XR IMPLEMENTATION GUIDE

What is eXtended Reality (XR)?

eXtended Reality (XR) is a basket of immersive technologies comprising

Virtual Reality (VR)



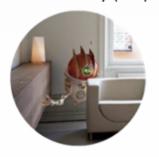
Digital environments that shut out the real world

Augmented Reality (AR)



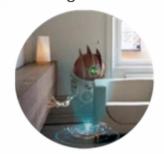
Digital content on top of the real world

Mixed Reality (MR)



Physical and Digital interact in real time

Holograms



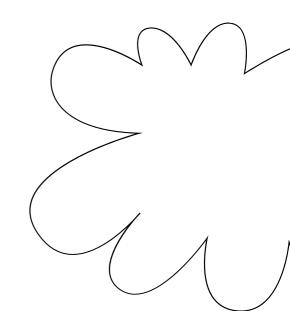
3D image created with photographic projection

The following sections will delve into use cases of XR in tourism that may inspire you with ways to take advantage of free tools available to enhance your offerings today.

Feel free to experiment and play around with the recommended tools.

Alternatively, you may consider engaging the services of some of the tech providers listed.

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XR USE CASES FOR MARKETING

Increase Brand Awareness with AR Filters

Businesses can use AR filters on social media to engage with their target audience in a fun and interactive way, which can help to increase brand awareness and build a stronger connection with their customers.

MAKE IT FUN TO ENGAGE WITH YOUR BRAND

AR filters can be used to create branded content that is more engaging and shareable; include your logo or a tagline, which users can apply to their own photos and videos. This can help to increase brand exposure and reach new audiences.

Visit Singapore AR filter

For example, the Visit Singapore Facebook AR Filter provided an interactive and engaging experience for tourists to discover some of the trendy spots and hidden gems that Singapore has to offer. With accompanying music and 3D elements, visitors could get a sense of which destinations would fit their "vibe" and take fun selfies and videos to share with their friends and followers, helping to increase brand awareness and footfall to the featured locations.



LET CUSTOMERS TRY YOUR PRODUCTS VIRTUALLY

AR can make the shopping experience more interactive and fun, which can increase customer engagement and make the experience more memorable. by allowing users to try on your product virtually, which could range from traditional attire to modern accessories, dress up in their favorite design, before sharing it on social media!

Snapchat Virtual Try On

For example, Snapchat provides an opportunity for brands to create virtual shopping experiences, having more than 250 million users use its augmented reality shopping lenses more than 5 billion times since January 2021.

In October 2022, they <u>collaborated with brands to roll out an AR experience</u> that lets users try-on, share with friends, and buy costumes of popular movie and TV characters (Disney, Minecraft, Transformers, Jurassic World etc.) directly in-app.

Other notable examples include <u>Amazon</u>, <u>Pinterest</u> and <u>Google</u> who have used AR to allow shoppers to try on makeup, apparel, and accessories.



Create a Storytelling Experience with WebAR and VR

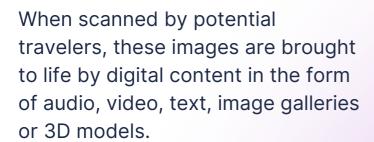
GET MORE OUT OF YOUR PRINT MEDIA

Level up your marketing and achieve greater customer engagement by transforming static images in your printed materials (advertisement posters, banners, brochures, catalogs, magazines etc.) into a multi-sensory interactive AR experience.



<u>Abenteuer und Reisen's AR</u> <u>magazine</u>

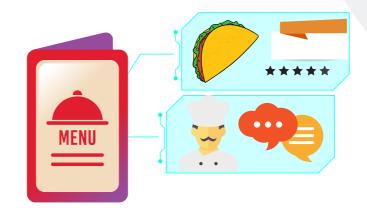
For example, Germany's largest travel magazine, <u>Abenteuer und</u>
<u>Reisen used AR</u> to captivate travelers and provide unique insights, generating further interest through videos, animations, downloadable city guides and other helpful tools for better trip planning.











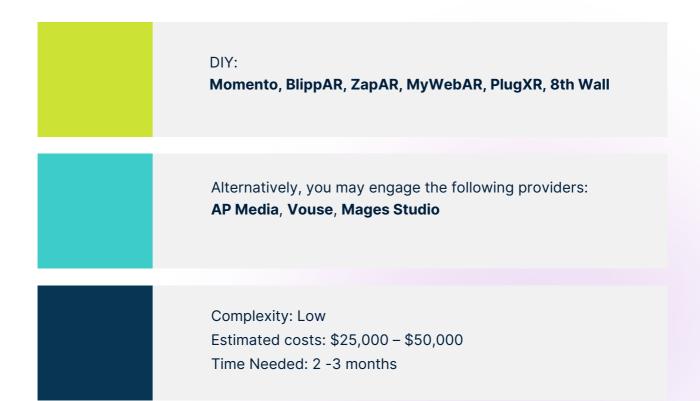
Wahaca's AR menu

For example, Wahaca used AR to showcase the vibrancy and deliciousness of Mexican food by bringing it to life with an AR menu, in a way that paper table menus could not.

When scanned by diners, the AR experience starts and diners are greeted by an animated 3D model of Wahaca co-founder Thomasina Miers, who instructs them throughout the AR experience.

Customers are able to navigate the menu, tapping on different menu sections to access pictures of dishes and descriptions, and additional information such as ingredients, allergens and sustainability practices.

The experience is based on WebAR technology, meaning that diners don't have to download any apps to see the menu.



Businesses operating within the travel industry have been quick to adopt virtual reality technology as it offers an effective way to provide travelers with an authentic preview of your tourism offerings – attraction premises, hotel amenities, landmarks, and scenic tours etc.

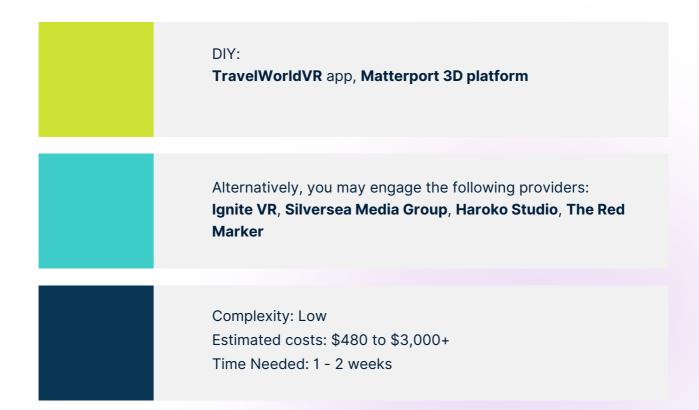
Travel customers typically require lots of information before they book a hotel room. This may, for instance, require them to read descriptions, view images, look at videos, read customer reviews or seek opinions on social media. The use of virtual reality can help shorten the buyer decision process and nudge them towards a purchase sooner.

Virtual Tour previews

New Jersey-based company Travel World VR utilised the technology to create a tool for travel agents to effectively market travel experiences. Companies can use VR productions to promote destinations and inspire customers to travel through 360-degree videos and cinematic VR productions.

Virtual hotel room previews

Hotels such as <u>Atlantis Dubai</u> and <u>Hyatt Regency</u> use VR previews to offer customers a 'try-before-you-buy' experience, showing the room accommodations, amenities and activities which guests can expect to enjoy.



Create High Impact Outdoor Advertising with AR Installations

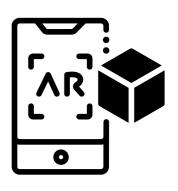
Puma's AR Out of Home advertising campaign

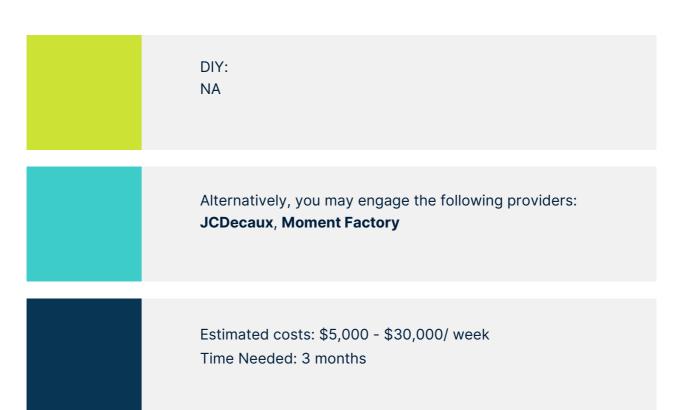
Puma used augmented reality to deliver an <u>immersive</u>, <u>high-impact experiential OOH campaign</u>.

The campaign prompted engagement and encouraged meaningful consumer interaction, allowing consumers to snap photos and create personalised content for social sharing.

Ads were strategically placed near retail outlets where the sneakers were sold, with directional information within the creative acts as an effective call-to-action that drove instore sales in addition to general brand awareness.







XR USE CASES FOR ONSITE EXPERIENCES

Attract Repeat Visitors with AR Activations

To create quick and easy AR experiences without much technical knowledge involved, you may consider using AR templates from various open platforms to enable the quick creation of AR experiences for seasonal events/campaigns.

For example, the Momento platform offers tourism related 3d models and templates, coupled with user friendly features such as a dragand-drop functionality. This reduces the need for vendor consultation and development costs which translates to cost savings of up to 60% and allows for XR experiences to be created in minutes/days as compared to months of custom integration.

Further save costs by leveraging TIH's 3D Model library which provides an assortment of unique Singapore-themed 3D Models. These media assets are designed to aid our Singapore tourism industry create their own VR and AR projects, enhancing their business and digital products.

- USER-FRIENDLY, NO-CODE
 PLATFORM ALLOWS YOU TO CREATE
 AR EXPERIENCES WITHOUT A SINGLE
 LINE OF CODE
- UPLOAD, EDIT AND MANAGE YOUR CUSTOM 3D ASSETS, OR CHOOSE FROM A LIBRARY OF READY-MADE 3D MODELS
- IN-APP EDITOR ALLOWS FOR EASY EDITING AND PREVIEW CHANGES INSTANTLY

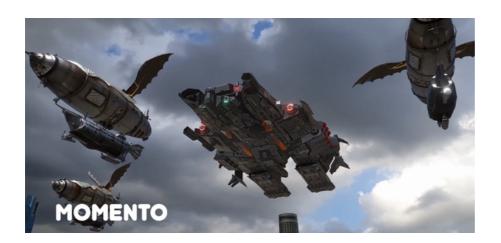
Use AR templates to easily create AR experiences with no technical knowledge required

99

60% cost savings

Start creating XR experiences in minutes/days

CREATE AR THAT COMPLEMENTS YOUR VENUE



Immerse your visitors in a world where anything is possible! Unleash your creativity to deliver larger than life characters that come alive and stunning visuals with the real world as your canvas - alien invasion, mythical creatures etc.



Here's How to **Get Started:**

DIY: **Momento**

Alternatively, you may engage the following providers:

Pinheads, Byteplus

Complexity: High

Estimated costs: \$25,000 to \$150k

Time Needed: 3 - 7 months

Create an immersive and interactive experience for visitors, making it more memorable and enjoyable. This can increase the likelihood of visitors returning in the future.

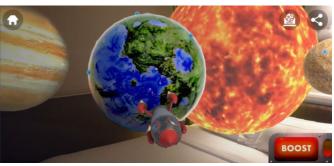
Grand Park City Hall

For example, Grand Park City Hall wanted to enhance their existing hotel rooms to attract more stays with young families. They used AR as a cost-effective way to transform the existing physical space instead of renovating and redesigning entire rooms.

With the launch of a space-themed inroom AR experience, they redefined the accommodation experience for family staycations into an engaging and educational one.

Some gamification within also allowed the customers to redeem rewards upon completion of in-app quests. The campaign not only saw an uptick in bookings but also repositioned Grand Park City Hall as a family-friendly hotel and increased their profitability.







Here's How to Get Started:

DIY:
Momento, ZappAR, 8th Wall

Alternatively, you may engage the following providers:
Pinheads, Byteplus, Meshminds, Mages Studio

Complexity: Medium
Estimated costs: \$25,000 - \$50,000
Time Needed: 6 - 9 months

Create Wow Experienceswith Interactive AR









Highly customised AR experiences allow for large scale, real time multi-user interaction experiences, enhanced storytelling, and gamification.

With cutting edge tools and a proven track record at demonstrating strong XR capabilities e.g. SkyAR with occlusion, enabling high accuracy and low latency across devices, **Byteplus** proprietary APIs allow tourism businesses to create best-in-class large-scale XR experiences on TikTok that could bring about significant branding and PR value.

Transform your marketing with futuristic, immersive campaigns that leave a lasting impression and increase brand recognition

- Multi-channel compatibility -Build AR experiences both on app and Web
- Wide variety of product categories with pre-built & optimised algorithms
- Accurate motion tracking
- Hyper-realistic graphics, animation and interactions

20%

increase in conversion rates for customers engaging with AR versus those that do not

Source:

https://hbr.org/2022/03/how-augmented-reality-can-and-cant-help-your-brand

TELL STORIES OF THE PAST





Transform the neighborhood sculpture into a storytelling anchor! Enhance storytelling by bringing the characters and elements in murals to life!

For example, "Changdeok Arirang" used 5G and AR to enrich the cultural experience at Changdeokgung Palace - allowing visitors to meet realistic life-size version of Korean royalty and take part in cultural activities.

Monster Day Tours, a local tour operator used AR to aid tourists guides in immersive storytelling in Woopa's guided tours. The experience invites visitors on a journey back in time with Ah Gu, a coolie as he shares his personal recollections of Singapore's humble beginnings.

Here's How to Get Started:

DIY:

Momento, SparkAR, Artivive, PlugXR, 8th Wall, Momento, BlippAR, ZappAR

Alternatively, you may engage the following providers: **MeshMinds**, **Silversea Media**, **Vouse**

Complexity: Low

Estimated costs: \$25,000 - \$50,000

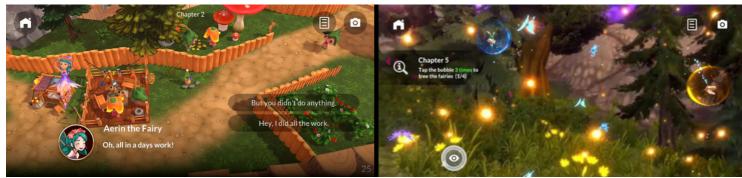
Time Needed: 3 months

TRANSPORT VISITORS TO AN ALTERNATE REALITY WITH AR PORTALS

AR can change the real world into something extraordinary or open a door to teleport users to another world completely - whether this be a branded environment, a live event happening elsewhere in the world or a digital twin of a store.

For example, <u>The Lost Fairy</u> is an AR storytelling experience co-created with Singapore Tourism Board set in Floral Fantasy, Gardens by the Bay which used an AR portal to transport users into a fairy wonderland.





Here's How to Get Started:

DIY:

Momento, WebAR Portals by 8th Wall

Alternatively, you may engage the following providers:

Pinheads, AP Media, Meshminds

Complexity: Medium

Estimated costs: \$25,000 - \$50,000

Time Needed: 3 - 5 months

GAMIFY AND DRIVE EXPLORATION

AR treasure hunts can help increase footfall to other areas or attractions, provide historical or educational information in an interactive way, which can increase visitors' understanding of the place and culture, leading to a more meaningful experience.

For example, "AR Explorer" by "Secret City Trails" increased customer engagement and satisfaction by providing a fun and interactive way to explore the city. The app guides visitors to explore a city by solving clues, completing challenges and discovering hidden gems and landmarks. It also provides information about the city's history and culture.



Here's How to Get Started:

DIY:

Momento, 8th Wall, Lens Studio, Wikitude

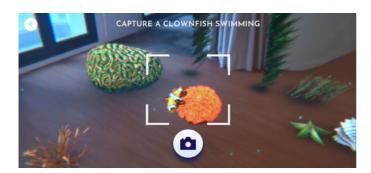
Alternatively, you may engage the following providers: **Pinheads**, **Silversea Media Group**, **Meshminds**

Complexity: Medium

Estimated costs: \$5,000 - \$7,000 per location

Time Needed: 4 - 6 months

Use AR collectibles to generate continued interest and eventually drive merchandise sales by allowing visitors to take home a piece of their experience as AR souvenirs which can be viewed anywhere, in full size or miniature version on a tabletop.









For example, the S.E.A. Aquarium AR app allowed visitors to collect AR collectibles of marine animals and plants as a means of post-visit engagement and generate social media buzz.

Here's How to Get Started:

DIY:

Momento, Unity, ZapWorks

Alternatively, you may engage the following providers:

Pinheads

Complexity: Medium

Estimated costs: \$25,000 to \$50,000

Time Needed: 5 - 7 months

ANNEX: SUMMARY OF XR IMPLEMENTATION TOOLS

Complexity	Industries	Type of AR	DIY Tools	Vendors
Low	Retail, Dining, Hotels, Attractions, Entertainment, Travel Agents, Tours, Precincts	Social Media AR: face filters, virtual try-ons	Lens StudioSparkAREffects House	 CraveFX Mages Studio MeshMinds
	Retail, Dining, Entertainment, Hotels, Attractions, Travel Agents, Tours, Precincts, MICE	Tabletop AR: AR menu, ad posters, banners, brochures, catalogues, magazines	MomentoBlippARZapARMyWebARPlugXR8th Wall	 AP Media Vouse Mages Studio
	Retail, Dining, MICE, Travel Agents	Interactive AR Screens	NA	JCDecaux Moment Factory
	Travel Agents, Hotels, Attractions, Dining	<u>VR Preview</u>	TravelWorldVRMatterport 3D	 Ignite VR Silversea Media Group Haroko Studio The Red Marker
	Tours, Attractions, Arts, Precincts	<u>AR Murals</u>	 Momento SparkAR Artivive PlugXR 8th Wall Momento BlippAR ZappAR 	MeshMindsSilversea MediaVouse

Medium	Tours, Attractions, Arts, Precincts	<u>AR Portals</u>	Momento 8th Wall	PinheadsAP MediaMeshminds
	Attractions, Tours, Precincts, Hotels	AR Collectibles	 Momento Unity ZapWorks	• Pinheads
	Tours, Precincts	AR Treasure Hunt	 Momento 8th Wall Lens Studio Wikitude	 Pinheads Silversea Media Group Meshminds
High	Retail, Tours, Hotels, Precincts, Cruise	<u>Bespoke AR</u> <u>experiences</u>	 Momento ZappAR 8th Wall	PinheadsByteplusMeshmindsMagesStudio
	Attractions, Hotels	AR Blockbuster Performance	Momento	PinheadsByteplus

For further information: The <u>Augmented Reality (AR) Inspirations Library</u> focuses on Tours and Precincts, Attractions, Hotels and Retail, allowing you to get started on building AR use cases for your business.