



Cover image: Guy 'Yug' Blomberg, Twitter

white paper

Pokémon Go, Augmented Reality and
the Future of Our Cities

Augmented Reality (AR)

“The live direct or indirect view of our environment where elements are augmented, enhanced or supplemented by computer-generated sensory input such as sound, video, graphics or GPS data.”

Tilly Caddy
Emerge Associates

THE POKÉMON GO phenomenon hit cities in July, 2016. Within days players were crawling over parks, streets and monuments, stirring up turf and disrupting traffic.

For the uninitiated, the **Pokémon Go** app is a free-to-play, location-based augmented reality game developed by Niantic for smartphones.

Players roam the real world in search of virtual monsters. The aim: to ‘catch ‘em all’ (so far, some 142 characters), level them up, battle and control gyms for your team.



International hype: Players crowd Central Park in NYC.

Allegra Frank @LegsFrank

The game uses GPS to create a map of PokéStops and gyms to visit, and its camera to show monsters standing or flying in the real world when the player is trying to make a catch.

The PokéStops are based on real world landmarks ranging from murals, sculptures, clock towers, monuments, churches, shopping malls, signs and even Arqua fountains (p4). Players are

encouraged to explore the local area, even if it is just through their smartphone screen.

Each PokéStop location has been imported from Niantic's previous reality game, **Ingress**,



Overload: Peg Paterson Park in Rhodes. Wai Keen Woon, Facebook.

which allowed its players to nominate places for new portals in their local area.

Pokémon Go players are currently not able to request more locations, so the distribution of Stops is irregular.

However, public and government lobbying can eventually result in PokéStops being removed. A Sydney council saw three Stops wiped from Peg Paterson Park in Rhodes, a notorious site for monster hunting and a nuisance for neighbours.

(For a fan's description of the former Rhodes Poke-centre, see this **Requiem**.)

The game is a fascinating case study for the unexpected ways

augmented reality is beginning to impact our cities, parks and public spaces.

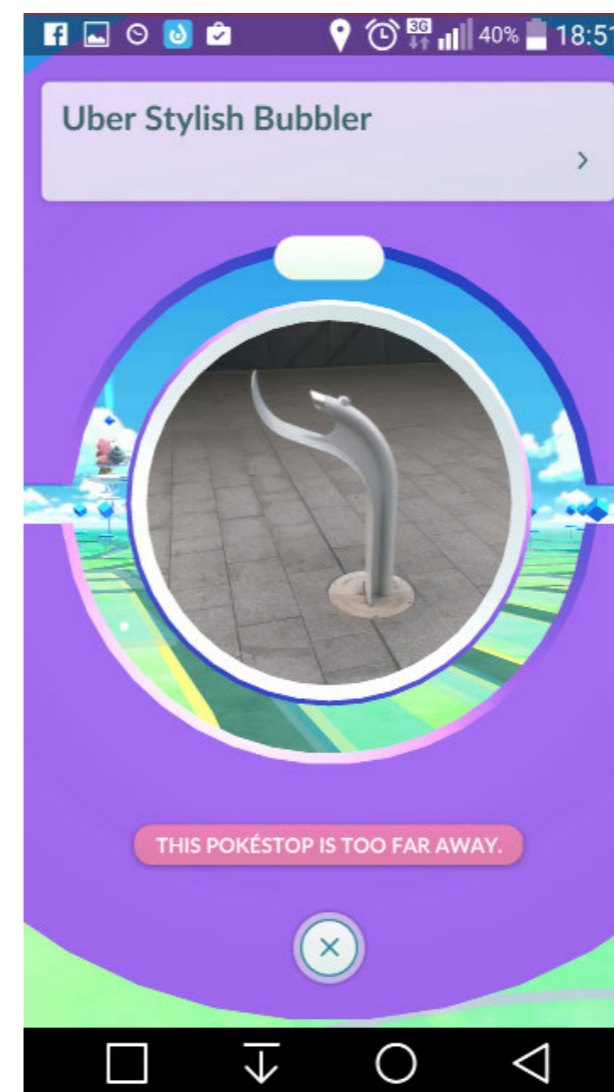
We are seeing streetscape interventions to support our connection to smartphones, such as in-ground traffic lights to help pedestrians while surfing. How will the landscape follow?

In **Hyper-Reality**, a video simulation of augmented reality taken to a critical level, Keiichi Matsuda imagines green strips in cities that morph and change with the needs of pedestrians and traffic. One moment, a park, the next, a bus lane.

Could landscape architects be asked to design virtual sites, with multiple variations?



Hyper-Reality: Park becomes bus lane. Keiichi Matsuda.



Arqua Fountain PokéStop. Tiffany Hoy.

StreetChat asks an architect, landscape architect, academic, futurist and millennial to describe AR's current and potential impacts on our cities, through the lens of Pokémon Go.



Dick Nugent
Corybeare Morrison International



Anthony Brookfield
HASSELL Studio



Gillian Lawson
OJT



Mark Pasce
Futurist



Tilly Cadley
Emerge Associates



Dick Nugent Architect

Associate Director at Conybeare Morrison

WALKING HOME through Redfern Park I came across a very unusual scene. Dozens of people appeared to be aimlessly walking around the park in the twilight, focused on their smartphone screens. For a second I was confused. Then I remembered Pokémon Go.

What do we make of this activity? What does it portend for the future of our cities?

It wasn't that long ago that computer generated imagery was a poor cousin of photography and film. Now it exceeds their capability in detail, action and graphic manipulation as it paints a virtual world within our computers, and by extension, our minds.

Inevitably as the virtual world has gotten more real, the real world is becoming more virtual. We see the blurring of boundaries suggested by films such as 'Mary Poppins' and 'Total Recall.'

This is now possible as we routinely carry devices that allow us to access the virtual world wherever we are. No longer tied to a fixed place to access virtual content, such as at work or home, we become the access point and our world becomes the virtual platform.

The 'point and shoot' aspect of smartphones is seductive as a portal. It is only a matter of time before we can point our smartphones at anything and get an information reading.

Is this a good thing?

Pokémon Go suggests that a layering of the virtual onto the real world can be a way of bringing people into a common place or a common activity. This can be a good thing.

One can imagine that with a small tweak to the gaming program another layer of interactive capability can be built into the



Virtual unreality: Pokémon in the park. Allegra Frank @LegsFrank

system that ties players not only to finding the Pokémon Go icons, but to sharing or trading them with nearby players.

This could happen simultaneously around a city, a country, or the globe, with all players aware of each other.

Public interaction can now take place in response to virtual activities and larger audiences can participate in events without needing to be in the event space itself.

This suggests, perhaps, that the design of public space will need to respond to this expanded, yet somewhat less defined social role.

As a 'form follows function' approach to defining public space becomes less relevant, the

timeless approach to the design of public space that preceded the modern era, where form and symbol take precedence over functional identity, may reassert itself.

The narrative of place will then become the defining identity and drive the physical expression.

As a new and inevitable part of the public life of these places, virtual activity can come full circle, rewarding those who reach out in real time and place to others in collaboration.

As John Naisbitt noted, way back in 1982, in 'Megatrends' – high tech will lead to high touch. Julie Andrews and Arnold Schwarzenegger would probably agree.



Anthony Brookfield Landscape Architect

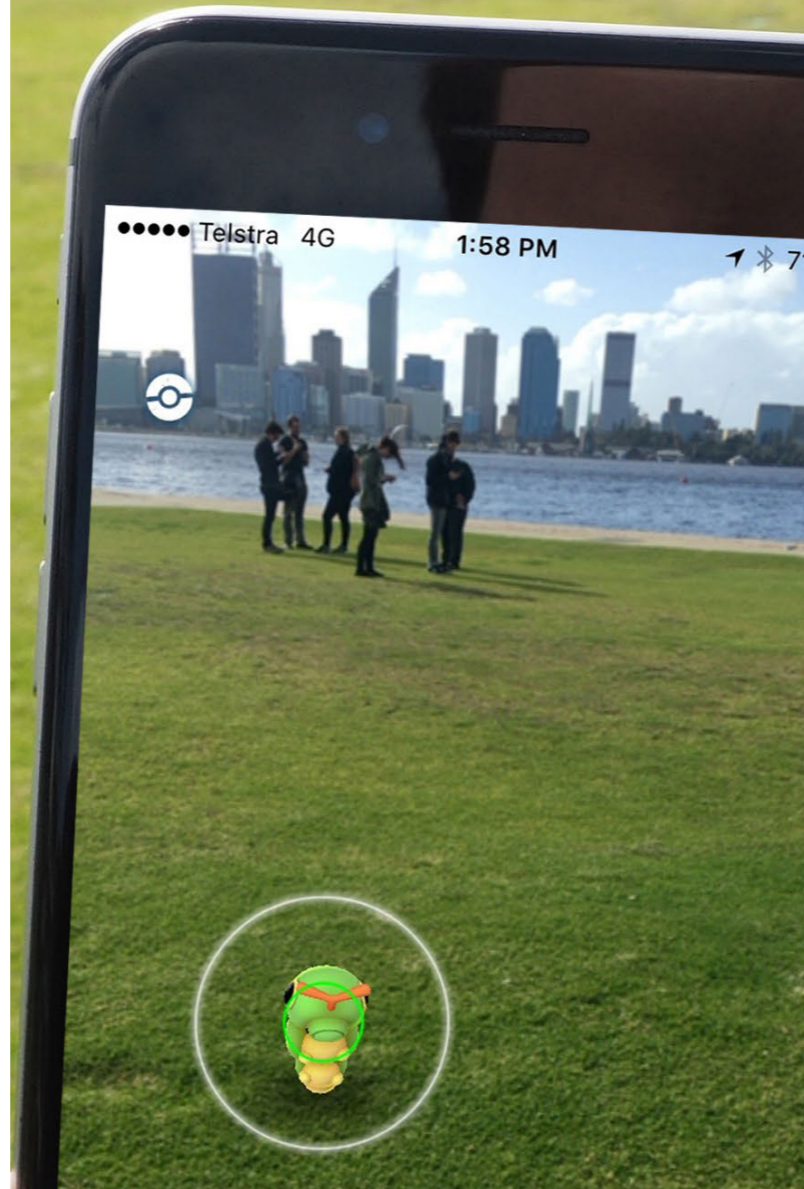
Principal at HASSELL

OBSERVING the emergence of AR technologies from my position as a landscape architect, it seems there is tremendous potential to significantly reframe how we use, appreciate and experience the public realm.

The ability to observe at a glance embedded information such as hotel room availability, office vacancies, train timetables and even restaurant table availability will be very popular.

Even more elevating is being able to learn of the rich and layered histories within our great museums and which hide behind our city buildings, streets and open spaces.

The activation and tourism potential for this technology does seem to be immense and it will require place managers to come



Active: Swan River in Perth. Ryan Northover.

together with major technology providers to give people an experience they will find invaluable.

I am keen to see this technology evolve in a balanced fashion, whereby people trying to sell us stuff is balanced with providing

“There is tremendous potential to significantly reframe how we use, appreciate and experience the public realm.”

information which will enlighten our experiences and bring us together as people in the public realm.

Pokémon Go has obviously made quite a splash around the world and has provided a lot of fun for those who love innovative ways of gaming.

Anything that gets people out of their homes to enjoy the outdoors is a good thing and there does seem to be a movement where people combine fitness with playing the game.

I used to be a runner and it did get a little boring at times so I'm sure if I was still training I'd be chasing little virtual characters around the city.

I think everyone is aware of the concerns the game has caused from people not being conscious of their surroundings, the disrespecting of places of worship or remembrance, to the even more sinister issues around

the unsavoury 'luring' of players to dangerous situations.

It is a strange sight to see droves of people walk (sometimes in the road) with their heads down and of course it leads one to lament what they might be missing.

As far as how this stuff will impact our cities I can see the good outweighing the bad.

I think the reframing of cities as places where people come together to enjoy each other's company, as opposed to the many lifeless centres which emerged in the latter half of the 20th century, has been a delight to see.

Places are much more thought out and managed now and as long as these new technologies do not get in the way of truly meaningful interaction and we respect each other's boundaries I can see augmented realities significantly enriching the experience of living, working and playing in our cities.



Public attention: Southbank, Queensland. Gillian Lawson.



Dr Gillian Lawson Academic

Head of Discipline,
Landscape Architecture,
Queensland University
of Technology

TAKING COMPUTING power to the street has become common-place but Pokémon Go now offers citizens the ability to not only create their own decision support tools within the city, but to engage in social 'play' in both augmented reality and physical reality at the same time.

For landscape architects, urban designers, planners and architects, this offers some interesting challenges in terms of place-making for the new phenomenon of mixed reality.

The physical city will now need to accommodate social hubs for friends, families and individuals to converge and be captivated by virtual creatures on mobile devices.

Can our real world places compete with such location-based augmented reality games for the public's attention?

PokéStops and gyms can attract customers for local businesses, create surveillance of deserted urban spaces, generate interest in local historical sites, bring players to places of worship, museums, art galleries and sports events.

Of course, there are always the risks of large groups of people becoming a nuisance for regular users of places, being distracted as they cross roads, stopping or walking into others on a crowded footpath, intruding on sacred places, entering prohibited areas, creating excessive litter and being targeted by criminals.

Whether you love it or hate it, Pokémon Go has introduced a new era of urban spaces that must respond to the virtual world rather than the other way around.

It may have even spawned a new type of urban designer who thinks firstly of the digital space and secondly of the physical space.

What will that mean for our urban environments? A richer experience for all, we hope!



Mark Pesce

Futurist

Inventor, broadcaster
MarkPesce.com

POKÉMON GO immediately highlighted the need for some sort of zoning to control how real space can be repurposed by AR applications.

A restaurant may find it highly lucrative to have a PokéStop inside or on its doorstep, but a private residence would find it greatly annoying to have troupes of visitors coming at all hours, and in some situations, game playing is absolutely inappropriate or dangerous, and should not happen at all.



Please PokéStop. Michelle Lynn, Twitter.

None of that was visible before Pokémon Go, but is completely obvious after it.

The need for enforceable property rights to cover the public uses of AR on a particular land may have never been envisaged by our existing property codes, but surely are a logical extension of them.

At that point, cities have created another tangible asset providing rights to the intangible.



Pokemon No. Eddie Gi, YouTube.



Tilly Caddy

Millennial

Landscape Architect,
Emerge Associates

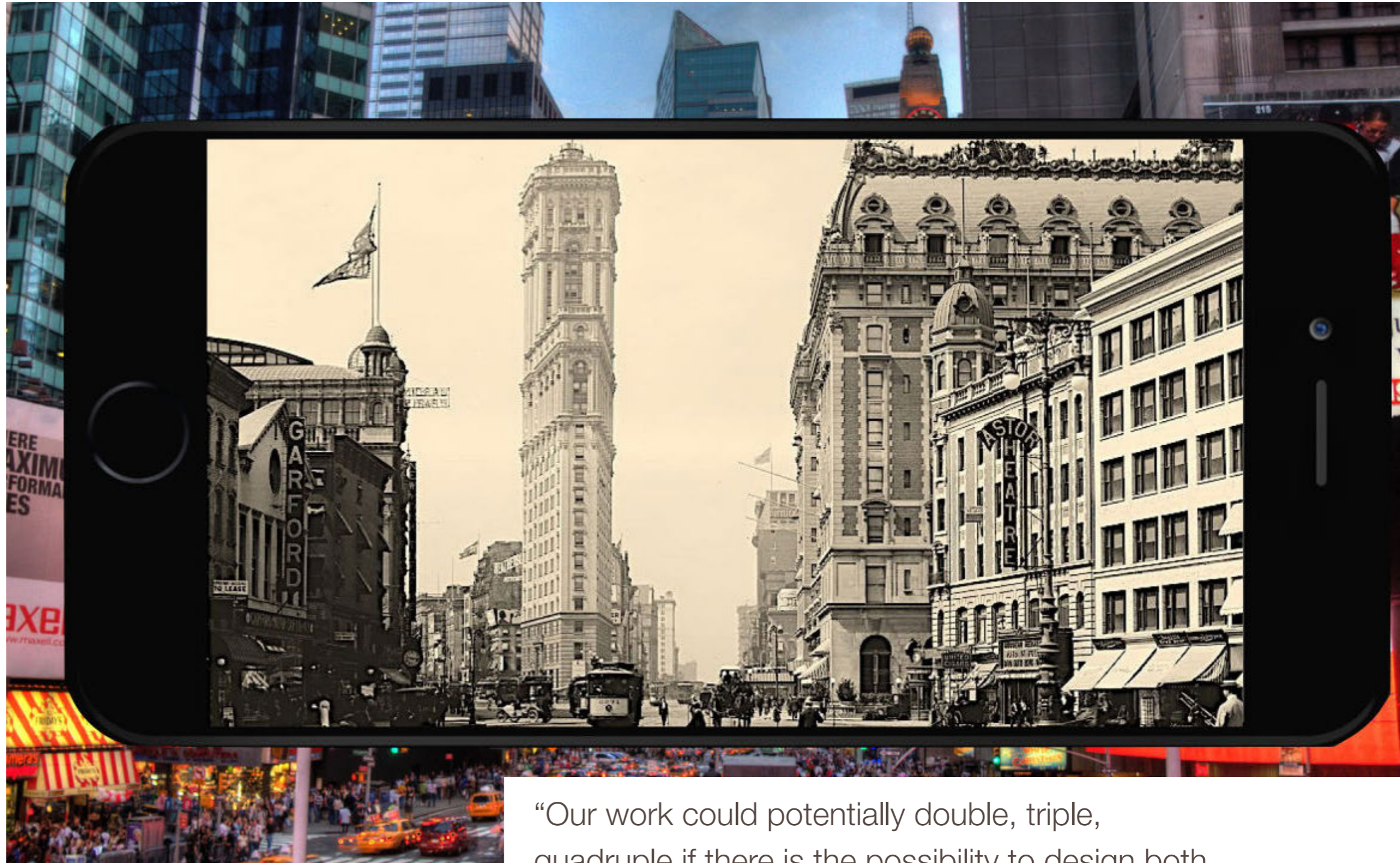
AUGMENTED REALITY is the live direct or indirect view of our environment where elements are augmented, enhanced or supplemented by computer-generated sensory input such as sound, video, graphics or GPS data.

How does AR impact on our cities? Well it's up to the individual.

At the moment AR is an activity one participates in through choice, with or without it our cities and lives will continue to chug along.

However those that are not aware of its potential might be missing out on additional layers of information and limiting their experience of a place.

Some 80% of Australians own a smartphone (**Deloitte, 2015**). That means the average Australian holds a key to the window of this phenomenon (as long as you haven't blown your data allowance).



Smartphone time portal. Co.Exist, Pivot.

“Our work could potentially double, triple, quadruple if there is the possibility to design both the physical and virtual spaces.”

The recent explosion of Pokémon Go hit the streets, public space and media hard. So hard that 1000sqm of turf at Kings Park in Perth has been replaced due to the increase in foot traffic.

Unlikesome, I don't see the replacement of turf as a negative. If Pokémon Go is getting people off the couch to visit spaces they usually wouldn't then surely the positive benefits for our city outweigh the negatives.

As a twenty-something there is part of me that sparks nostalgia when Pokémon is mentioned.

I have fond memories of watching the animated series every weekday before school without fail, trading Pokémon cards at recess and lunch in my primary school undercroft (my prized possession; a holographic Raichu).

So apart from the disapproval of a few friends I found it an easy decision to download the app and play.

A premise of the original Pokémon developed for Gameboy in 1995 is 'rare' Pokémon are mainly found in national parks - a nice transition into the 2016 world of Pokémon Go where

users travel to iconic public spaces to 'catch' and add to their collection.

You will be pleased to read that during my weekend of Pokémon Go-ing, apart from using all my data, I learnt a few things about Perth that I didn't previously know.

Most notably when at a PokéStop close to my house, the app taught me the Nyoongar name of the site is Dweerlanup, the Place of the Dingo Spirit. Which upon reflection is highlighted in the public art at the site that features dingoes.



Big potential: AR goggles. Gigaom, Atheer.

Going forward AR presents many opportunities (some already in place) for landscape architects to evolve our public spaces, add additional layers of meaning, engage in storytelling and encourage space activation.

This can take the form of art exhibitions, virtual tours of historic and past landscapes and buildings or as a tool to enable clients to visualise future projects (some of which companies such as **Felix**, a multidisciplinary practice in Perth, have been undertaking for years).

When asked his thoughts on Pokémon Go's influence on AR, Felix director Rene Van Meeuwen couldn't be more positive. He says, 'It's a good

beginning point, getting people used to Augmented Reality is an important learning shift.'

Felix uses AR as a sustainable platform, blurring the lines between hardware and software. If a building footprint can be decreased with supplemented virtual spaces, this creates a positive paradigm shift for development industries and in the long term will result in a decrease in urban sprawl and landfill.

At this stage it might be unpredictable what form AR will take in the future so for now it may be worth designing spaces that discourage the trampling of garden beds or creating outdoor gallery spaces that are empty rooms awaiting commissioned VR artists to populate.



Kings Park, Perth. Ryan Northover.

“AR presents opportunities for landscape architects to evolve public spaces, add additional layers of meaning, engage in storytelling and encourage space activation.”

At the end of the day our work could potentially double, triple, quadruple if there is the possibility to design both the physical and virtual spaces.

The experience of AR has provided a new avenue when referencing spaces that are Universally Accessible or All Abilities.

From a health perspective AR could revolutionise mental health and aged care.

Imagine putting on AR goggles and spending the day exploring spaces outside of the walls of a care facility. Patients and residents could be

transported to different countries, fulfilling bucket list dreams without the limitation of physical fitness or ability, assistance, money and time.

For several minutes one could be immersed in the Great Migration through Africa, or travel via gondola down the canals of Venice all while being hooked up to a dialysis machine. Surely this would aid holistic care via brain and mood stimulation.

Pokémon Go has been a catalyst into the world of AR possibilities, with potential to revolutionise how humans engage with the space around them.



A genuine Street Furniture product
delivers excellence in Australian design
and manufacturing quality.



Australian Institute
of Landscape Architects

Supporting Corporate Partner

As a design-focused manufacturer, Street Furniture Australia is dedicated to improving the public realm with innovative and timeless products. Since 1986, our company has furnished more than 25,000 projects in Australia and abroad.

Whether a standard, tailored or a wholly custom-built product is required, Street Furniture Australia has a range of solutions for your urban or landscape project.

Please phone our sales team, or visit our website for more information.

1800 027 799 streetfurniture.com

OFFICES IN SYDNEY, MELBOURNE, BRISBANE, ADELAIDE AND PERTH

 **street
furniture**
Australia