

White Spots

A Journey to the Edge
of the Internet

Jacqueline Hassink
Bregtje van der Haak
Richard Vijgen

Exhibition, Book, Film, App



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Top: World coverage map, © 2015 Mosaik Solutions, LLC. Design: Richard Vijgen.

Bottom: screenshot from the *White Spots* app.

1. Introduction

Digital networks are forever expanding. Locations without smartphone reception, fibre optic cables or a Wi-Fi connection are increasingly hard to find. If tech companies have their way, the remaining white spots on the digital connectivity world map will soon disappear, leaving no place on earth without network coverage. Are we heading towards an always-online existence or can we still choose when, where and why to be sometimes-offline?

The *White Spots* app visualises the invisible digital networks that surround us and takes users on a journey from the 'hot spots' to the 'white spots'. It invites users to take a picture and contribute their offline experience to the newly designed world connectivity map.

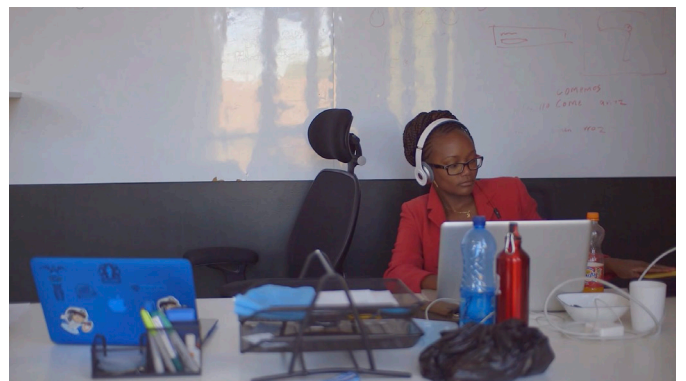
White Spots is a collaborative transmedia project by artist Jacqueline Hassink, information designer Richard Vijgen and documentary filmmaker Bregtje van der Haak. The project brings together the large-format (analogue) prints by photographer Jacqueline Hassink, a documentary film by Bregtje van der Haak and the app and data visualisations by designer Richard Vijgen. The narrative on multiple platforms aims to engage viewers and challenge them to think and talk about the consequences of universal connectivity.

The *White Spots* project as a whole is the work of various producers: VPRO TV broadcast two Tegenlicht ('Backlight') programmes and organised meet-ups, VPRO Digital released the app in May 2016, BALDR Film will release a documentary in the autumn of 2017, Hatje Cantz Verlag will publish a book and Paradox is responsible for the travelling exhibition.

<http://www.paradox.nl/whitespots>

<http://www.white-spots.net>

White Spots is supported by VPRO, Creative Industries Fund NL, Mediafonds, Mondriaan Fund and SIDN Fund.



Narratives from the offline world by Bregtje van der Haak, taken from her VPRO Backlight broadcasts, featured in the *White Spots* app.

2. Project description

Even in our bedrooms we are connected to the internet. Even if we do nothing, our smartphones are buzzing, our Facebook timelines and mailboxes never sleep. As soon as we wake, the first thing we do is grab our mobile phones, in order to plug into the world. As if we are not really alive without those connections.

The internet of things helps devices communicate silently through radio waves. The digital thermostat anticipates our movements and switches on. Waving a chip in front of a sensor is enough to pay for groceries. Even though the technology does not work as fluently as advertisements claim, our entire lives are increasingly embedded in communication technology.

Network coverage is nearly universal. Where can we still be beyond the reach of the mobile phone? We are digitally connected to others almost 24/7, detached from the physical world as smartphone screens constantly force our minds to wander 'elsewhere'. But is that to a separate virtual world? Because even the real world feels different when we are connected. We are here, but at the same time we are somewhere else.

Because of the virtual blanket of information networks, geography acquires a different meaning. New borders arise, between areas with or without coverage: we now distinguish between hot spots and white spots. And that has real consequences. People move away from locations without internet access, while in the desert there are traffic jams in those spots where a well-aimed mobile phone can pick up enough signal to send a text message.

Internet access is a necessity of life for many, and is even considered a human right by some. For the growth of tech companies like Google and Facebook, the expansion of networks worldwide is essential. The political and socio-economic benefits seem so obvious; the expansion of technological potential prompts such euphoria; the value of a worldwide web of digital networks is assumed to be self-evident. Nevertheless, there are downsides. People who are sensitive to electromagnetic waves must seek refuge from the rapid advance of the networks. Others seeking privacy and concentration value a degree of silence, while scientists need stillness to be able to hear the universe. The first cafés banning the mobile phone already exist, giving customers the chance to meet one another in real life, to enjoy real social interaction undistracted by the virtual.

If we look closer, the world is overflowing with instances of this dichotomy between a need to continually connect and a conflicting desire to disconnect. Examples from popular advertising include Kit Kat's Take a Break campaign for free 'no-Wi-Fi zones', and Polar Beer's mobile-phone nullifying bottle cooler, while at the other end of the spectrum there is Volkswagen's tongue-in-cheek 'connected dog' spot. A longing for disconnection is becoming stronger in Western countries, yet it is still barely discussed.

In her project *Disconnectivity in the Digital Age*, Pepita Hesselberth investigates this so far under-researched trend towards voluntary disconnectivity in our media-saturated culture: digital detox holidays, phone-stacking dinners, virtual suicide, a year without the internet. In a culture obsessed with social networking, participation and connectivity, to disconnect has come to mean going offline: to reclaim a presence in the physical world; to revitalise face-to-face communication; to salvage the actual from the virtual; to (temporarily) obliterate one's online identity. To disconnect signals a desire to reconnect: with one's offline identity, with friends, with the spiritual values of life, with one's natural environment,



© Jean Counet / VPRO

Protective clothing from Holland Shielding Systems as featured in Bregtje van der Haak's VPRO documentary *Offline is the New Luxury*.

with the world at large. For every form of connectivity, desired or feared, there is a corresponding form of disconnectivity, dreaded or longed for.

The transition to a fully connected world deserves better scrutiny. What kind of world will it be in which 100% coverage is achieved – a world with no white spots on its map? Enveloping our planet in a digital blanket influences our political and social connections, but also our sense of place and identity. Being continually connected takes a psychological toll, it impairs our concentration, shreds our thoughts into a million pieces, impacts our health and can elicit in almost anyone the deep desire to be ‘gone’ from the connected world for a while, to be released from the pull of digital forces.

The aim of this project is to produce a joint report from the white spots on our map. Each contributor draws on their own background and perspective as a designer, documentary maker and visual artist. The variation in viewpoints only strengthens the project, with the different authors providing diverse entries on the theme. What does it mean to be online, always and everywhere? Where are the borders in the digital world? To promote dialogue on these questions, we aim to develop *White Spots* on several platforms and focus the public eye on the online world and networks, by making them visual and tangible. The experience and sharing of stories is central to this project. It is not intended as a manifesto against the internet, but rather seeks to interact with a wide, relatively young audience about our thoroughly technological lives.

3. Goal & Relevance

White Spots is a transmedia project. Its goal is to research the borders of the networked world by translating it into visible form, and to start a public debate on the implications of being continuously connected, via a variety of global platforms.

The Netherlands used to be a pioneer in the field of internet and media art. It is still known for its strong documentary film tradition and its international trailblazing in documentary photography as well as for graphic and interactive design. *White Spots* combines aspects from all these disciplines, investigating the networked society in a presentation that is both spatial and virtual.

This investigation takes place within a self-chosen interaction between prominent visual artists and the securing of appropriate funding. The relevance of the latter may not seem obvious to an outsider, yet within the competitive sphere of the arts, it may be considered proof of success.

Contributions from the Mediafund (film by Bregtje van der Haak), the Stimuleringsfonds Creatieve Industrie (app by Richard Vijgen) and the Mondriaan Fund to the production of the basic elements of the project, have been indispensable in the planning and realisation of *White Spots* as a whole.

The theme of the networked/non-networked world is highly topical. For the migrants seeking a safe haven in Europe, the use of the smartphone and its online applications like WhatsApp and Google Maps cannot be taken for granted as it can for the continually connected citizens of the West. The internet is like water: we expect it to be available to us always and everywhere (and of good quality). Even though network coverage is growing faster than the provision of safe drinking water, many people are still deprived of the privilege of being able to communicate online.



Offline is the New Luxury Meet Up at Pakhuis de Zwijger, Amsterdam, 11-05-2016

4. Authors

Jacqueline Hassink (b. 1966) is a Dutch, New York-based conceptual artist specialising in photography. She is best known for her projects relating to globalisation issues, such as *The Table of Power* (1995, 2011), *Car Girls* (2008) and *View, Kyoto* (2014). Hassink was involved in the project from the start. Initially, her attention was focused on photographing landscapes where there is no mobile phone connection or Wi-Fi. The collaboration with Bregtje van der Haak and Richard Vijgen directed her towards alternative environments: areas deliberately without internet access, varying from digital detox hotel rooms in Baden-Baden to corporate Wi-Fi-free rooms in Samsung's headquarters in Seoul. Hassink's *Unwired Landscapes* were taken using a medium-format analogue camera. The resulting images demonstrate the physical, disconnected side of *White Spots*. Additionally, underlining our continuous interconnectedness, Hassink used her iPhone in a series called *iPortrait* to portray subway passengers in Seoul, Tokyo, Moscow, Beijing, Shanghai, Paris, London and New York, all engrossed in their little screens.

Bregtje van de Haak (b. 1966) is an award-winning journalist and documentary filmmaker. She works for VPRO television as well as experimenting with web-based productions such as *Multiple Journalism* (2015). She has been involved with two broadcasts on global digital networks. From this documentary background arose the idea for an autonomous *White Spots* feature, Van der Haak looked for stories of people's experiences in white spots and their motivations and strategies for going to or living in these places. They include those who have fled the connected world because they are allergic to electromagnetic waves and visitors to luxury spas where rooms are equipped with cages that can be activated to exclude radiation. For these people, white spots are havens where they can catch their breath. But equal attention is paid to the digital have-nots; those who live in areas (digital wastelands) where there is no investment into networks by companies or governments, because it would not be profitable either from an economic or a sociological standpoint.

Richard Vijgen (b. 1982) is an information designer in the field of dynamic and screen-based media. His work is rooted in the digital domain but always connected with physical or social space. He previously worked with Bregtje van der Haak on *The Atlas of Pentecostalism*, a dynamic online database on the fastest growing religion in the world. For *White Spots*, he developed a map that illustrates the global geographical reach of all public telecom operators. The *White Spots* world map combines the coverage of more than 2,000 telecom operators with data centre locations, their position, and cable connections over land and sea. It thereby paints a realistic picture of worldwide connectivity. The map is based on the most complete and up-to-date data available in the telecom industry.



Moscow 27 © Jacqueline Hassink



Seoul 54 © Jacqueline Hassink

Hassink has used her iPhone to portray subway passengers in Seoul, Tokyo, Moscow, Beijing, Paris, London and New York, sucked into their little screens, in a series called *iPortrait*. © Jacqueline Hassink

5. Work

White Spots is a multimedia project combining the work of documentary filmmaker Bregtje van der Haak, visual artist Jacqueline Hassink and information designer Richard Vijgen, all described on page 11. Their contributions go beyond the frontiers of the networked world, exploring unwired landscapes, communities and lifestyles, questioning the need to be always 'on', plugged into a single, seamless global tech-topia.

Through documentary storytelling, photography and virtual reality experiences, *White Spots* engages the senses, enhances awareness of invisible networks and tells personal stories from some of the remaining unwired spaces on the planet. The three bodies of work produced by Vijgen, van der Haak and Hassink are all interesting in their own way, and can stand alone as individual projects. Nevertheless, the effect of combining them vastly intensifies the project's appeal and message. Their separate works come together both in the app, which can be downloaded from the App Store & Google Play, and in the exhibition currently being prepared at Paradox, which is described more fully below.

Interactive app & virtual reality - Richard Vijgen

The *White Spots* app features a connectivity world map, a network scanner, a GPS-based route planner and a series of virtual reality experiences. The scanner displays actual cell tower networks surrounding us at any given location in real time and the route planner guides users who want to exit the networked world to the nearest white spot. After returning to the connected world, users are asked to submit their offline experience to the app.

Documentary film & television broadcasts - Bregtje van der Haak

A new class of modern-day refugees has emerged. They suffer from hypersensitivity to electromagnetic radiation and are literally on the run from the ever-expanding, invisible networks. Using the scanner app as a guide, this road movie follows the runaways in their search for a safe place off the grid and meet the doctors, entrepreneurs and politicians who are catering to their needs. The documentary converts actual Wi-Fi and cell tower networks into evocative audio signals and visual images. Additionally, Van der Haak has directed two VPRO Backlight television documentaries. *Access to Africa* explores internet access on the African continent, and *Offline is the New Luxury* questions the ubiquity of digital networks.

Unwired Landscapes & iPortrait photography projects - Jacqueline Hassink

The Japanese island of Yakushima has limited mobile phone reception. Artist Jacqueline Hassink visited the island in 2012 and spent weeks out of range. She started to explore the attractions of being disconnected from the digital grid and developed a photography project on historic landscapes far removed from the wired world. With her photo series *Unwired Landscapes* Hassink explores how the world is being divided into new geographical areas, the connected and unconnected. Her book *Unwired Landscapes* will be released in September 2017 by Hatje Cantz Publishers. Alongside *Unwired Landscapes*, Hassink has also produced a series called *iPortrait*, for which she stayed underground for weeks, observing and portraying commuters with their smartphones.



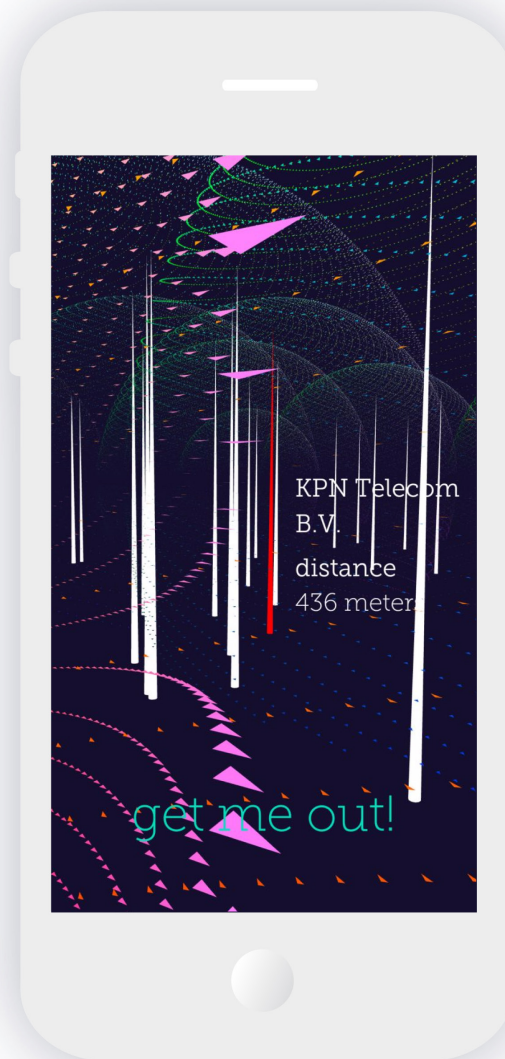
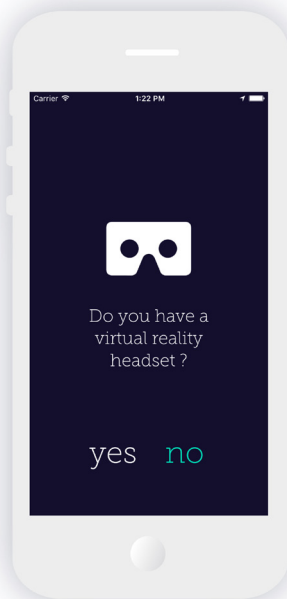
Shiratani Unsui-kyo 7 © Jacqueline Hassink



Snæfellsnes 4 © Jacqueline Hassink



Room 622, 3 © Jacqueline Hassink



Screen shots from the *White Spots* app. On the right screen, you can see the wireless signals that are around you with the *White Spots* “Data Scanner”. The scanner visualizes all 2G, 3G and 4G cell towers within reach. © Richard Vijgen

6. Platforms

- a. App
- b. Exhibition
- c. Television broadcasts
- d. Film
- e. Book

a. App

Do you ever feel an overwhelming desire to escape from the unstoppable stream of information? The *White Spots* app is a tool that makes people aware of the electromagnetic cloud we live under, and offers information on the increasing density of the digital atmosphere.

The app visualises the information networks in our immediate surroundings. It features a special scanner that uses GPS data to guide the user to the edges of the internet, anywhere on earth. When the traveller arrives at a white spot (a white spot on the map indicates no access to internet or mobile signal), the app shuts down.

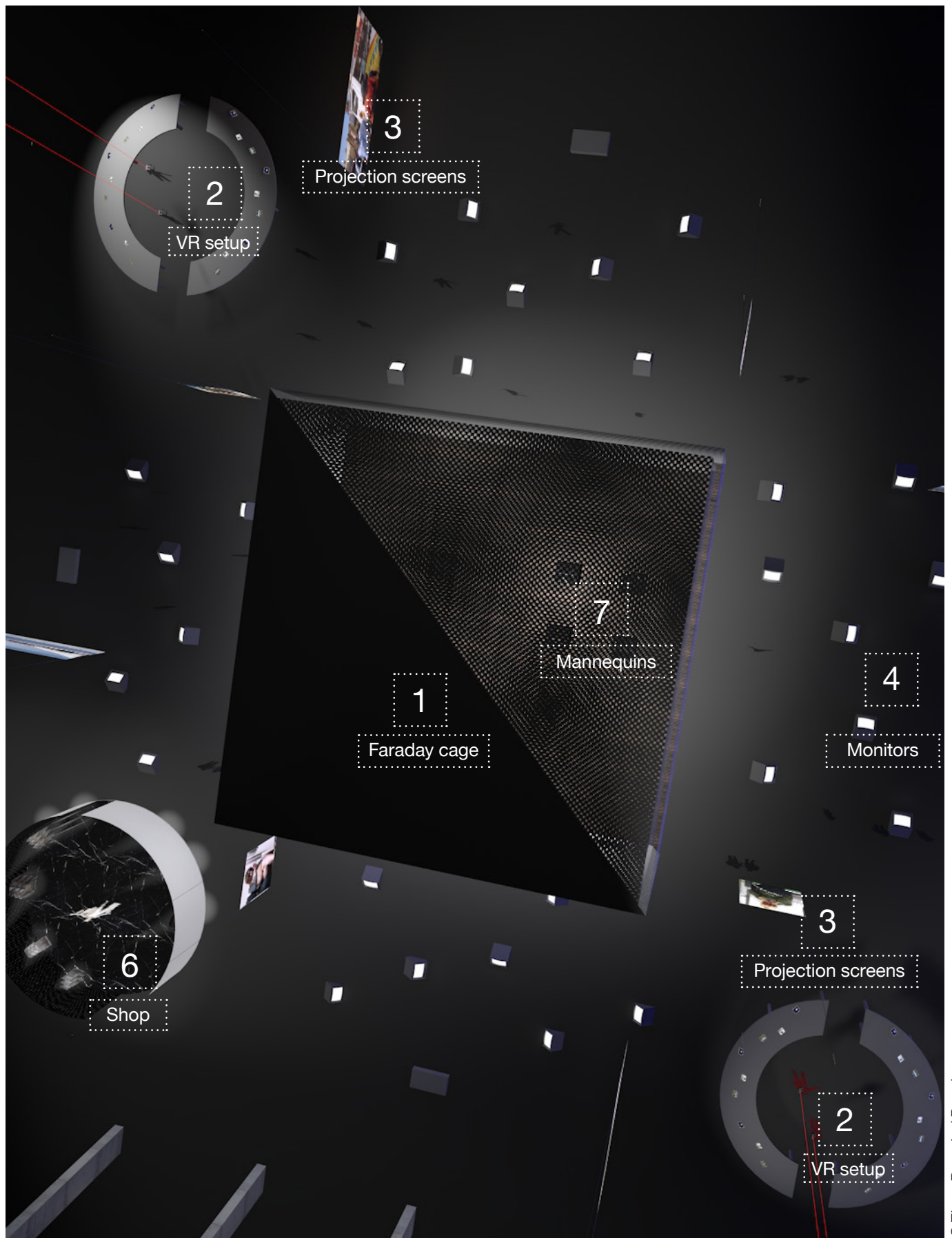
Besides facilitating the physical journey to disconnected places through a route planner, the *White Spots* app offers a collection of narrative fragments from the offline world. In VR, photographs, audio and film scenes, the authors direct attention from hot spots to white spots. They look beyond the edges of the internet, to places not (yet) connected to the digital map, through images, description and discussion. Where is this border between the online and the offline world on our planet, and where does that border lie in ourselves?

Users can add their own white spots and observations to the app.

The app has the following features:

- a global map of the online world (based on telecom data)
- a route planner to guide the user to the nearest white spot
- a collection of stories from the offline world (related through virtual reality, film scenes, interviews, photographs, sounds)
- the option to participate by adding the user's own stories (photographs, video, text, audio) to the interactive map

App design and data visualisation by Richard Vijgen. It was released in The Netherlands on 3 May 2016, and will be released worldwide in the run-up to the release of the film, opening of the exhibition and publication of the book.



© Tiago Rosado / Paradox

A floor plan of the exhibition shows all its components. The numbers refer to the text on pages 19 and 21.

b. Exhibition

In its current form, the exhibition consciously distinguishes between two separate 'worlds': the offline world inside the cage, and the online, always-connected world outside the cage. Further details about each component, accompanied by illustrations, can be found on the following pages.

Seven-minute project trailer including 3D visualisation: <https://vimeo.com/164308787>

Components

1. Faraday cage / white cube

Structurally, the space is a Faraday cage, radiation-free inside. The exterior of the cage can assume different appearances. One might show the structure, texture and fabric of the layers of mesh-like material typically used to construct a Faraday cage. It thereby becomes quite literally a cage, a sensory object in itself. An alternative is to use the cage's outer walls for the projection of Richard Vijgen's mobile phone network data images. Projectors positioned close to the floor ensure shadows are cast by those walking by, so that they become an integral part of the data landscape. A mix of the options is also conceivable, with each occupying two sides of the cube.

The interior of the cage serves as a classic white cube. Exhibited on its walls are framed, large-format prints of photographs that form part of Jacqueline Hassink's Unwired Landscapes project. These include photographs taken outdoors, in places where there is no internet access (yet) as well as indoors, in internet-free hotel rooms and other spaces that are intentionally disconnected.

2. VR experience setup / tablet table (2-3)

This space can feature a number of VR areas, consisting of, for example, two semi-circular tables per set-up. Inside the small arena created, two people can put on VR goggles to experience Richard Vijgen's data visualisations in 3D. A number of iPads (or computers), accessible from the tables, stimulate curiosity and enable interaction, relating what happens in the VR world to those who are passing by or waiting to experience VR themselves.

3. Transparent projection screens suspended from the ceiling (2x4)

4 x Portraits (ca. 2.25 x 3m): a slide show of iPhone photographs taken by Jacqueline Hassink of people on the subway in various cities absorbed by their phones. The pictures demonstrate the constant need for connection. These screens are positioned relatively close to the data projections and/or the cage as they are part of the state of connectedness. It remains to be seen whether these screens show shots taken in different cities around the world (Beijing, Tokyo, New York, Paris) simultaneously, or one after the other (all four projections showing one city).

4 x Landscapes (ca. 5.34 x 3m): atmospheric shots from Bregtje van der Haak's documentary film. As with the smartphone shots, it remains to be seen whether the four (or potentially more) large-format screens will show individual scenes or whether the projection space will be programmed as a spatial montage (with visitors editing the sequence by moving across the space).



Visualisations displaying a potential set-up for the exhibition



The inside of the Faraday cage: exhibition of Jacqueline Hassink's *Unwired Landscapes*.



Detail of the projection screens suspended from the ceiling (component 3).

© Tiago Rosado / Paradox

4. Television monitors positioned on the floor (25-35)

Approximately 25-35 short interviews from Bregtje van der Haak's Tegenlicht documentary will be displayed on small television screens scattered around the exhibition floor. The screens are tilted to aid visibility from different viewpoints. There is no fixed order, visitors determine their own route. The interviews featured on the monitors will feature the voices of a wide array of people from all walks of life, including the philosopher Achille Mbembe, MIT Sociology Professor Sherry Turkle, Faraday Café initiator Julien F. Thomas, Kenyan blogger Chris Baraka, Icelandic artist Björn Roth and the mayor of Aguas Cándidas, Spain.

5. Projection of data visualisation

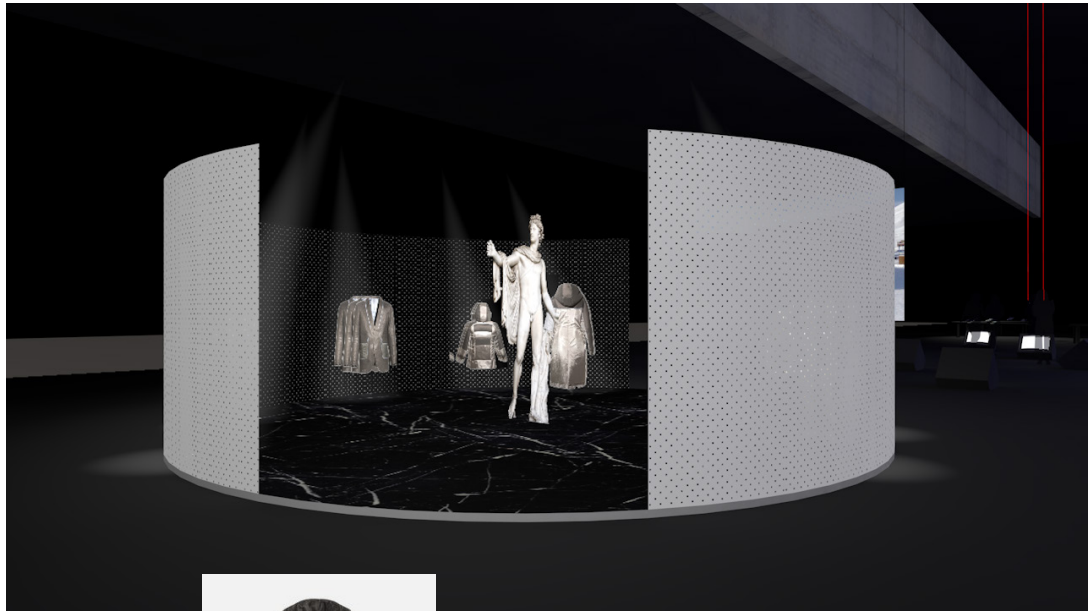
The space used for this part of the exhibition sketch features a long window. For high-quality projection it needs to be covered with a strong transparent filter, to reduce the light. But it might also be used as a screen for Richard Vijgen's visualisations. Projecting the data visualisations onto a partially transparent surface will make the 'real world' outside visible, allowing the added (normally invisible) layer of electromagnetic waves to be related to their respective distant cell phone towers. At night, the window will provide an intriguing panorama for visitors. Alternatively (or additionally), the projection could be made onto 1-2 sides of the Faraday cage.

6. Electromagnetic wave gadget and clothing merchandise shop

Top fashion and high-tech clothing designers like Kunihiro Morinaga have recently been working on creating garments that protect their wearers from electromagnetic waves. The clothes are fashion statements as well as being medical aids for those who are hypersensitive to the waves. But the history of wearable technology doing exactly the opposite – enhancing reception, charging battery-dependent devices – goes back a bit further. Gloves, with wiring woven into the fabric, which can interact with touch screens in winter have already become commonplace. The shop demonstrates how truly mainstream these garments have become or might become in the near future. It will sell goods in two categories: on the one hand, it will sell tech-enhancing products such as the touch-screen glove, while on the other, it sells items that enable the wearer to block the waves.

7. Mannequins showing (the history of) wearable technology

The clothing described above might be displayed in a more eye-catching manner, for example if the clothing items were draped satirically over white, classical sculptures.



© Tiago Rosado / Paradox

The electromagnetic wave gadget shop.

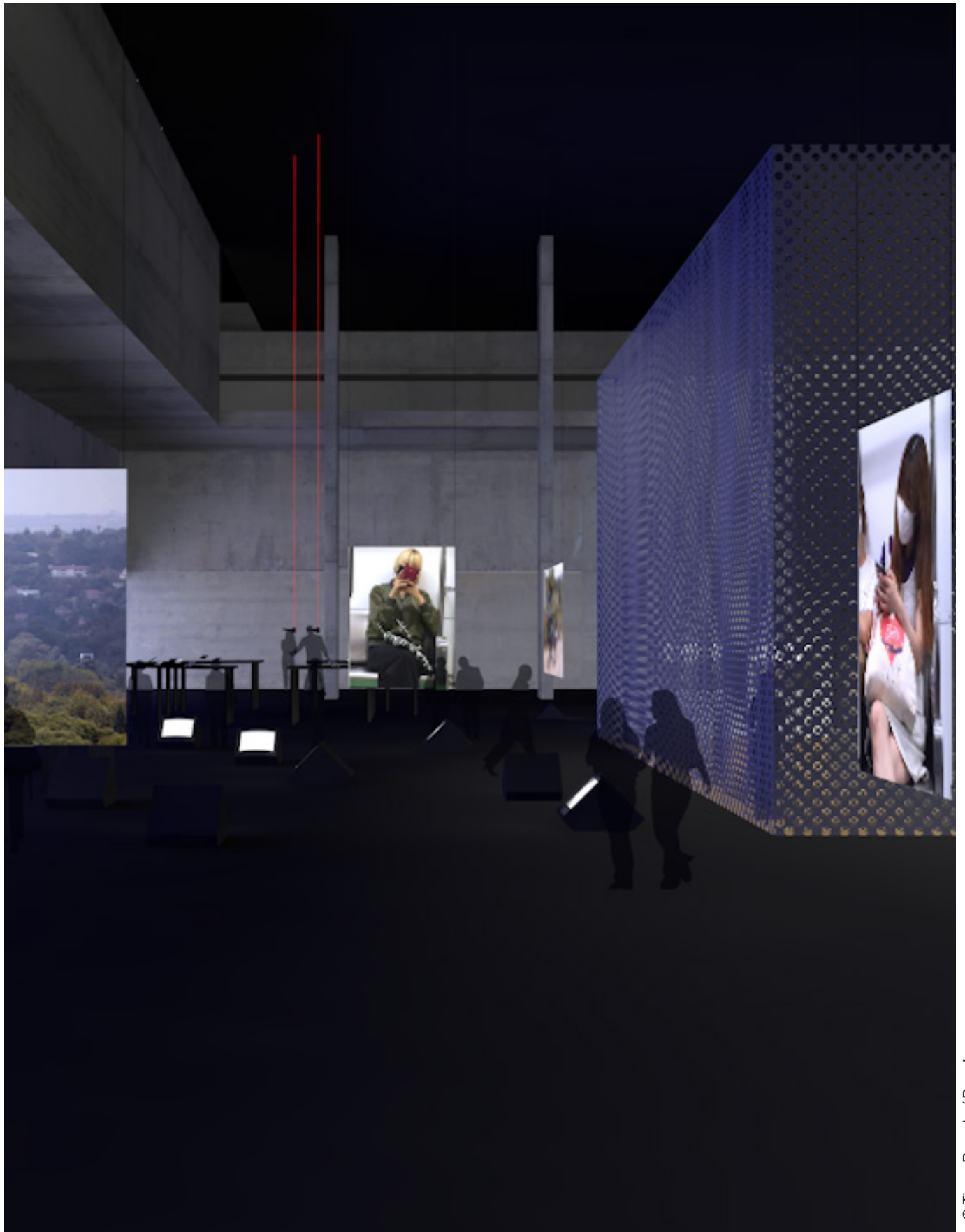


Left to right: touch-screen gloves, FOCUS life gear coat by Kunihiro Morinaga, gloves, nullifier bottle.



© Tiago Rosado / Paradox

Display of electromagnetic wave-resistant clothing on mannequins inside the Faraday cage



© Tiago Rosado / Paradox

Birds eye view of the Faraday cage, in this case with projection on two sides, and visible mesh on the other two.



Achille Mbembe | Philosopher

Rosebank, South Africa. <https://goo.gl/zRJDdR>



Nairobi, Kenya. <https://goo.gl/be0Ln3>



Johannesburg, South Africa. <https://goo.gl/QsmGP5>



Knegsel, The Netherlands. <https://goo.gl/AVdaik>

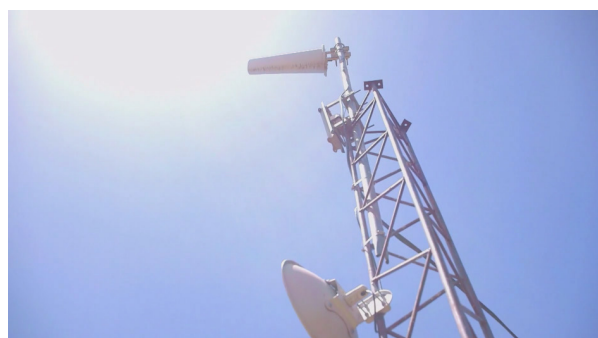


Sherry Turkle
psychologist MIT

MIT, Cambridge, USA. <http://goo.gl/Q6rXUy>



Djendaho, Burkina Faso. <https://goo.gl/vzllia>



Nanyuki, Kenya. <https://goo.gl/hikiOZ>



Ploska, Ukraine. <https://goo.gl/epUvI4>

These are eight out of twenty-six short stories taken from Bregtje van der Haak's documentaries *Access to Africa* and *Offline is the New Luxury*. All of them are featured in the *White Spots* app. The videos will be screening in the exhibition on the monitors that are placed on the floor.

c. Television broadcasts

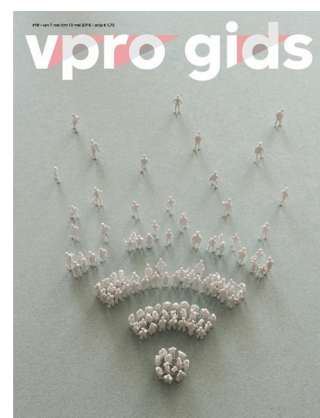
Bregtje van der Haak has directed two television documentaries for VPRO Tegenlicht (Backlight): *Access to Africa* and *Offline is the New Luxury*. They were broadcast respectively in June 2014 and May 2016. While *Access to Africa* tells the story of the unstoppable expansion of our desire to be connected, *Offline is the New Luxury* focuses exclusively on being offline and the way in which this can be achieved in modern life.

d. Film

In addition to the aforementioned televised documentaries, in cooperation with Barbara Truyen in VPRO's documentary department, Van der Haak will direct a feature-length documentary film on radiation illness. The working title is *Digital Refugees*. The film will be produced by Baldr Film and will feature the visualisations made by Richard Vijgen for the *White Spots* app. The release of this documentary, expected in the autumn of 2017, will bring renewed attention to both the app and the exhibition.

e. Book

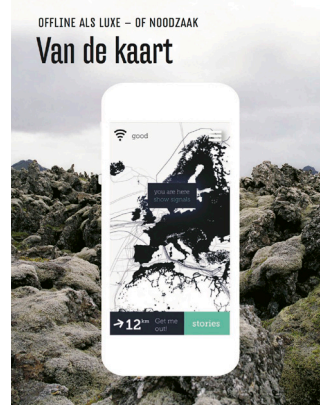
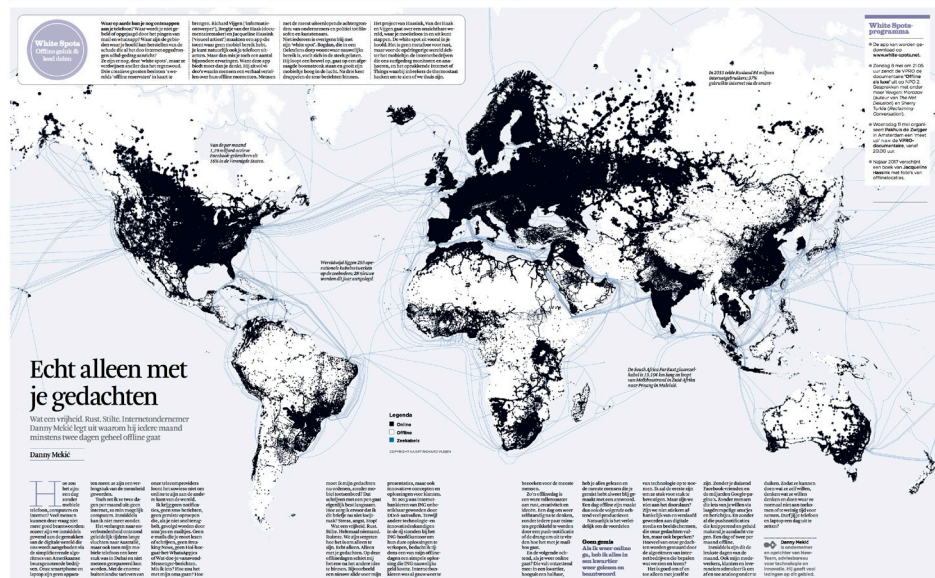
In addition to the exhibition and the feature-length documentary, the autumn of 2017 promises the release of the *White Spots* book. It will focus on Jacqueline Hassink's *Unwired Landscapes*. Irma Boom has signed on as the book's designer, and publisher Hatje Cantz Verlag has expressed an interest in publication. Other partners include the Mondriaan Fund, Benrubi Gallery / New York, Wouter van Leeuwen Galerie / Amsterdam and Kaune Contemporary / Köln. The book offers yet another way of attracting public attention for both the app and the exhibition, with the latter combining all of the *White Spots* elements in one dynamic presentation.



Morgen:

nl.nieuwsradio
7 maart 2018

Wereldstillekaart Waar ben je buiten bereikt?



7. Media coverage

Various media have already covered the *White Spots* story. Most of the coverage has concentrated on Bregtje van der Haak's VPRO Backlight broadcasts and the *White Spots* app release, but the whole project has received widespread attention. This page includes a small selection of published articles – there are too many to include them all.

On 1 May, Bregtje van der Haak and Jacqueline Hassink were invited to talk about their contributions to the *White Spots* project on the Dutch radio show *Met Het Oog Op Morgen*. Two days later, in Pakhuis de Zwijger, the *White Spots* app was launched. On 11 May, Pakhuis de Zwijger hosted another Tegenlicht Meet Up, this time focused on *Offline is the New Luxury* as well as the entire *White Spots* project.

Television shows RTL Boulevard and De Wereld Draait Door introduced the app, including some of its graphics, in their broadcasts, on 5 May and 13 May respectively.

Printed publications included a spread in the Financieel Dagblad, columns in NRC Handelsblad and de Volkskrant, an interview with Richard Vijgen in Het Parool, and extensive articles in the VPRO gids (cover shown on the left) and the VARA gids. AD also included the *White Spots* app in its list of 'Apps to download this week'.

Quotes

"Go, with the app at your disposal, while you still can. Or leave all your devices at home - it is theoretically possible."

- Robert Gooijer, VARA gids, 03-05-2016

"Two years ago I was on an Indonesian island that only had pitch black sand roads. All fisherman were hunched over their smartphones. The advantage was that they couldn't see my 13th century Nokia. If only the *White Spots*-app had existed back then!"

- Olaf Tempelman, Volkskrant, 12-05-2016

