360 Marketing Lab
IMMERSIVE VIRTUAL TOURS

Thinking of a 360 Virtual Tour?

"How to find a provider" Whitepaper

About us

Why should schools listen to us?

We are a small business, based in the Midlands, serving the UK and abroad in delivering premium 360 virtual tours to independent schools. We specialise in this product and in this sector.

We have a combined experience of 25 years working in school marketing, visual assets, digital technology and user experience. We understand school's audiences, their pain points, their goals and how they interact with families. We also understand the use of emerging technology, on-brand experiences and creative solutions to achieve school's marketing goals.

Whilst we create immersive, 360-degree virtual tours to put rocket fuel into school marketing, what we bring to the party is a full understanding of what you need to achieve with this tool.

What we cover

THIS WHITEPAPER IS A MUST-READ FOR ANYONE LOOKING AT INVESTING IN A VIRTUAL TOUR FOR THEIR SCHOOL. IT DETAILS HOW TO CHOOSE A SUPPLIER AND WHAT TO LOOK FOR TO AVOID DISAPPOINTMENT.

What is a 360° Virtual Tour? Our definition

A collection of 360° equirectangular images (aspect ratio 2:1) of a facility, building or rooms, input into software allowing the user to control the viewpoint of any space by using keyboard arrows, mouse or trackpad to look around the room and see 360 degrees of it (ceiling and floor included). The user should be able to move from room to room and some Tours even embed hotspots of content for the user to interact with, view or hear.

Some call a video a "Virtual Tour". In fact, nowadays many are calling any digital tool used in marketing a Virtual Tour, making it extremely difficult to differentiate between a wide variety of options, so defining what you want from a Virtual Tour is key.

TURNING THIS EQUIRECTANGULAR IMAGE…

INTO THIS. A USER CAN ROTATE THE IMAGE 360°
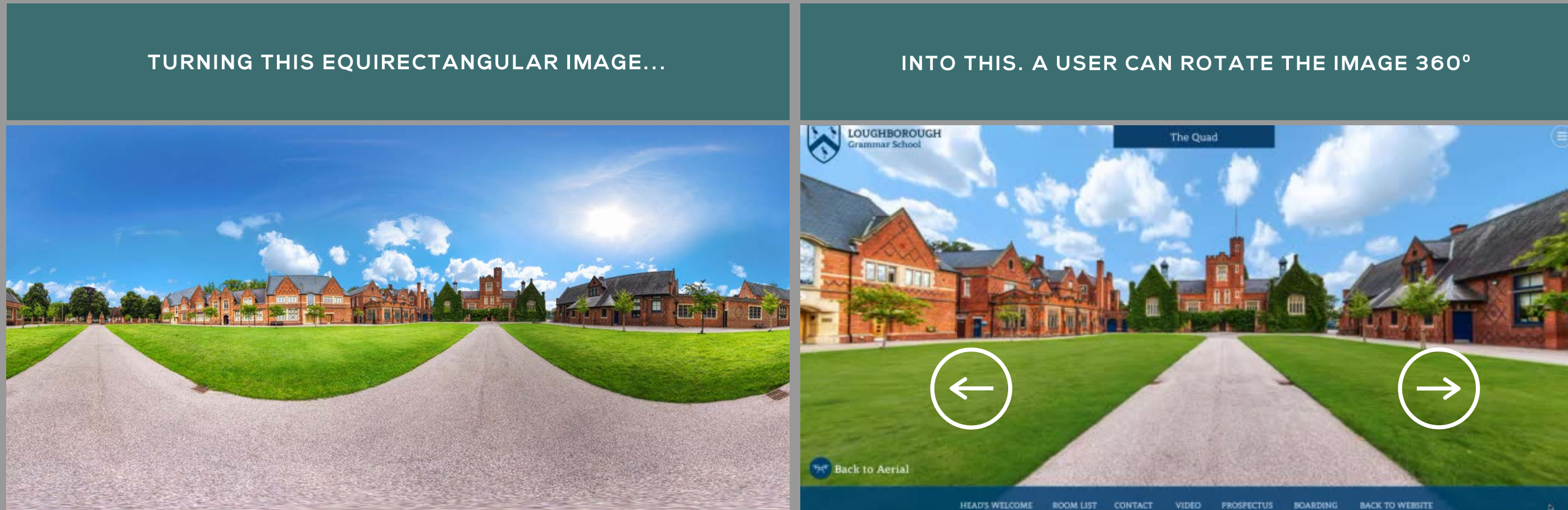
Do you need a Virtual Tour?

The usefulness of a Virtual Tour will long outlast the current pandemic as the advantages of having one are numerous to so many of your audiences.

You may already be thinking about how to start the process of developing a 360 Virtual Tour and how to find and vet suppliers. As the product and service are quite new to the sector, the process of sourcing a Virtual Tour will also be new to school marketers, so we're here to help with some key tips and advice.
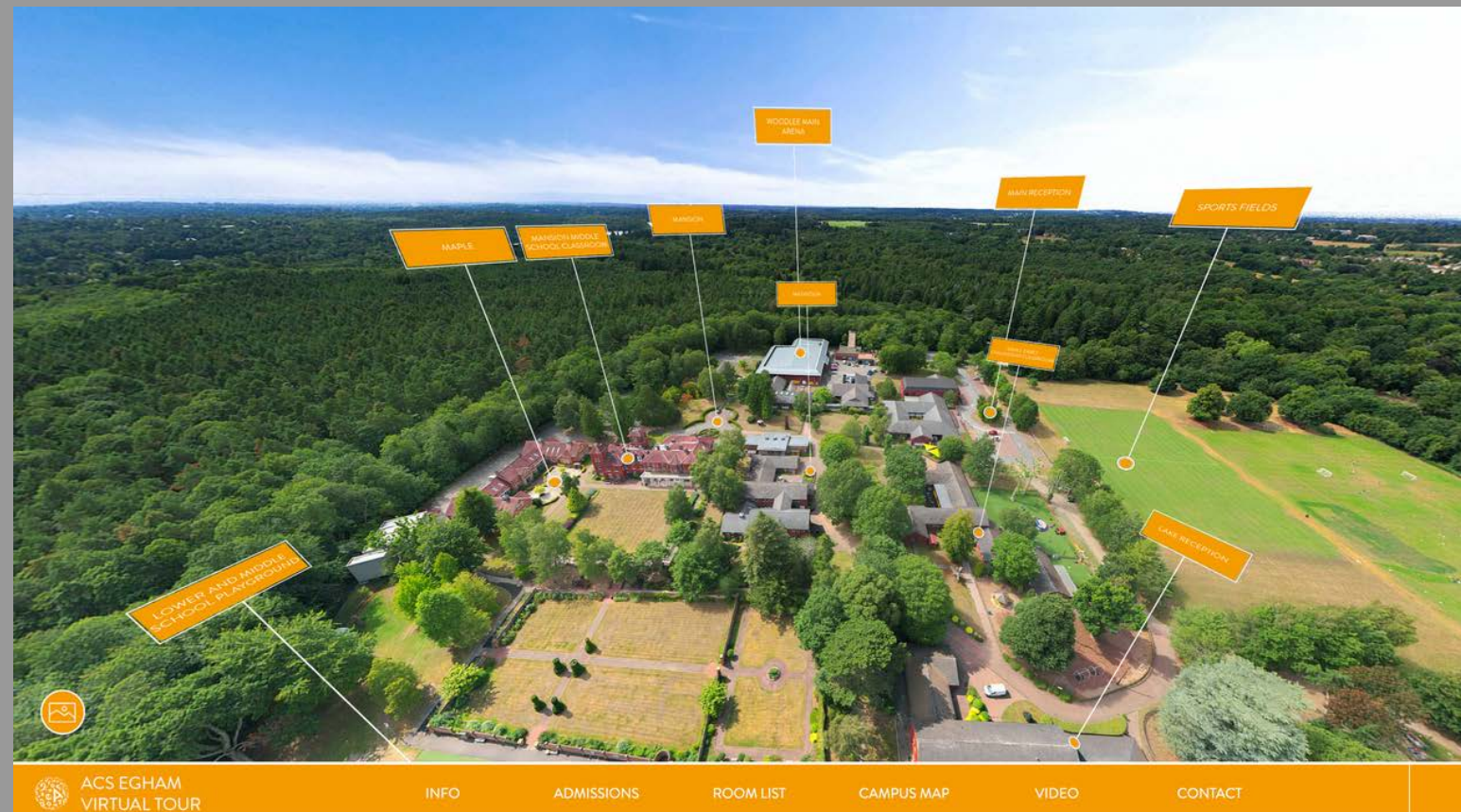
THE DECISION SHOULD BE MADE SERIOUSLY AND MONEY INVESTED IN MAKING IT AN IMMERSIVE AND ON-BRAND EXPERIENCE TO INCREASE ENGAGEMENT.

Convincing SLT & Advantages of a 360 Virtual Tour

During a lockdown or not, being able to show someone around your school without travelling and with fewer time restrictions and increased safety is a huge advantage. Consider these potential audiences and uses:

- **Pupil recruitment** – View or show a Tour at a recruitment fair, show off your facilities but also make yourself seem more 'accessible' to modern-day two-income families who may be intimidated by the thought of independent schools.

- **International families** – View a Tour as a surrogate visit to the school when travel is impossible or not financially viable.

- **New staff & interviewees** – View a Tour as a potential workplace environment.

- **New pupils & starters** – View a Tour as a way to ease the stress of new starters by giving them a visual reference of the facilities and the flow of the school.

- **Alumni engagement** – View a Tour to show capital developments and their progress, your historic archives or to facilitate fundraising.

- **Community engagement & support** – Show the facilities that are made available to the public e.g. pool, sports, wedding venue etc.

If a Tour is done well (not just 360 photos, but with added content) it will be an immersive experience, great for storytelling, used for blended open days, COVID-safe for visits, and with the right provider and platform, it will also serve as an online live video chat service like Zoom for a Live Guided Tour.

A VIRTUAL TOUR SHOULD BE A BRAND EXPERIENCE FOR YOUR USER, NOT A SIMPLE PHOTO GALLERY

Photography Quality

This is key and is the base layer of every Tour. The Tour will be viewed on all devices, in many browsers and usually fullscreen. The quality of the photography can make the difference between your school looking dingy, dark and uninviting to clean, warm and welcoming. As the key feature of your tour, you should be focussing on sourcing the best photography you can afford and that will all come down to:

1. camera type and how the 360s are shot and
2. the skill of the camera operator and
3. software used and skill in post-production

Specific photography 'tells' are listed in detail in another section. They are useful tricks to spot the type of camera and to identify editing skill levels. A summary list of what to look for in a provider's images are:
1. The image quality itself – sharpness, exposure, colour saturation. levelling, stitching, absence of anomalies, High Dynamic Range (HDR) and
2. The content of the image – the staging of the room, its cleanliness, its tidiness, any useful visual cues, any security issues such as pupil names on display boards.

LOOK FOR HIGH-RESOLUTION, COLOUR-CORRECTED IMAGES WITH MINIMAL CLUTTER TO SHOW YOUR FACILITIES OFF

What to look for in a Virtual Tour
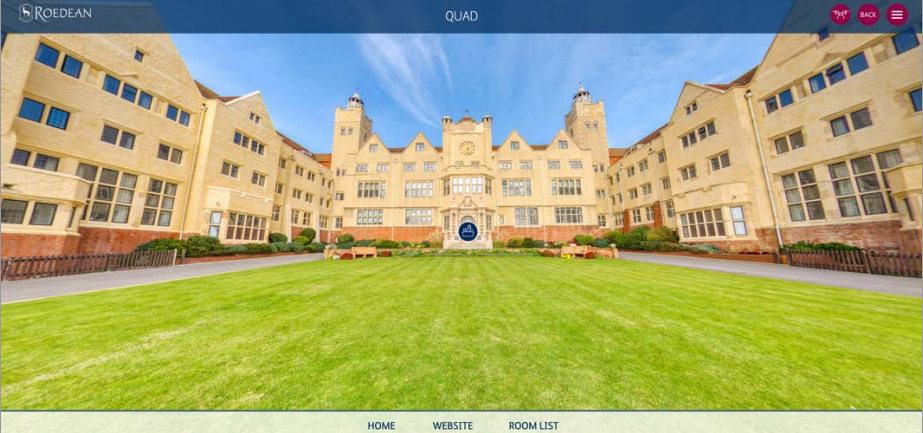
Embedded Content

Look for added content (in 'hotspots' and menus) e.g. videos, photos, stories, text, information on admissions, sports, the curriculum, marketing assets you use in your school website. This content makes the Tour extremely useful as a 'pure' marketing tool. A Virtual Tour with ONLY 360° images makes it a 'photo gallery Tour of school' and in our opinion, a waste of good assets and a missed opportunity. Your school website already has 'all content/info for all audiences' so any 'pure marketing' to pupils, parents and staff can get lost in your 100+ webpages, but a Virtual Tour is a 'one-stop-shop' customer journey for your pure marketing content to live, making at Virtual Tour a focussed marketing tool that is totally different from your website.

An added point to look for – the embedded content and how it is displayed needs to be on-brand for your school, as well as being interesting and digestible with Call-to-Actions (CTAs) to make the most of your investment.

USE A LAYERING EFFECT: EXCELLENT PHOTOGRAPHY BASE + LAYERS OF ENGAGING MEDIA-RICH CONTENT TO INCREASE A TOUR'S EFFECTIVENESS

What to look for in a Virtual Tour

User Experience and
## User Interface (UX/UI)

The Tour should work on all devices and all browsers and the way you move around and interact should be intuitive. If it doesn't work and things are 'broken', it will reflect on your school. You wouldn't accept your website with broken links, off-brand design or confusing customer journeys so why should your Virtual Tour be any different? Things like instructions on how to use the Tour and what you expect your user to 'do' are helpful, especially since many users will not have had any reference experiences or prior exposure to a Virtual Tour.

Having the ability to guide your users 'live' in-person via video chat is always helpful and dramatically increases engagement.

The UX will be positively affected by embedding useful, compelling content that influences the user's experience and decision.

Some parents may use your school website or a Tour to make a decision about a 15k-30k a year investment in their child/ren so this experience and how they feel after it is a huge factor in your marketing. Treat it as the powerful tool it is.

**CREATE A BRAND EXPERIENCE
THAT ENGAGES YOUR AUDIENCE**

What to look for in a Virtual Tour
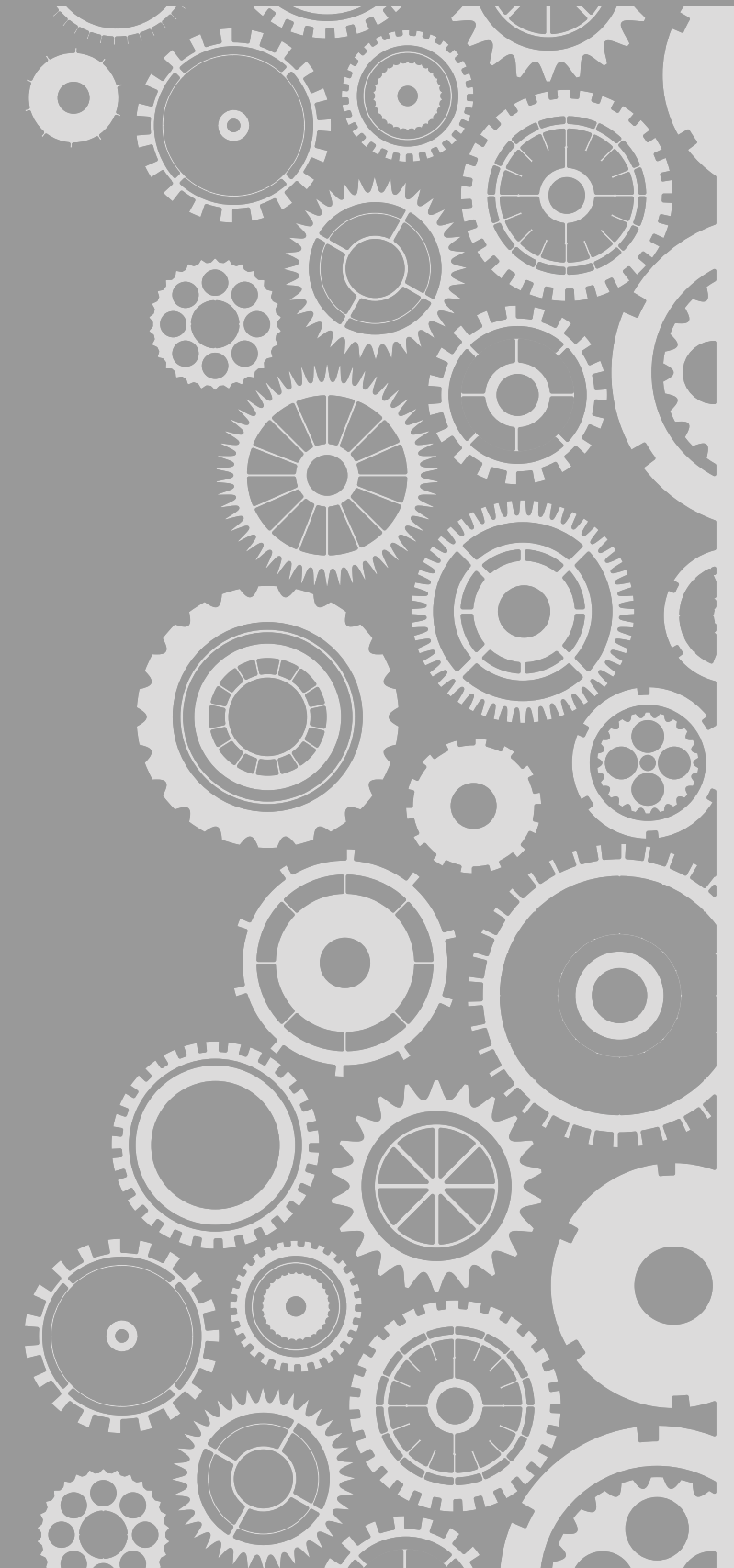
Useful Features to Add Value

Look for added value. Are there features that one Tour has that others do not, that you might find useful? Features that add value to your Tour and set you apart from neighbouring schools will help your cause. Examples might be but are not limited to drone 360s (different to drone stills or drone video), video chat or screen share of the Tour for live meetings, day to night transitions, seasonal transitions, ability to interact with media, download media, 3D models for learning resources, tiny planet imagery, fly in-out and Virtual Reality (VR) headset capability will add differentiation to your Tour.

Perhaps in 2 years, every school or business will have a 360° tour. It may become the new 'must-have' digital tool. There was a day when schools didn't have a website, but they all do now! Just like with websites, your Virtual Tour should not look like every other tour.

CREATE A VIRTUAL TOUR BRIEF THAT REQUIRES YOUR TOUR TO 'LOOK DIFFERENT 'AND TO HAVE ACCESS TO USEFUL FEATURES WILL CONTINUE TO DIFFERENTIATE YOU FROM YOUR COMPETITORS.

What to look for in a Virtual Tour

Security Concerns

The biggest security risk is in 'how' a user navigates your Tour.   Providing your audience with a Tour that is a floorplan or a true 'walk through' Tour could give a would-be opportunist a route through your school which could cause safeguarding and security issues. Our recommendation is to choose a style of Tour that uses 'jump rooms' and minimises the routes through a school as opposed to a true walkthrough.

For example, showing in a Tour that your Computer Lab is the 5th door on the right down a corridor from Reception is not ideal. In addition, valuables 'in-shot' can also be targeted and perhaps easily accessed if an opportunist knows the exact location of them in your school.

In your research phase sourcing a provider, our advice is to consider carefully before commissioning a '100% walkthrough' type Tour, where the user clicks a floor circle to advance every few feet (similar to Google Street View) and hence creates a realistic floorplan of the school. Certain software platforms that 360 tours are built in rely solely on this type of 'movement' in a Tour so do enquire about this feature.

Some Tours add a further feature which presents a 3D floorplan - called a 'dollhouse' - another asset for burglars. Our advice is to avoid this gimmicky 3D tool, as whilst it has wow factor when you first see one, it has no advantage for schools and is a security risk.

USE A 'JUMP ROOMS' APPROACH TO AVOID MOST CORRIDORS AND THE 'CONNECTIONS' BETWEEN SPACES TO DECREASE ANY SECURITY RISK.

Pros and Cons of Different Types of Tours

You will be able to ask questions of your potential provider about budget, timescale and process just as you would from any provider. But where you will get the most useful information to help you make your decision is what type of equipment & software a provider uses and examples of their previous work. What you'll be looking for: Camera type + Software type + Skill and experience + Tour features.

For simplicity sake, there are 3 camera types (and a 4th to mention) that put the Virtual Tours into 3 category types for quality and price.

One-shot Camera

It is a cheaper camera to source (£400-£900). To create the 360s the provider will need many other bits of software to make the images look 'just ok', which is what to expect from a supplier using a one-shot camera (e.g. brand names - Ricoh Theta, GoPro, Insta360).

One-shots are great for real estate Tours which are a short-term product needed for a limited number of smaller spaces. But they are a poor choice for a fee-paying school, business, museum, hotel etc. In our opinion, no one with a one-shot should be charging more than a few hundred pounds for a Tour. Schools, businesses, etc deserve to be shot with a DSLR or Matterport Camera to look premium. The only concession to this is state schools whose budgets may be limited.

The Megapixels (MP) on one-shot cameras are about 8-20MP. Unfortunately, when those pixels are spread across an equirectangular image, even a 20MP camera can produce a grainy, soft image. One-shot cameras also suffer terribly with chromatic aberration, which can be identified by purple or green fringing in your final imagery.

PROS: CHEAP, GOOD FOR PERSONAL USE OR SMALL 'DISPOSABLE' TOURS
CONS: POOR QUALITY FOR BUSINESS USE, LOW MP, CHROMATIC ABERRATION, WORKFLOW DIFFICULT, EXPENSIVE, TIME-CONSUMING AND REQUIRES SKILL, HAS LIMITED EDITING CAPABILITIES.

RICOH

DSLR or Mirrorless Camera with Specialist Lens

This is your typical professional photographer's equipment (Canon, Nikon, Sony etc) but with added components (fisheye lens and pan head) and they need the skill to photograph and stitch the images. Cost of the equipment can be a few to many thousand pounds depending on the brand of camera. Once set up in a room, the photographer will likely take between 4 and 20 photographs which will then be stitched into a 360° image, HDR'd and edited in post-production to create an equirectangular image that will be between 24-50+MP.

This method provides the most flexibility during post-production editing and most anything can be done with Photoshop and Lightroom to alter how the images look, objects can be edited into and out of the photograph and the quality is exceptional with 24-50+MP images. From experience, schools tend to want many things edited in and out of a photograph (paint peeling, pupil names, covid signs, scuff marks on walls, adding blue skies, green grass etc) so having that ability is critical to the appearance of the end product.

A downside of DSLR is, depending on the lens and lighting, the outcomes may vary and there is always a small risk of a minimal amount of chromatic aberration (purple and green fringing), poor colour grading/editing skills and experience in pre-production, production and post-production. Not all photographers are creative or have the skills to take and create 360s. 360s ARE different from normal photographs so vetting a provider means asking for their 360 examples, not their normal creative photography.

PROS: EXCELLENT PHOTOGRAPHY, HIGH MP/RESOLUTION SO ZOOM/DETAIL IS EXCELLENT, POST-PRODUCTION EDITING FLEXIBILITY, SOFTWARE CHOICES ENDLESS AND WITH THE RIGHT SOFTWARE WILL ALLOW FULL BRANDING OF THE TOUR.

CONS: SOURCING GOOD PHOTOGRAPHERS CAN BE DIFFICULT, NOT CHEAP, LONGER TO BUILD DUE TO EXTENSIVE EDITING CAPABILITY, IF CERTAIN SOFTWARE IS USED TO BUILD THE TOUR, BRANDING EDITS CAN BE LIMITED.

Matterport Camera and Software

The above options are cameras that can be used with any software to build a Tour. However, there is an option that is both camera + software or software only. Matterport is a company that offers its software as an annual subscription fee and they also offer three camera choices, one of which is their own camera. Camera choices that can be used with Matterport software are: your own 'one-shot', your own DSLR or Matterport's own 134MP camera (£3000). Any of these cameras are a cost to the school and/or require hiring a professional photographer who uses Matterport software.

We have commented below on the Matterport software features, when using any camera plus added some comments when using the Matterport camera.

Photography must be supplied to Matterport. Images are uploaded to the Cloud and your Tour is built by a Matterport algorithm. Humans do not build the Tour. When the Tour is built it is emailed back as a finished product. Any errors aren't spotted until after the photographs have been taken and Tour built.

The provider (or school if you've done it yourself) is tied into the Matterport software as a service (SaaS) for which Matterport charge annually. If you decide to cancel the service, then your Tour would go offline and no longer be available, as there is no option to 'keep' the Tour files without paying an annual subscription fee. This option works fine for estate agents when Tours go offline as quickly as they go online (once a property sells) but for a school/business that may want to keep the Tour live for longer, we see that as an unacceptable proposition especially if the annual fee increases. At the time of writing, subscription fees are approximately £1000 per year.

Another feature of a Matterport Tour, it is usually a 'true walk-through' meaning every single step is photographed and as such, it provides a full floorplan and blueprint of your school, for everyone to see (see Security, above). A feature of this 'true walkthrough' is, like in Google Street View, it could take you 4 clicks to get from a current viewpoint to one that is 10 feet away in the image, which in our opinion, leads to a poor UX, takes too much effort and delivers too much detail. In this 'true walkthrough' you can also get something we call 'tile pulling' meaning, when you advance from one spot to the next, the small tiles (there are 100's of them) that make up a 360 image either pull or stretch or temporarily go black so the image can distort quite dramatically.

Matterport Camera and Software (cont'd)

You should also be aware that every interface, menu, icon, text box and photo gallery will look the same as other Matterport tours. Very little scope to personalise to your own brand. There is an option to change text colour but it is limited in its range. Fonts cannot be changed and logos cannot be added except in certain pre-determined areas. The 'Tripod Cap' you sometimes see when you look down in a 360 will always be the Matterport logo or be blurred.

As there's little to no scope for adding brand colours, fonts, logos, designed documents, designed photo albums, personalised galleries or how your video content will show, it makes it quite an 'off the shelf' tool, with features that are useful in real estate but not in school admissions and marketing, Matterport software is well-known for its 'measuring spaces tool' and the 'Dollhouse effect' features, features that are useless in schools.

Overall it means it's a very useful tool for other sectors, but perhaps not the best one for education. You would be paying a premium for features you will not use and getting a templated, same look and feel tour as every other Matterport user.

Matterport Camera and Software (cont'd)

Matterport camera and software

Parents ARE buying into your brand so your Tour needs to reflect as a 'Brand Experience' and not templated or looking like your neighbouring school's tour. We strongly believe that having the content and interface on-brand and relevant to your marketing is key. We don't think any school would commission a website that did not have their brand colours, logo, fonts or styling present. So why choose this very important marketing tool that doesn't allow personalisation, especially if you'll be paying mid-to-top tier prices and an annual subscription fee?

Having said this, Matterport Tours, shot with the Matterport Camera will display fantastic photography and look premium. At 134MP, it is significantly more than any DSLR, one-shot or iPhone can achieve, but as mentioned above, you pay the price for the equipment investment, the software's annual fees which are high if you consider there are software features that you won't ever use.

PROS: EXCELLENT QUALITY PHOTOGRAPHY (DSLR OR MATTERPORT CAMERA), COMPETITIVE MID-RANGE PRICING, CAN ALL BE OUTSOURCED AND COMPLETED QUICKLY.

CONS: SECURITY RISK AND LONGEVITY OF A SUBSCRIPTION MODEL, UX/UI, LITTLE/NO DESIGN/EDITING/FLEXIBILITY, DOLLHOUSE AND MEASURING TOOL COULD BE PERCEIVED AS A GIMMICK, TILE PULLING.

iPhone I2 with LiDAR

The iPhone I2 an be used with Matterport software, but you suffer substantially in image quality and will encounter tile pulling or even tiles missing (leaving black squares on your image).

If using an iPhone but in alternate software, there's a huge learning curve and amount of skill and software required to create a usable Tour. To put into perspective, our RAW images go through at least 4 different softwares before being added into a 5th to create a Tour. They are not free and they are not easily learnt. Would you use an iPhone image in your Header banner on your website? If not, then don't try it here! Also, whilst you can get a 'dollhouse' effect (below) with LIDAR on iPhone I2, it has almost no use for schools as stated above.

PROS: KIT IS ACCESSIBLE, IMAGE QUALITY IS ACCEPTABLE, COULD BUILD A TOUR CHEAPLY.

CONS: KNOWLEDGE OF SOFTWARE, PHOTO EDITING, DESIGN IS COST AND TIME PROHIBITIVE

Software options

There are further considerations as to what software is used to build the Tour or if it's built using code.

Many software options allow for embedding of content, but the differences lie in how that content is displayed how much flexibility you will have customising that content to look well designed.

The main differences will be in what features can be included e.g. the flexibility of the software.

It is a good idea to investigate what features are available and what would be included in 'your cost' as many providers might quite to build the tour, but perhaps may not understand the sheer amount of content schools have to upload and that might add a significant cost to the tour if this is not discussed early in the sourcing stage.

Options like embedding content, on-brand assets & hotspots, in-built video chat, in-built analytics, and in-built forms, Facebook and WhatsApp integrations are all features to ensure engagement with your Tour and tracking of your Return on Investment (ROI) and should be discussed when you commission a tour so that your provider understands your expectations.

Photography and design issues to look out for
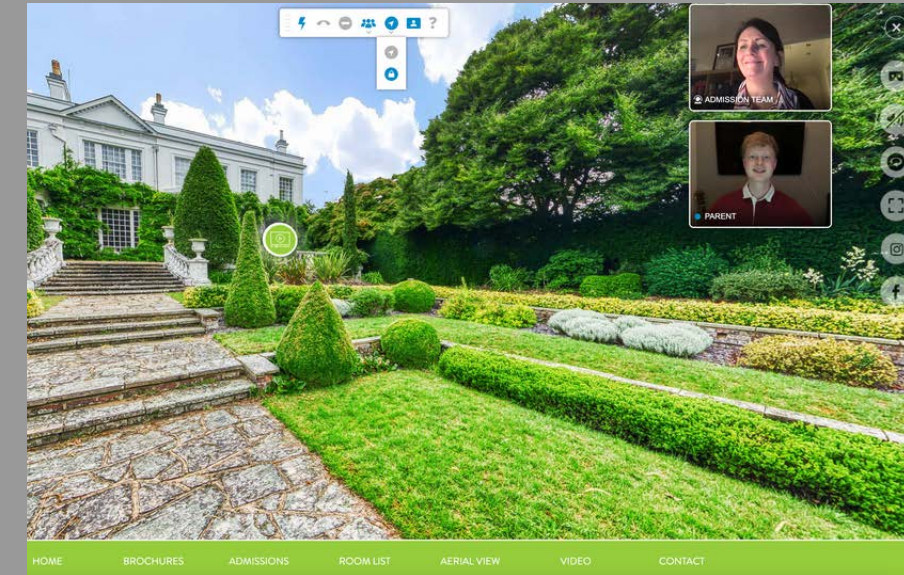
Photography and Design Issues

Photography

- **Chromatic aberration** (purple or green fringing) – look on 360 images at the edges of doors, windows and trees for purple or green hues. Many DSLR-shot Tours will suffer a very small amount of chromatic aberration, but for the most part, it should not be obvious.
- **Sun/shadow placement in the image** – if your main landing image is the front of the school, it probably should not be in shade, in fact, none of your outdoor imagery should be in shade unless it couldn't be avoided. Good photographers know how to avoid this.
- **Skies and grass** can easily be replaced in any shot in post-production, so there is very little excuse to show your school on a miserable grey day or with discoloured or patchy turf. We see that as lazy editing. If you are paying a cheap price, sure, but if you are paying a premium, your photographer/designer should be adding blue sky and green grass as standard at no additional cost.
- **Clutter in the image** – bins, signs, rucksacks, rubbish, displays on walls not straight, bundles of wires, anything distracting! These are all a sign of poor pre-production and the provider not guiding the school as to how rooms need to look. It is also a sign of no/little post-production Photoshopping on the provider's side.
- **'Blown out' windows** – windows that look 100% white and no detail is seen outside? Poor photography/exposure.
- **'Noise' in image / a 'grainy' image** – this is the sign of a one-shot or low MP camera and/or poor editing.
- **`Visible camera and/or tripod** on ground and in reflections – can you see the shadow of the camera and tripod? Good photographers know how to remove these.
- **Attention to detail** – This relates both to design and security – look for blurred car registrations, faces, pupil names? These are important LEGAL and safeguarding concerns that need to be addressed.

Chromatic aberration

BEFORE   AFTER

Photography and Design Issues

Design

- **UX/UI** – Can you view a providor's example Tours on a mobile? Tablet? If they have not made the Tour for mobile, they possibly don't understand your audience. Check how text and embedded images display. Does the gyroscope work? Is scrolling intuitive or does it feel backwards? Can you click the hotspots, can you read the menus and content? If you can't navigate or work the provider's other Tours, then it could be argued that your parents won't be able to navigate yours. 'Force orientation' or orientation agnostic is also good to look out for as there are pros and cons to both agnostic and force orientation.

- **Branding** – look out for school branding, colours, iconography and fonts. These things you may not notice on someone else's Tour as you don't know what you're looking for, but if you know to look for it, it will become glaringly obvious where extra care has been spent using bespoke icons (not the standard caret arrows like in Google Street View or the door icon) and school colours and fonts. Many softwares for Virtual Tours do not allow any sort of bespoke design work, icons or font choices so these are questions you need to ask a provider. "Can I use my school logo and colours for all the hotspots and menus and can you use "Times" font and can I move this element around and can my menu be bottom-justified/right-justified etc?" This flexibility in design is KEY! Otherwise, your Tour will look similar to every other school Tour that that provider creates.

- **Design Immersion** – things that bring you 'into' the 'scene e.g. lens flare, diegetic audio, animations, 'moving parts' such as TV playing a video, or light switches that change the scene. These are features that engage your audience and make exploring fun and exciting.

- **Menu Design, Layout and Content** – Is there a menu of headline content that is easily recognisable to force a user to a CTA? This might be sign up admission forms, fees, process description, contact names and emails, a welcome from the Head etc. How is this information laid out? Is it easy to use?

How much should you budget?

You wouldn't budget £500 for a website or a film, so why do this with a similar visual marketing tool?

Thousands of people will see your Tour some of our tours top 40,00 views for one school) so treat it like the powerful tool it is.

You will have this tool for years, it could be the only time a parent sees your school before parting with £15k. It's an emotional experience for them. So give them something to experience. Families will make decisions about your school based on this tool with other online marketing collateral, combined with a video meeting or phone call with the Head (which can be done inside our Tours) so making a good first impression with a premium quality tour is critical.

What do you want prospective families to think about how you present yourself? What is that impression worth to you?

Back to how much you should budget. Of course, it all depends on how much photography, how much design and how much content you require, but as a general guide...

- If the supplier uses a one-shot camera, expect to pay less than £1,000.
- If the supplier uses a Matterport camera + software or DSLR + any software, expect to pay £1,000-£5,000.
- If the supplier uses DSLR/Mirrorless Camera and bespoke software or codes the tour, you will receive a comprehensive, stand-out tour with a true premium feel and you will pay what you would for a website £3,000 – £6,000 at least. Some are 10's of thousands, especially if coded.

When looking at the higher end of the scale, do bear in mind, your provider is effectively building a website/microsite (that sits inside your own website) for you, with coding and creativity at the core of the 'build'. A premium Tour takes time, resource and design expertise. Don't undervalue that skill and don't undervalue what you will need this tool for in the future.

Summary

The need for a 360 Virtual Tour is not going away. We all hope COVID is finally on its way out but the safety concerns about 'contact' may linger for many months or years to come so 'distancing behaviours' (virtual meetings, reduced open day events) may be adopted for the foreseeable future.

Virtual Tours can all look the same if you don't know what to look for. This document is meant to help inform school marketers so it enables you to make the best decision.

We felt it apt to create this document after this year saw a three-fold increase in Virtual Tour providers. A large number of photographers and non-photographers took the opportunity to buy a 'one-shot' camera and try their hand at 360 Virtual Tours this year with varied results.   As Virtual Tours were previously only used in the real estate and construction sectors before COVID, there were no standards of delivery set in the education sector and marketers have had no experience in sourcing a supplier. As a result, we have witnessed a 'free for all' approach to pricing and delivery standards.

But if you read this document, and you now know what to look for and what to ask, you'll be able to invest your marketing budget wisely and create a long-standing brand tool that parents and pupils alike will engage with for years to come.

We hope you have found this a helpful checklist and as ever, we are always available for impartial advice and best practice techniques when it comes to Tours or anything school marketing related.

The views and professional opinion herein were collated and written by
Taralyn Cox, Alchemist in charge 360 Marketing Lab, and experienced digital marketer with 13 years' experience in the education sector

Meet our Team

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