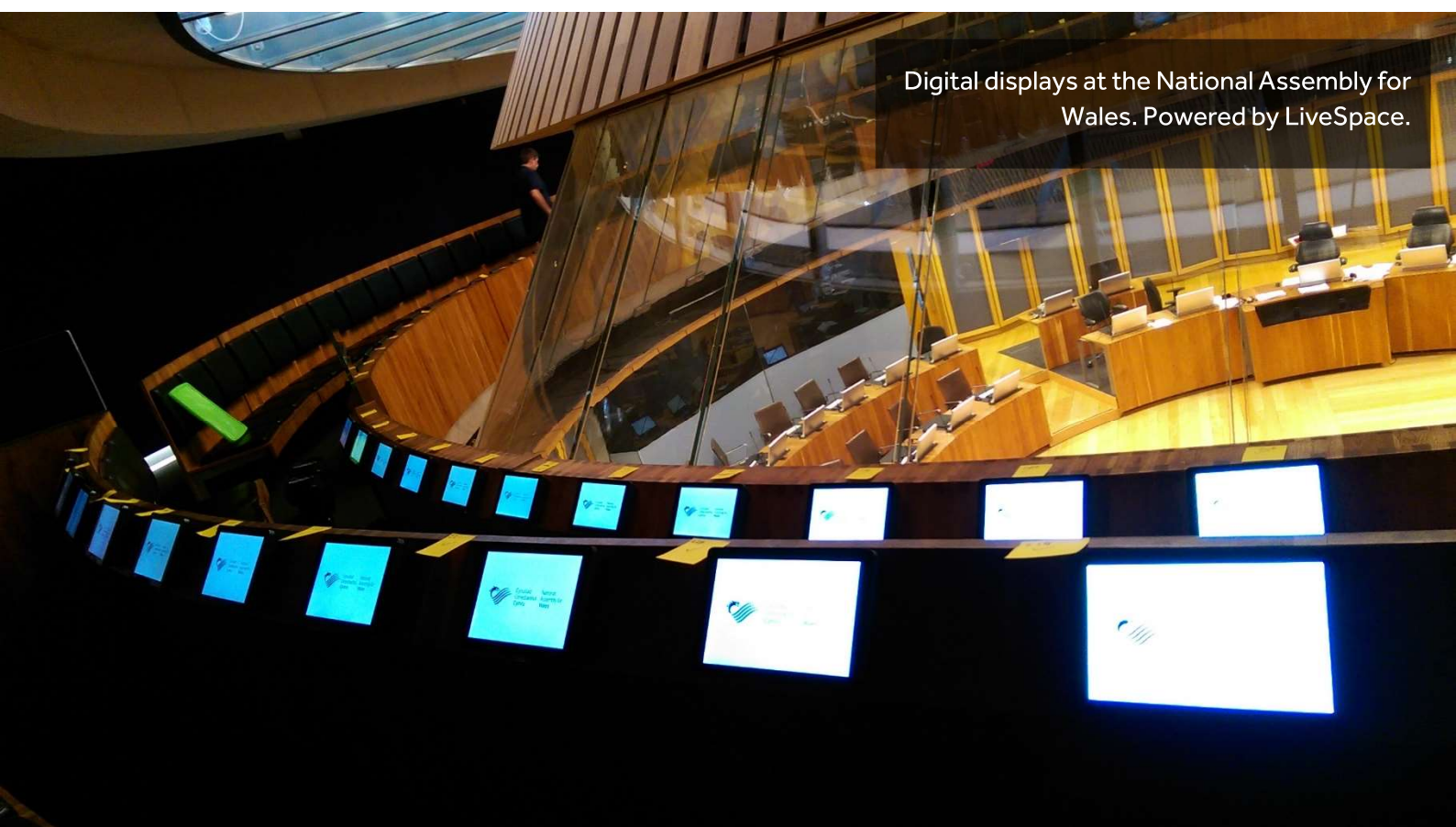
Don't just do it, own it

Once your digital displays are up and running there's always a danger that people lose interest and move on to their next shiny new project. So, how can you stop that happening?

We'd recommend your system remains under continual review to ensure content never becomes stale and always remains relevant, informative and fun for the audience.

Making a single individual responsible for overseeing the contributions of others is a good idea; it adds consistency, helping to ensure your own rules are followed. Or you might be happier buying a managed solution, from a provider like MRG Systems.

Digital displays only fail when they are poorly managed and the person running the screens has little interest making them work. To help make a success of digital displays it's important that the system you choose can be learned quickly and is not complex to operate. And it goes without saying it needs to be produce eye-catching, dynamic displays.



What if my system needs to grow in future?

Use a company that offers support and updates throughout the life of the product.

This is cheaper than discovering your system has remained static in developmental terms and out of date within a few short years, needing an expensive upgrade or possibly requiring a replacement.

Whilst this normally involves additional screens, it may also involve adding greater complexity to the content you wish to display through the addition of video and other attributes that basic systems are unable to offer. After all, it is only natural for you to become more sophisticated with your requirements after a period of exposure. If you think this is likely then make sure the things you want to introduce are readily available to you. Some of the simpler, cheaper players and USB type devices might provide you with a solution from the outset but is it really the long-term solution you are going to need?

Do you have the time and resource to visit every screen to load updates via a USB flash drive? If the units driving the screens were networked would that be a better solution? Consider the likelihood that you will want RSS feeds, video or live TV in the future. These are frequently standard requirements for users of digital signage. Will your chosen system look as exciting and relevant as some of the other solutions adopted by neighbouring organisations or competitors? You should satisfy yourself that the system you install is fit for purpose in a year's time. You owe it to yourself and your audience to look at all the options.

Prior to purchase, ascertain if there is continuity between old units and new units to provide the expansion you hope to make. You don't want to add new features to your system if managing the changes places restrictions through incompatibility between hardware versions. Difficulties may be faced when operating the system as a result and training new staff to use the system becomes complex.

The correct choice of software is imperative when thinking about growth. 'Free' solutions may have hooks that draw you into accepting a suboptimal relationship with your supplier. This may express itself as a limitation of the hardware's capability or expensive 'Add-ons' i.e. additional functionality purchased separately to provide you with the system you really need.

The system you choose should be fit for purpose and should be able to grow with you as your confidence, capabilities and sophistication grow. The solution you choose should be reputable and have proven capability.



Seamlessly mix sales messages with essential information like departure times.

About LiveSpace

LiveSpace brings complex data to life.

LiveSpace presents compelling sales and marketing messages which make people act. It rapidly handles data and enables localisation, so you can present your strongest message every time. LiveSpace was created by MRG Systems, a leading digital signage provider.

MRG Systems dominate retail betting with customers including Coral and Paddy Power, where the need to mix ever changing price and form data with live footage of events is matched by their technical expertise.

You'll also find MRG Systems in places as diverse as YouTube Space, the Houses of Parliament and Farnborough Airport.

Call [01453 820 840](tel:01453820840) today to arrange your free LiveSpace trial.

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