

(espace & société) numérique ?

Introduction à l'épistémologie du numérique



" To make a piece of music instantly audible at any point on the earth, regardless of where it is performed.

To reproduce a piece of music at will, anywhere on the globe and at any time.

These problems have been solved. The solutions are being further refined every day ".

« Faire entendre en tout point du globe, dans l'instant même, une oeuvre musicale exécutée n'importe où.

En tout point du Globe, et à tout moment, restituer à volonté une oeuvre musicale.

Ces problèmes sont résolus. Les solutions se font chaque jour plus parfaites ».

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En tout point du Globe, et à tout moment, restituer à volonté une oeuvre musicale.

Ces problèmes sont résolus. Les solutions se font chaque jour plus parfaites ».

Paul VALÉRY, *La conquête de l'ubiquité*, 1928.

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Introduction



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Introduction

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OVERVIEW CHARTS GENRES & MOODS NEW RELEASES DISCOVER

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Nouveautés du vendredi

Sea, sex & sound

Sunny

Hits du moment

Back Door Man

RELATED MUSIC

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Boris Accueil

Le Monde.fr 30 min · en

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WIKIPÉDIA The Free Encyclopedia

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From today's featured article

Chelsea Bridge spans the River Thames in west London, connecting Chelsea on the north bank to Battersea. The first bridge on the site, Victoria Bridge, was proposed in the 1840s as part of the Battersea Park development of marshlands on the south bank.

In the news

- In association football, the **Women's World Cup** concludes with the United States defeating Japan in the final, and the **Copa América** concludes with Chile (captain **Claudio Bravo** pictured) defeating Argentina in the final.
- Nicholas Winton**, dubbed the "British Schindler" for saving more than 600 children – the majority Jewish – from the Nazis, dies at the age of 106.
- More than 140 people are killed when a Lockheed C-130 Hercules crashes into a residential area of Medan, Indonesia.
- Hisham Barakat**, Egypt's prosecutor general, is assassinated in a car bombing.
- SpaceX CRS-7**, an unmanned resupply mission to the International Space Station, fails when the Falcon 9 launch vehicle disintegrates shortly after liftoff.

On this day...

- July 10: **International Guds Day** (2015); **Silence Day**; Independence Day in the Bahamas (1973)
- 1460 – War of the Roses: King Henry VI of England was captured by Yorkists at the **Battle of Northampton**.
- 1800 – Lord Welleslev, Governor-General of

Boris Gmail Images

Google Switzerland

Google Search I'm Feeling Lucky

Google.ch offered in: Deutsch Français Italiano Rumantsch

Techniques spatiales

Écriture

Presse

Telegraphe

Radio

Television

Espace

Ville

Internet

Flux vs Relations

(espace & société) numérique ?

électricité
téléphone
télévision
radio

Internet / internet

Web / web

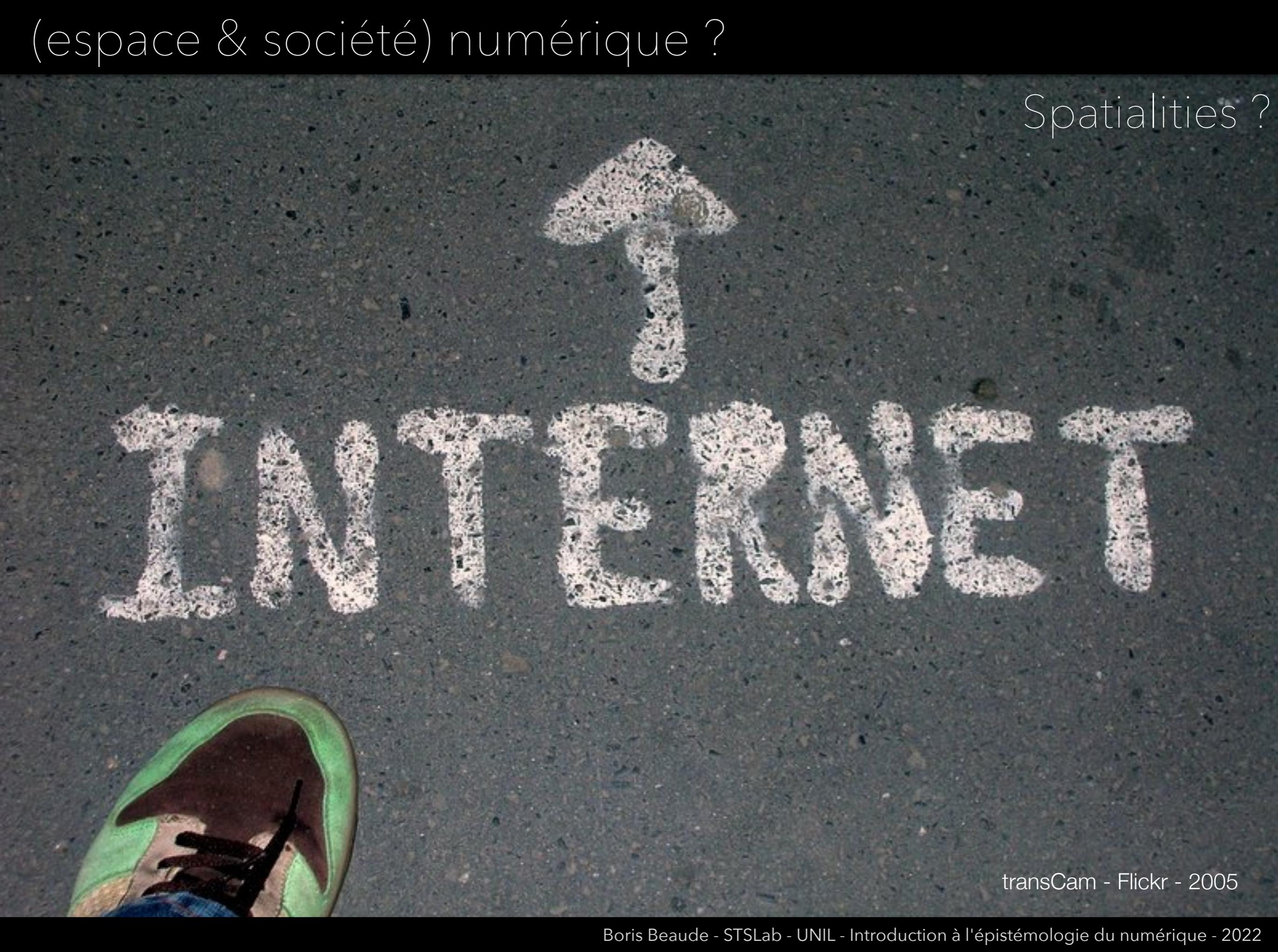
Conceptions de l'espace

(espace & société) numérique ?

De l'abolition de l'espace aux spatialités d'Internet

(espace & société) numérique ?

Spatialities ?



INTERNET

transCam - Flickr - 2005

(espace & société) numérique ?

Spatialities ?



Amazon
Warehouse,
Rugeley, England, 2013

(espace & société) numérique ?

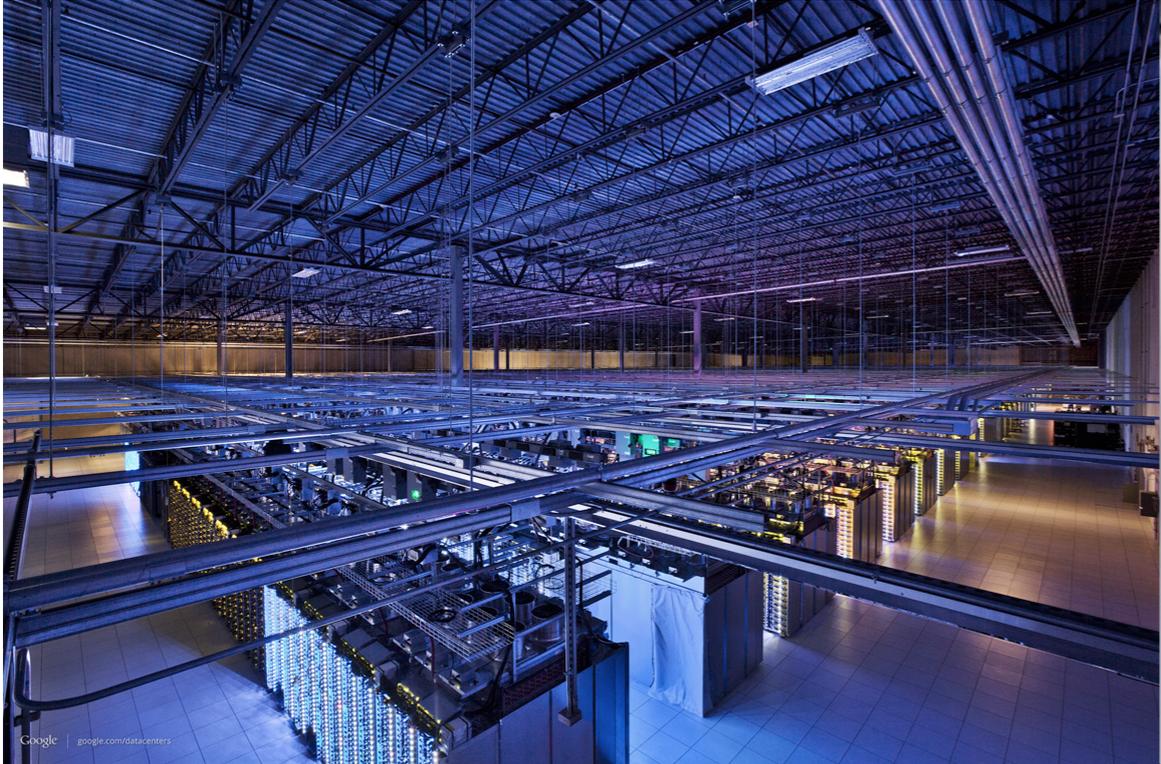
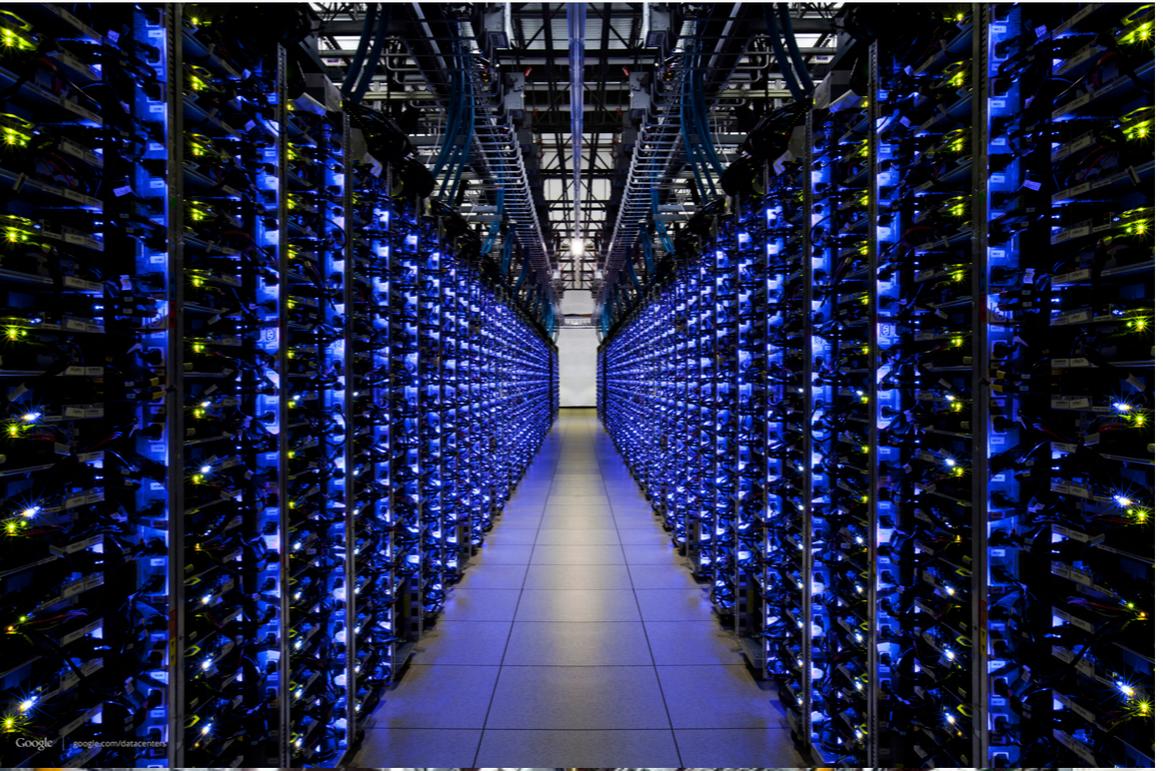
Spatialities ?



Amazon
Web Services data center,
United States, Los Angeles, 2014

(espace & société) numérique ?

Spatialities ?



Google Data Centers - 2012

(espace & société) numérique ?

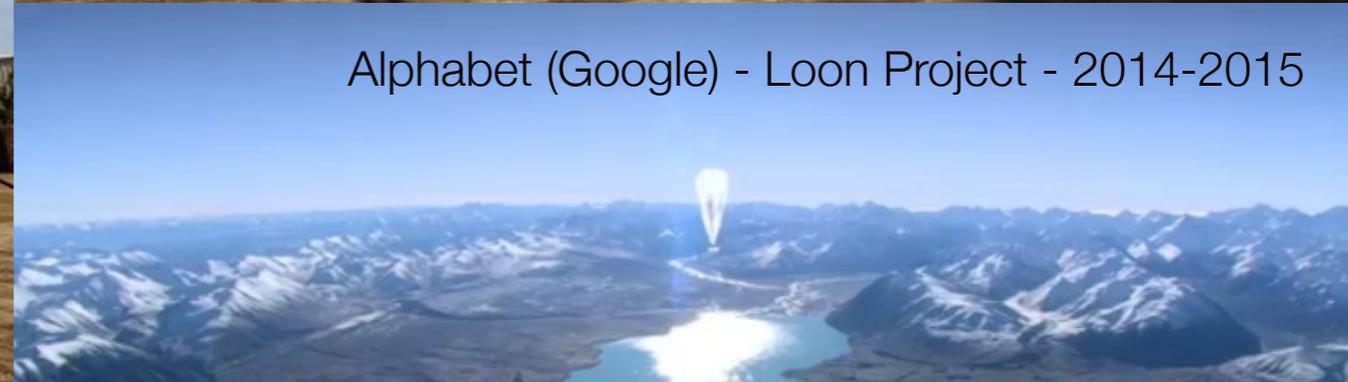


BALLOON-POWERED INTERNET FOR EVERYONE

Spatialities ?



Alphabet (Google) - Loon Project - 2014-2015



(espace & société) numérique ?

Spatialities ?



Dave Greer,
Philadelphia Internet Exchange,
401 N. Broad St. Philadelphia PA, 2015

(espace & société) numérique ?

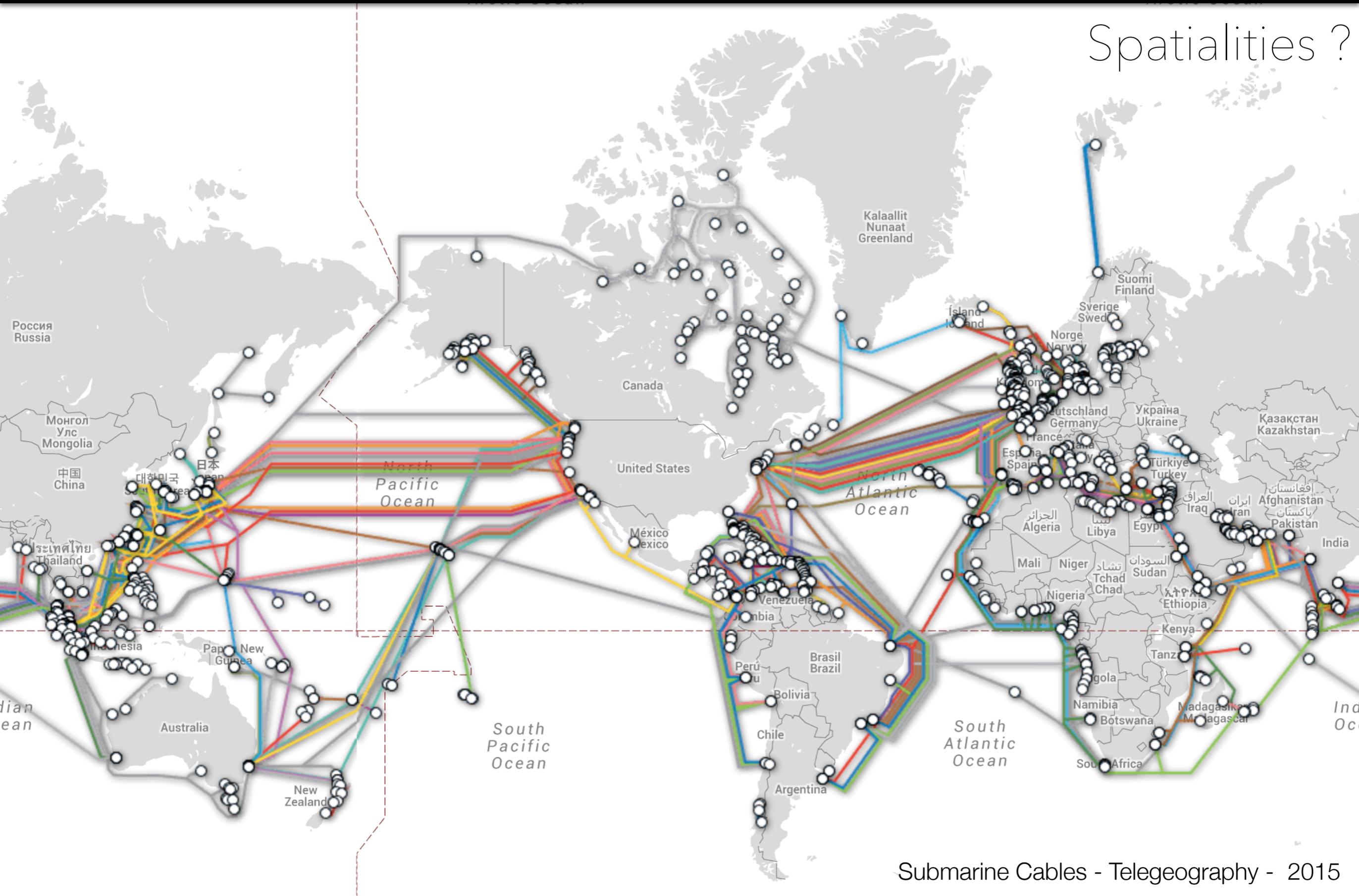
Spatialities ?



Utah Data Center - NSA - 2013

(espace & société) numérique ?

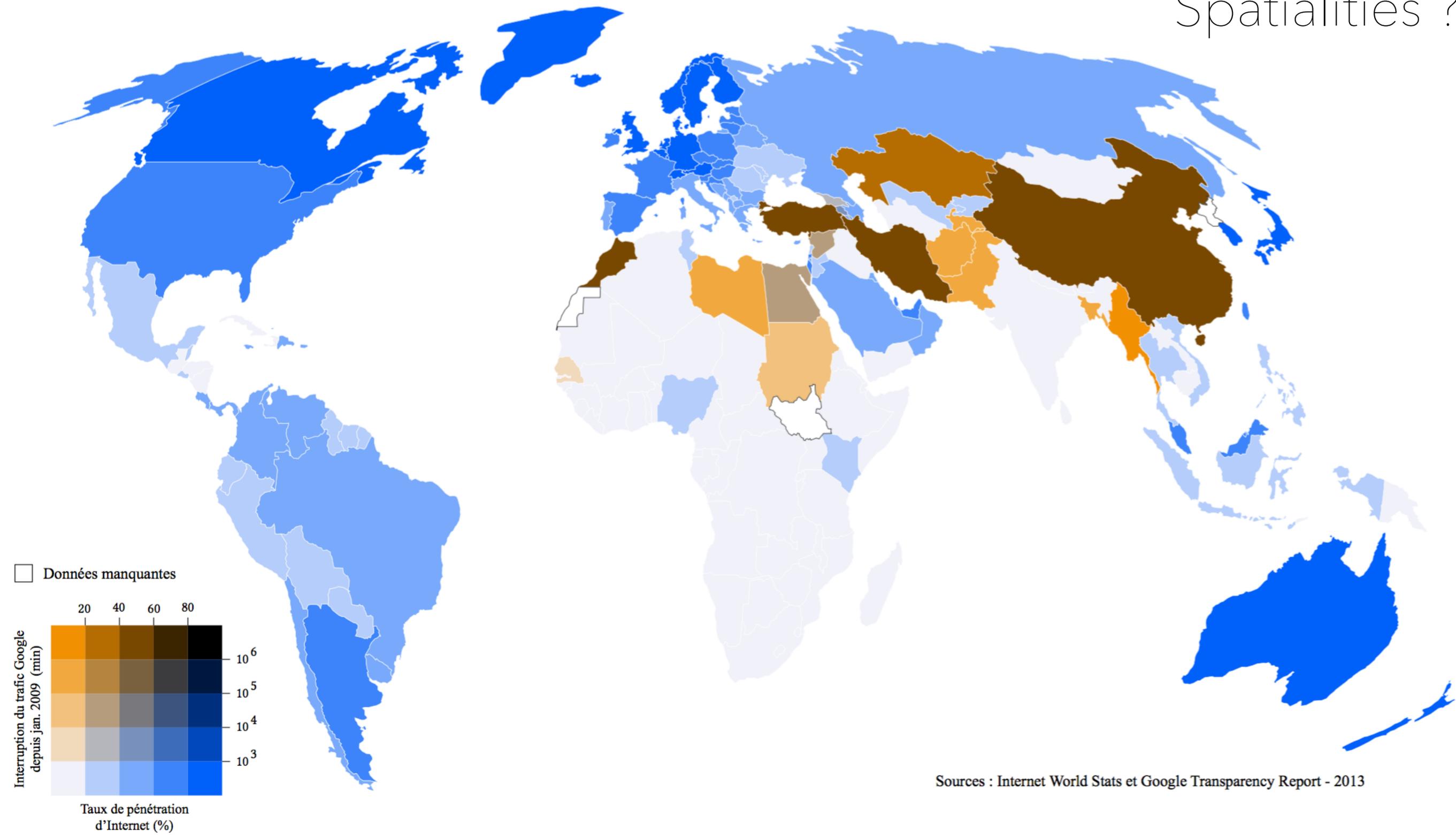
Spatialities ?



Submarine Cables - Telegeography - 2015

(espace & société) numérique ?

Spatialities ?

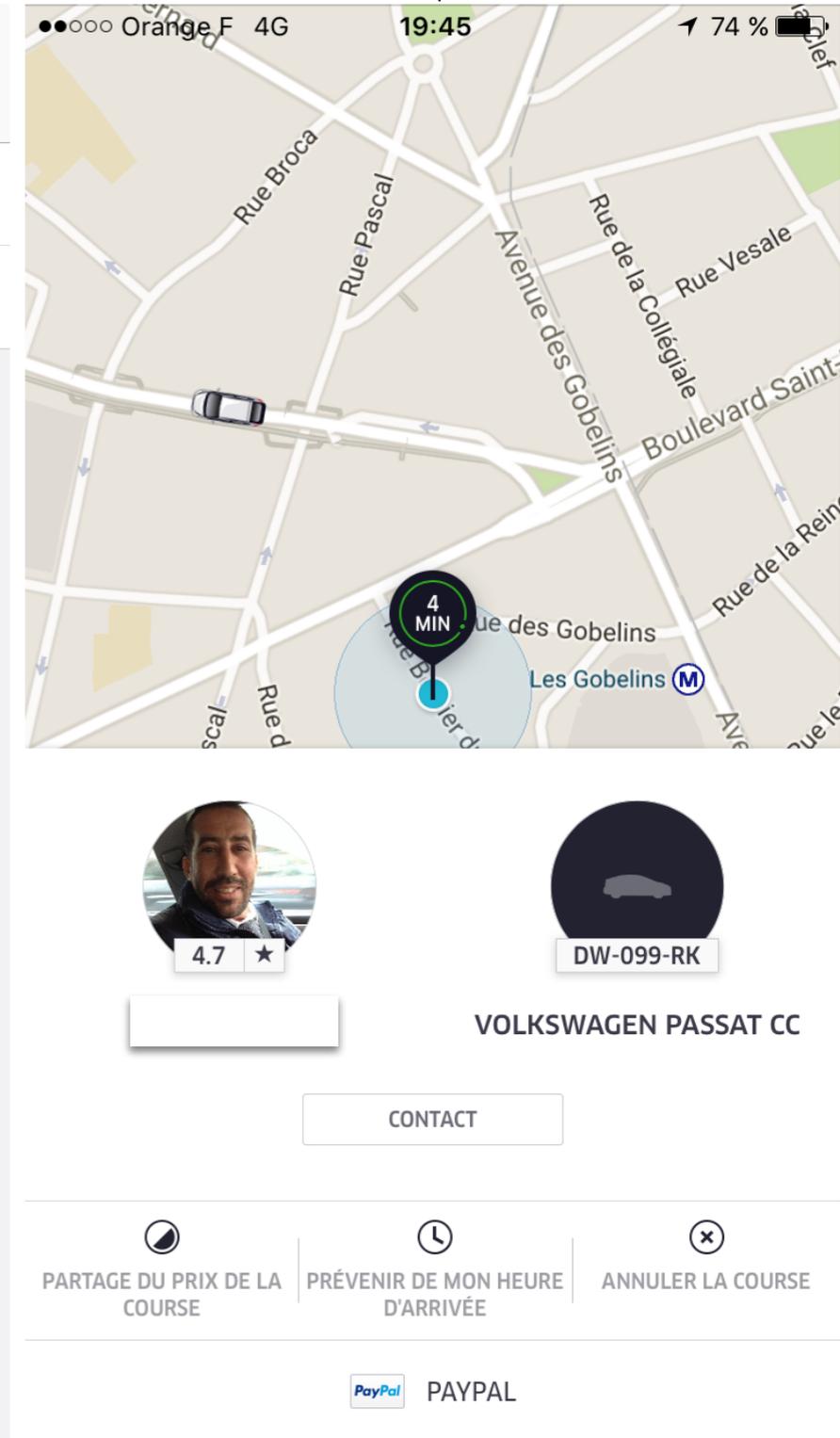
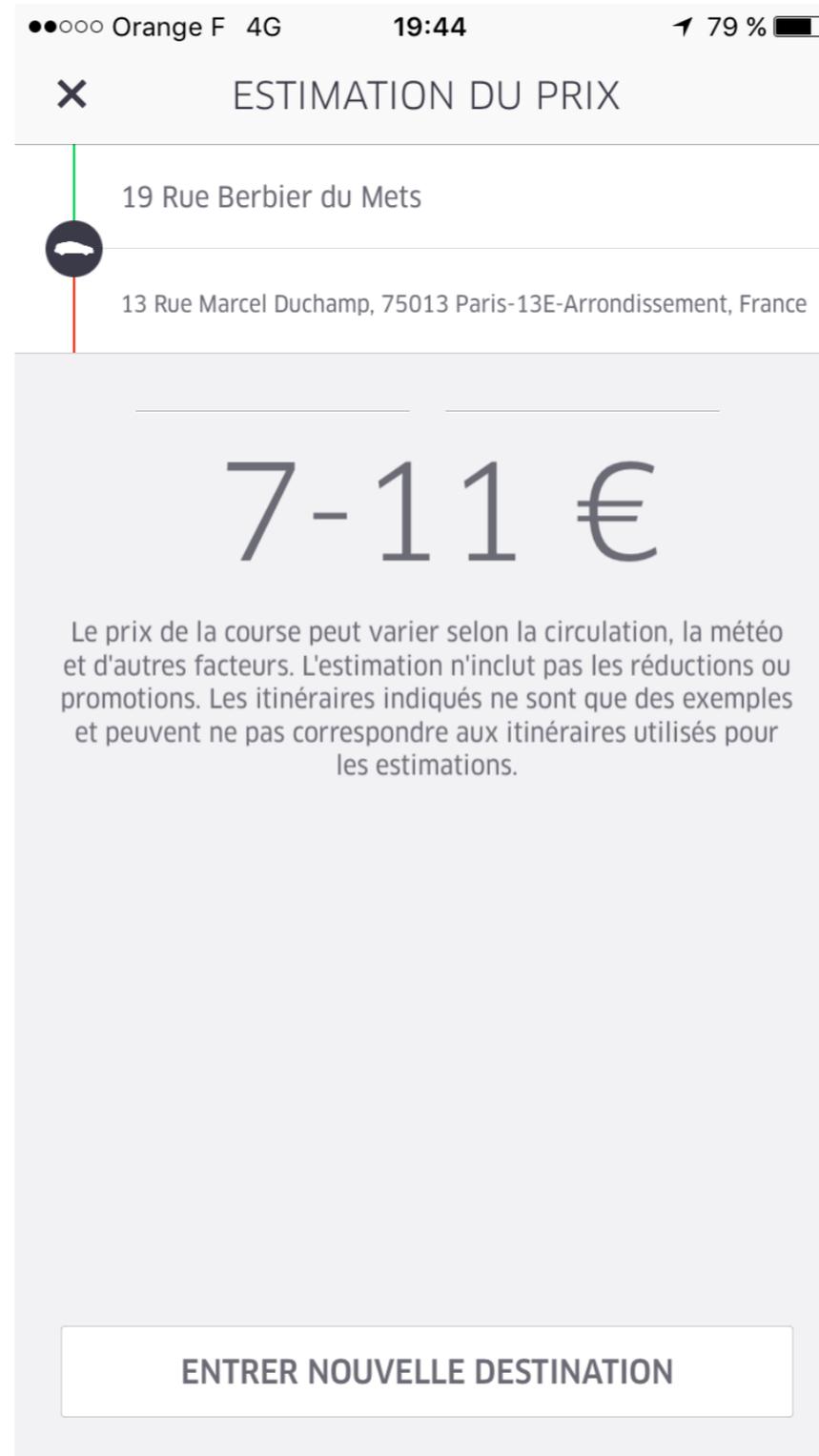
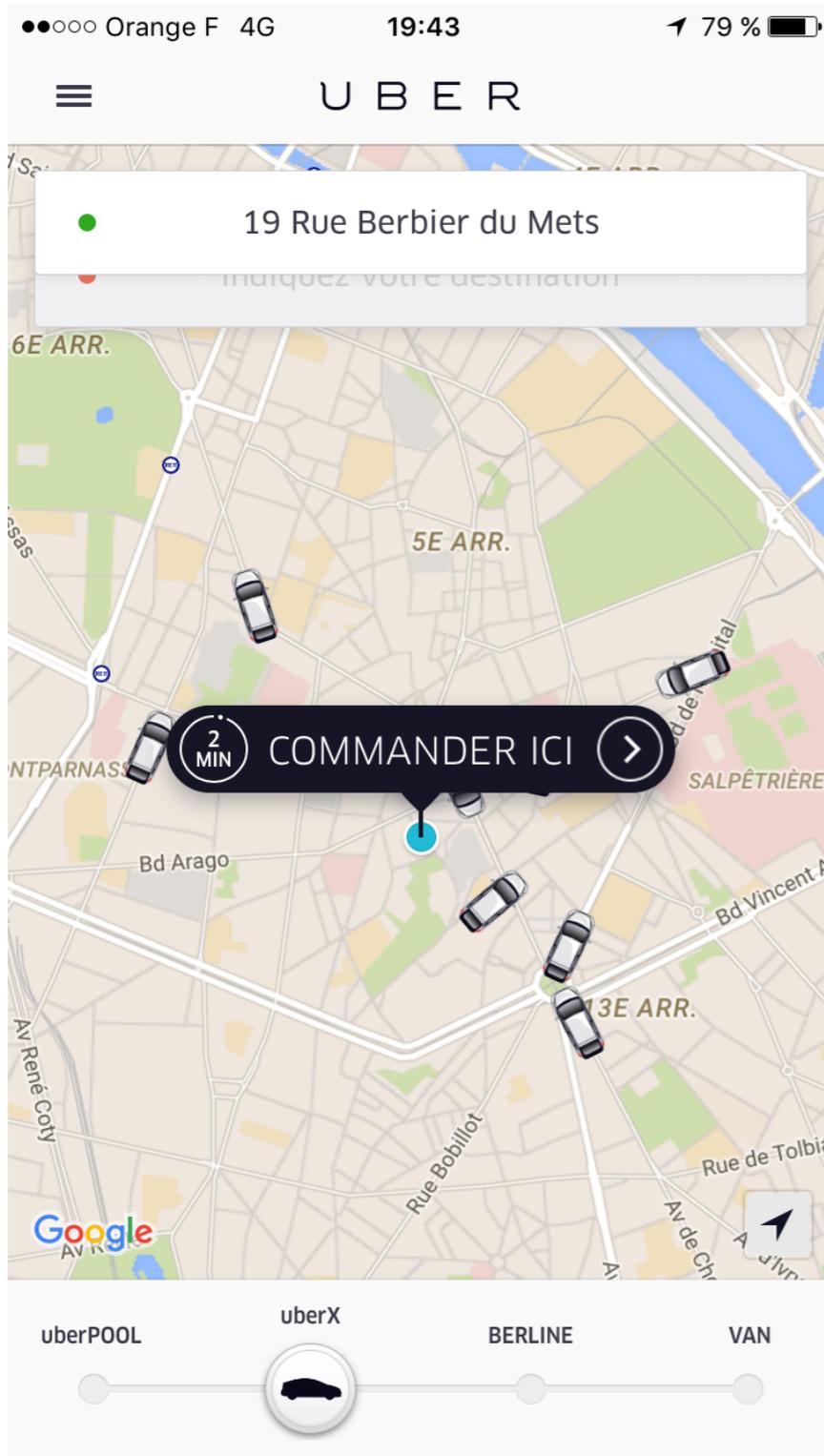


Sources : Internet World Stats et Google Transparency Report - 2013

Boris Beauce, Ogier Maitre, L'ubiquité fracturée, 2014

(espace & société) numérique ?

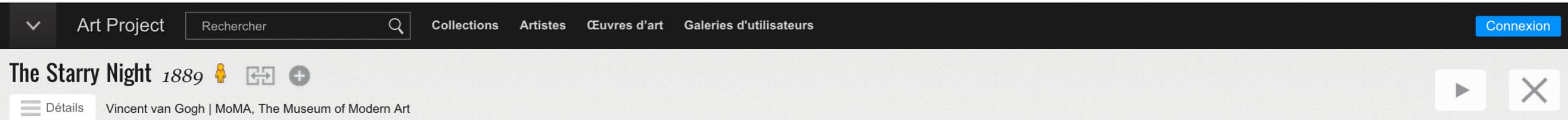
Spatialities ?



Uber, 2015

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Spatialities ?



Google Art Project
Moma - 2015

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Spatialities ?



(espace & société) numérique ?

Spatialities ?



(espace & société) numérique ?

Spatialities ?

The image is a collage of various digital media and utility interfaces. At the top left, there's a window for 'Super 8 (2011) Chapter 5'. Below it, an iTunes library is visible with categories like 'Musique', 'Films', and 'Séries TV'. In the center, a torrent client window shows a list of peers for 'ubuntu-9.10-desktop-i386.iso'. To the right, the Netflix homepage is displayed with the text 'Watch TV shows & movies anytime, anywhere. For one low monthly price.' Below Netflix, there's a Spotify Premium interface with a search bar and a menu. At the bottom, a YouTube video player is shown for 'Thom Yorke - Hearing Damage (excellent quality)', featuring a video player, a list of related videos, and engagement buttons like 'S'abonner' and 'Ajouter à'. The overall composition represents a digital ecosystem of media consumption and distribution.

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SECOND LIFE

©2007 Linden Research, Inc.

GRID STATUS: ONLINE

Second Life Time: 1:21 am PDT
Total Residents: 5,203,878
Logged In Last 60 Days: 1,626,207
Online Now: 18,870

Want to Learn More About Second Life?

1. [Tech Support at Your Fingertips](#)
2. [Secrets of Scripting](#)
3. [Tools, Tutorials and Templates](#)
4. [Organize Your Out-of-control Inventory](#)
5. [Attend a Free Class going on now!](#)

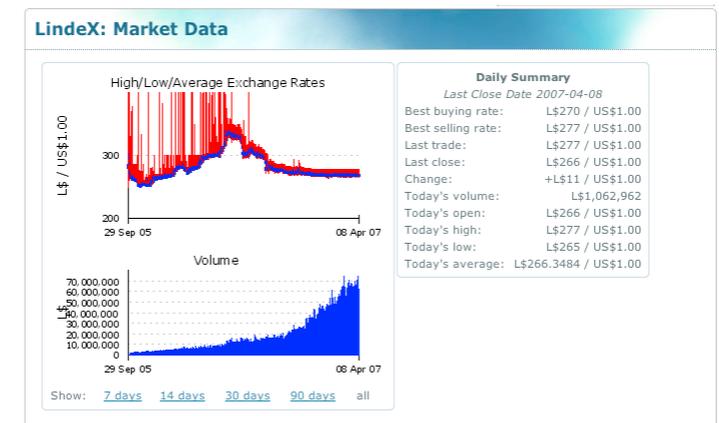
News & announcements from blog.secondlife.com:

[Newsletter Posted!](#) Mon 2 Apr 19:03 PM PDT
[Preview of Second Life 1.14.1\(1\) now up on the Beta Test Grid](#) Mon 2 Apr 17:34 PM PDT
[Next Week's Scheduled Downtime](#) Fri 30 Mar 16:57 PM PDT
[Second Life 1.14.0.1 Optional Viewer Update Available](#) Fri 30 Mar 16:02 PM PDT

First Name: Last Name: Password:

 Remember password

1.14.0 (1)



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Lively

(espace & société) numérique ?



Home

(espace & société) numérique ?

1.5 beta
CYWORLD TALK - CLUBS - SHOP - BROWSE

sign up | help | log in

Find People Search

Profile Photos Videos Miniroom Blog Guestbook **N** Play My Music

LOVE is complex in it's simplicity

Miniroom View Friends [120] See All

Today I'm: hi, jae!

Views: 55 Total: 8083 Offline

Recent Visitors

- Ellen Today, 11:08 pm
- Jujube52 Today, 9:04 pm
- Briannewyorker Today, 7:58 pm

Information

About OHMISO

OHMISO's Story:

call me nikki ;)

I'm past my teens, 21 to be exact.
I'm definitely not Hispanic, sorry to burst your bubble.
my sarcasm stings like a beech, so don't even try.
i may be tiny, but i eat like a fatas\$♥ so, don't be deceived.
yep! fm basically redefining the masses ;] holla!

BTW, I DO NOT TAKE RANDOM ADDS, SORRY!
&& most of my pics are set to private

Miniprops (1) Comments (2)

oneoftheboys Chesca palalapanda Jimmie Nikki :D stef's butt

(espace & société) numérique ?



(espace & société) numérique ?

Cyworld
Réseau social

+ Comparer

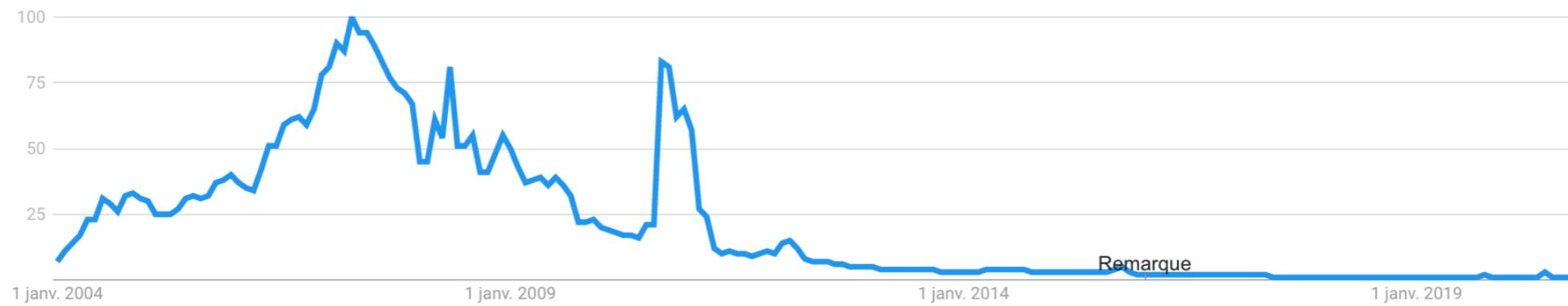
Dans tous les pays ▾

De 2004 à ce jour ▾

Toutes catégories ▾

Recherche sur le Web ▾

Évolution de l'intérêt pour cette recherche ?



Intérêt par région ?

Région ▾



1	Corée du Sud	100	<div style="width: 100%;"></div>
2	Chine	1	<div style="width: 1%;"></div>
3	Nouvelle-Zélande	1	<div style="width: 1%;"></div>
4	Singapour	1	<div style="width: 1%;"></div>
5	Vietnam	1	<div style="width: 1%;"></div>

Inclure les régions à faible volume de recherche

(espace & société) numérique ?

1.5 beta
CYWORLD
TALK · CLUBS · SHOP · BROWSE
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Visit Random Profile

Join Now

Miniroom
View Friends [120] See All

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BTW, I DO NOT TAKE RANDOM ADDS, SORRY! && most of my pics are set to private need I say more??

CYWORLD
Gibberish
BY Ryan Leslie
ON Ryan Leslie
140,684 plays
Open this track (in a new window)
Ringtone iTunes
imeem

#	title	artist
1.	Gibberish	Ryan Leslie
2.	Special	MusiQ Soulchild
3.	Ngiti	Ronnie Liang
4.	First Love	Utada Hikaru
5.	Insomnia (불면증)	Wheesung (휘성)
6.	Valentine	Ryan Leslie

CYWORLD
Sports: BOXING FTW!
Music: "hiphop is vintage" acoustic, r&b, soul, etc.
Hobbies: EAT, SLEEP, dance, sing, cosmetology, tocar la guitarra, EAT, SLEEP

Personal Info
Screenname: OHMISO
Profile URL: http://us.cyworld.com/OHMISO
Gender: Female
Sign: Scorpio

Contact Info
Country: United States

Guestbook See All

THE CityKids FOUNDATION
To learn more or get involved, check out www.citykids.com

sign up | help | log in
Find People Search

Profile Photos Videos Blog Groups

Amelia's Story
Amelia fait partie de ton réseau étendu !

Amelia's Photos
Amelia's Videos
Amelia's Blog
Amelia's Groups

Amelia's Story
Amelia's Bio
Amelia's Profile URL: http://www.myspace.com/ameliab

Amelia's Personal Info
Screenname: Amelia
Profile URL: http://www.myspace.com/ameliab
Gender: Female
Sign: Scorpio

Amelia's Contact Info
Country: United States

Amelia's Guestbook See All

(espace & société) numérique ?



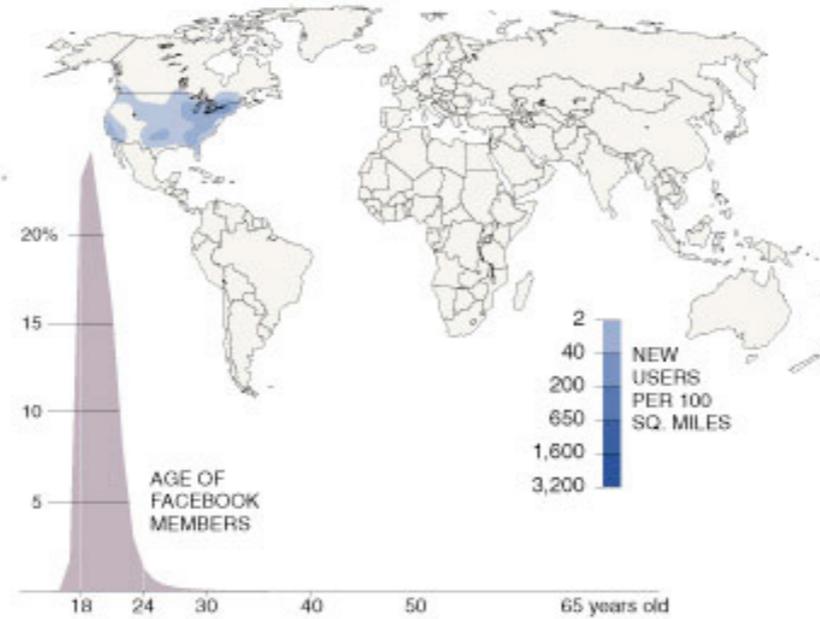
Facebook active users since 2004, Facebook, 2009

(espace & société) numérique ?

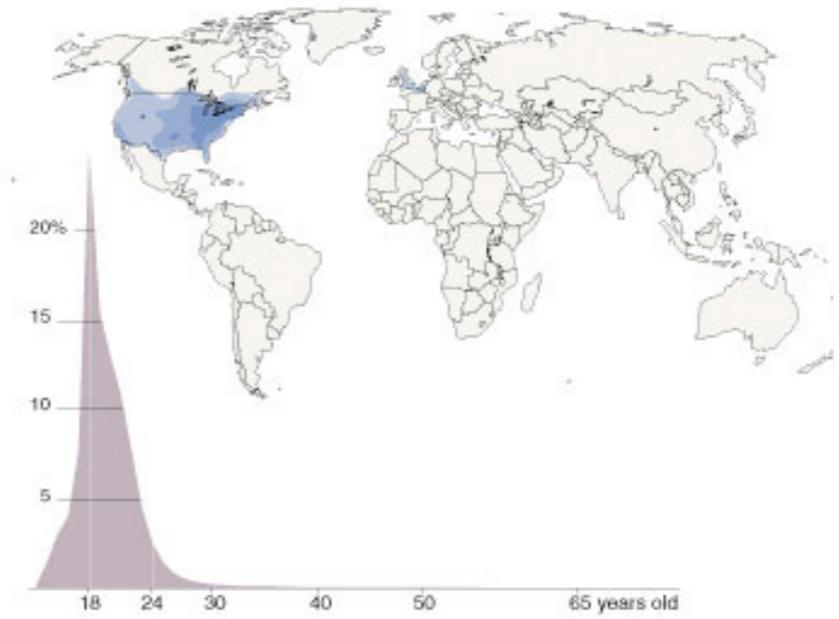
The Road to 200 Million

Facebook began as a private network for colleges and universities, but has grown into an international social networking site with almost 200 million members. Lee Byron, a member of Facebook's data team, created maps and network diagrams that show the site's expansion and use.

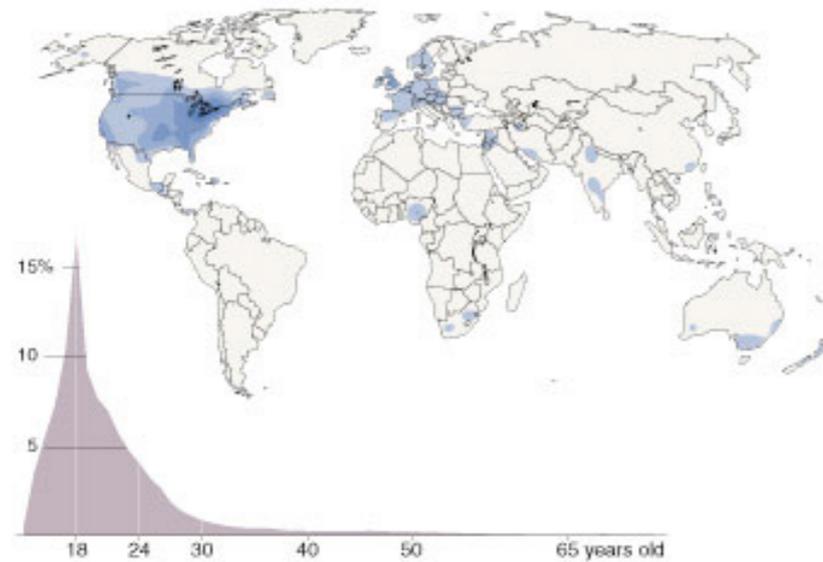
February 2004 to January 2005 Facebook begins at Harvard, and expands to a few universities at a time.



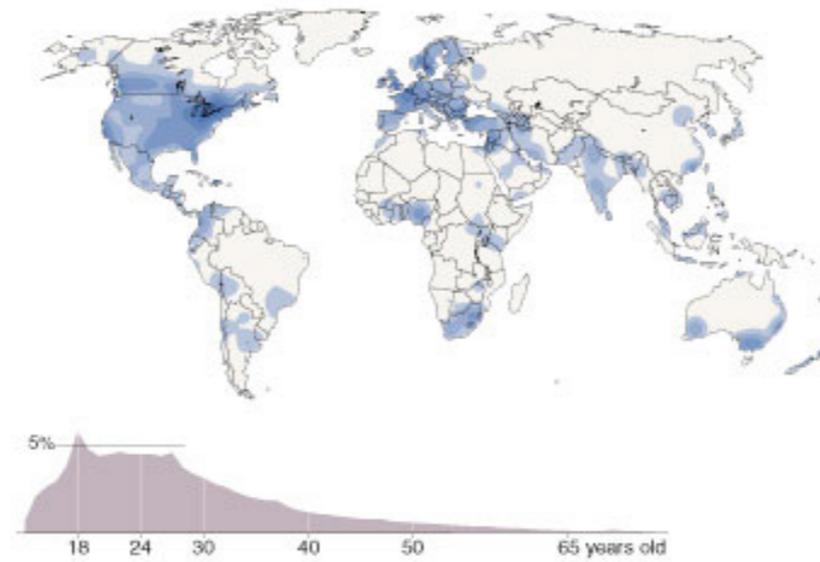
February 2005 to January 2006 Facebook expands to include most American colleges and high schools.



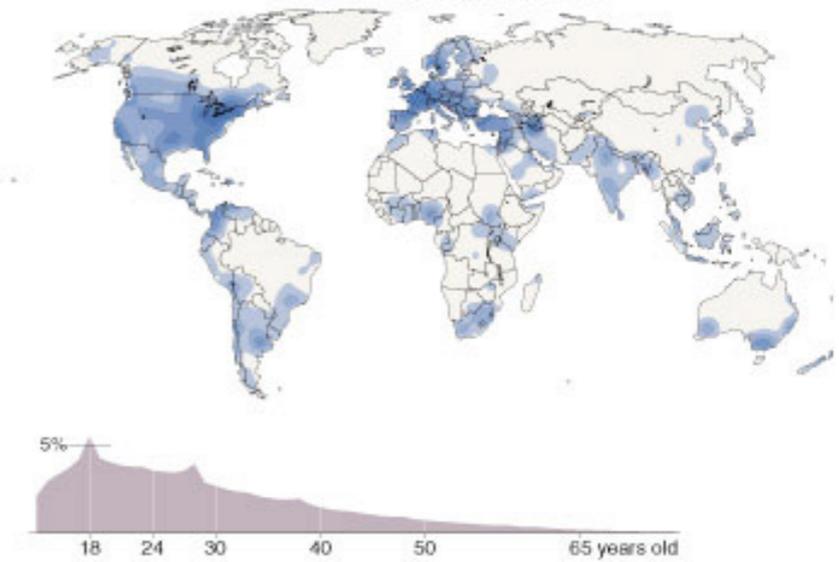
February 2006 to January 2007 Facebook opens registration to allow anyone to join, which brings in older members.



February 2007 to January 2008 Facebook reaches 50 million users, with Canada and Britain growing fastest.



February 2008 to January 2009 Facebook is translated into more than 40 languages. The fastest-growing group of members is people over 35.

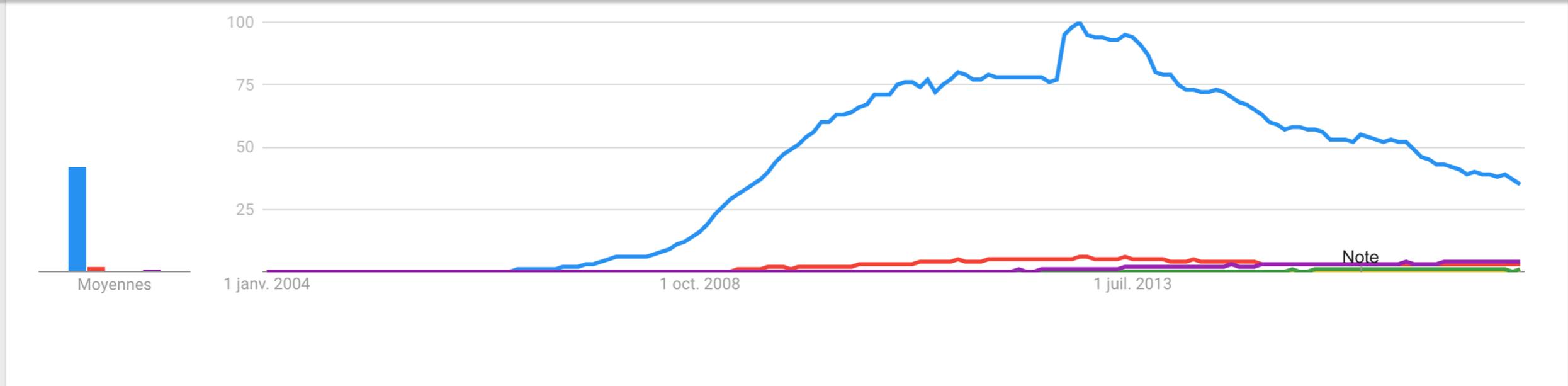


Facebook Growing to 200 Million, Lee Byron, 2008

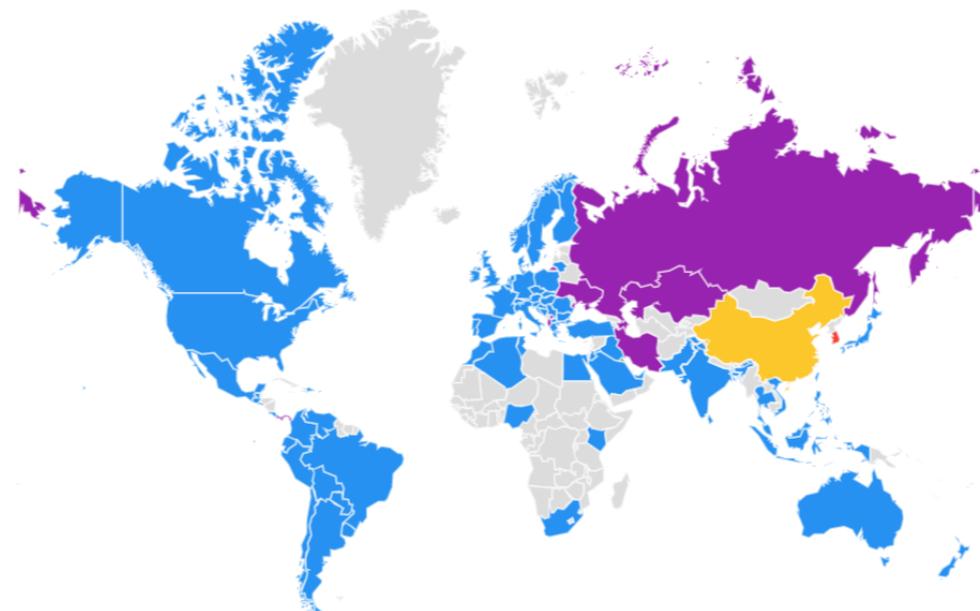
(espace & société) numérique ?

facebook twitter cyworld snapchat instagram

Dans tous les pays, De 2004 à ce jour



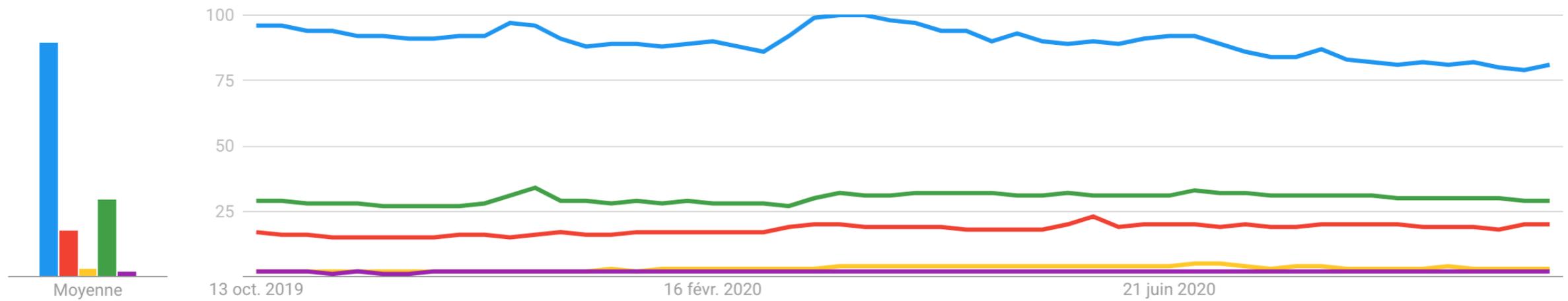
Intérêt par région ?



(espace & société) numérique ?

facebook twitter tik tok instagram snapchat

Dans tous les pays, 12 derniers mois



Comparaison de la répartition par région

Région

facebook twitter tik tok instagram snapchat

Trier : Intérêt pour facebook



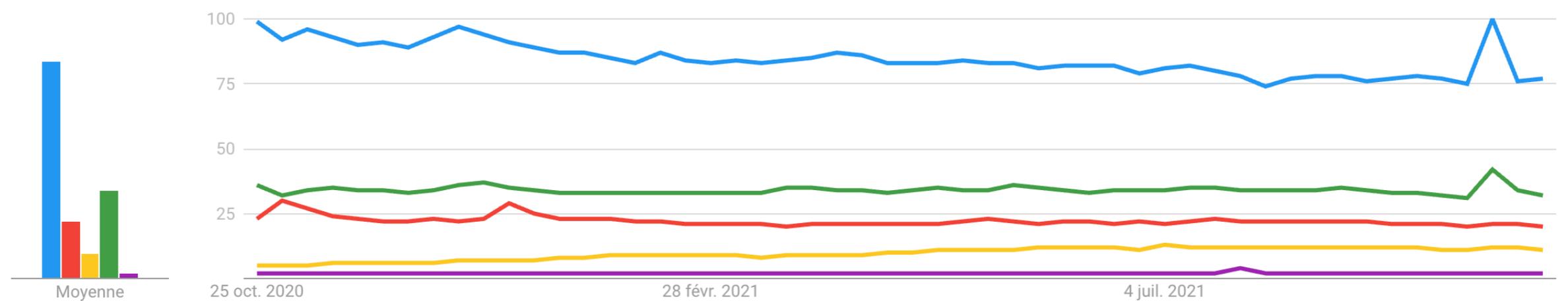
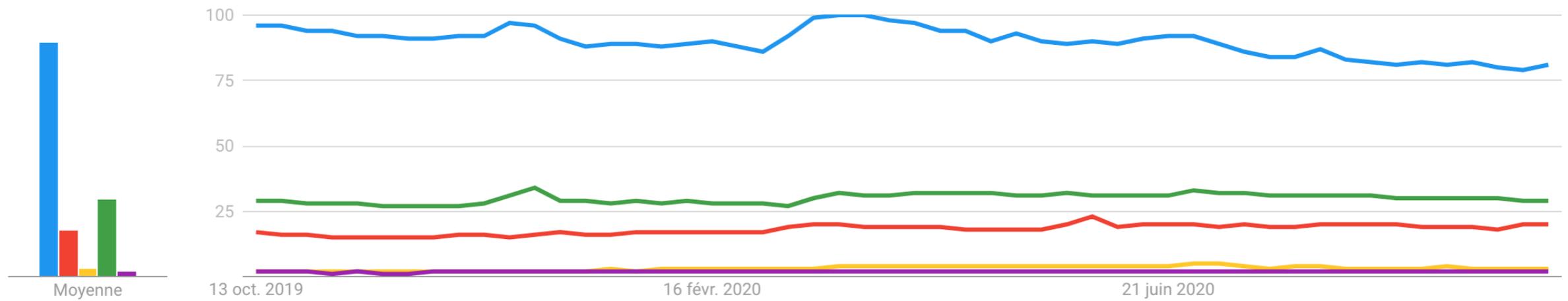
Rang	Pays	facebook	twitter	tik tok	instagram	snapchat
1	Roumanie	High	Low	Low	Low	Low
2	Pérou	High	Low	Low	Low	Low
3	Vietnam	High	Low	Low	High	Low
4	Équateur	High	Low	Low	Low	Low
5	Pologne	High	Low	Low	Low	Low

L'intensité de couleur correspond au pourcentage de recherches [EN SAVOIR PLUS](#)

(espace & société) numérique ?

facebook twitter tik tok instagram snapchat

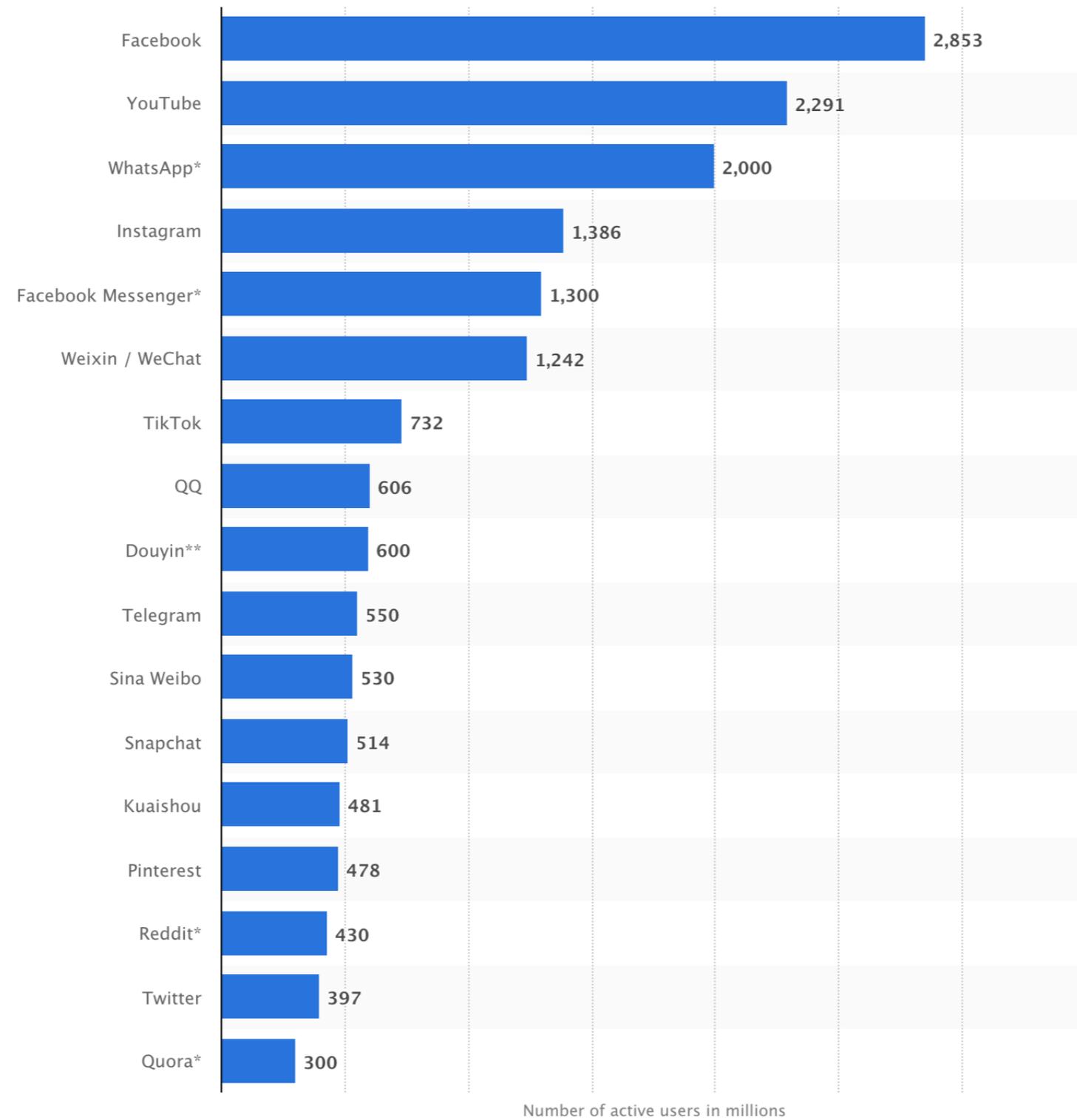
Dans tous les pays, 12 derniers mois



L'intensité de couleur correspond au pourcentage de recherches [EN SAVOIR PLUS](#)

5 Pologne

(espace & société) numérique ?



Social Networks Active Users 2021 - Statista

(espace & société) numérique ?

De l'espace virtuel
aux virtualités de l'espace

Où est l'espace ?

Quand est le temps ?

(espace & société) numérique ?

Espace virtuel ?

Temps virtuel ?

(espace & société) numérique ?

Espace réel ?

Temps réel ?

Où est l'espace ?

Espace réel ?

Espace virtuel ?

Quand est le temps ?

Temps réel ?

Temps virtuel ?

(espace & société) numérique ?

" Space is the order of Coexistences
whereas time is the order of successive Existences "

« L'Espace est l'ordre des Coexistences
et le Temps est l'ordre des Existences successives ».

Gottfried Wilhelm Leibniz (1715), in *Correspondance Leibniz-Clarke*, présenté par André Robinet, PUF, 1991, p. 42.

(espace & société) numérique ?

(espace & société) numérique ?

Espace

Topos

Absolu - Étendue

Positionnel-Eternel

Aristote

Newton

Sens commun

Chôra

Relatif - Distance

Relationnel-Contingent

Platon

Leibniz

Einstein

De l'Écoumène à Internet

Espaces d'Internet

Topos

Data Centers

Backbones

Boucle locale

...

Chôra

Facebook

Wikipédia

Uber

Tinder

...

Des lieux topographiques aux lieux réticulaires

Enjeux d'Internet

Topos

Fracture numérique

Souveraineté

Cyberguerre

...

Chôra

Commons

Collaboration

Vie privée

Vulnérabilité

...

Des enjeux nationaux to enjeux mondiaux

(espace & société) numérique ?

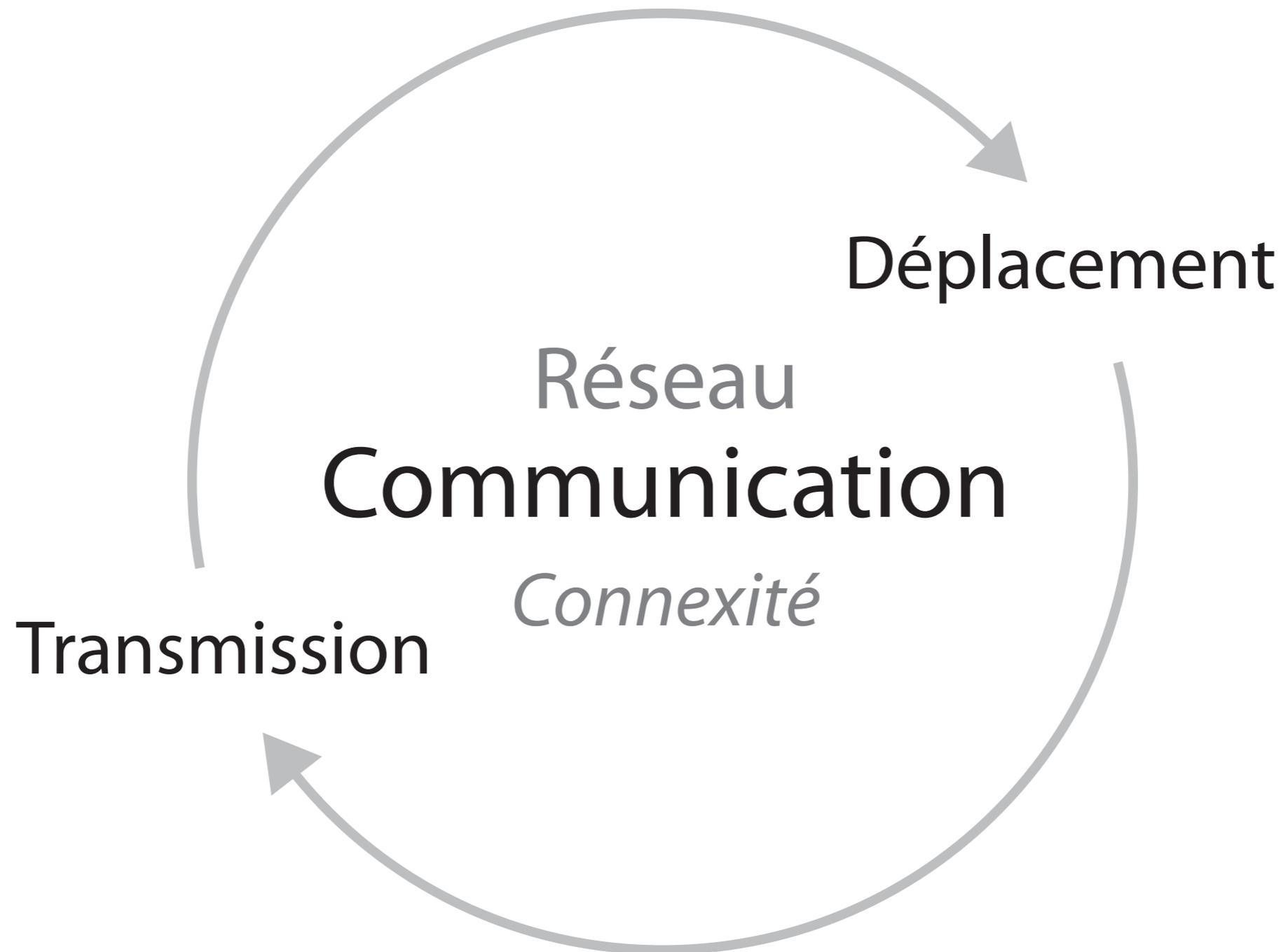
Synchôrisation ?

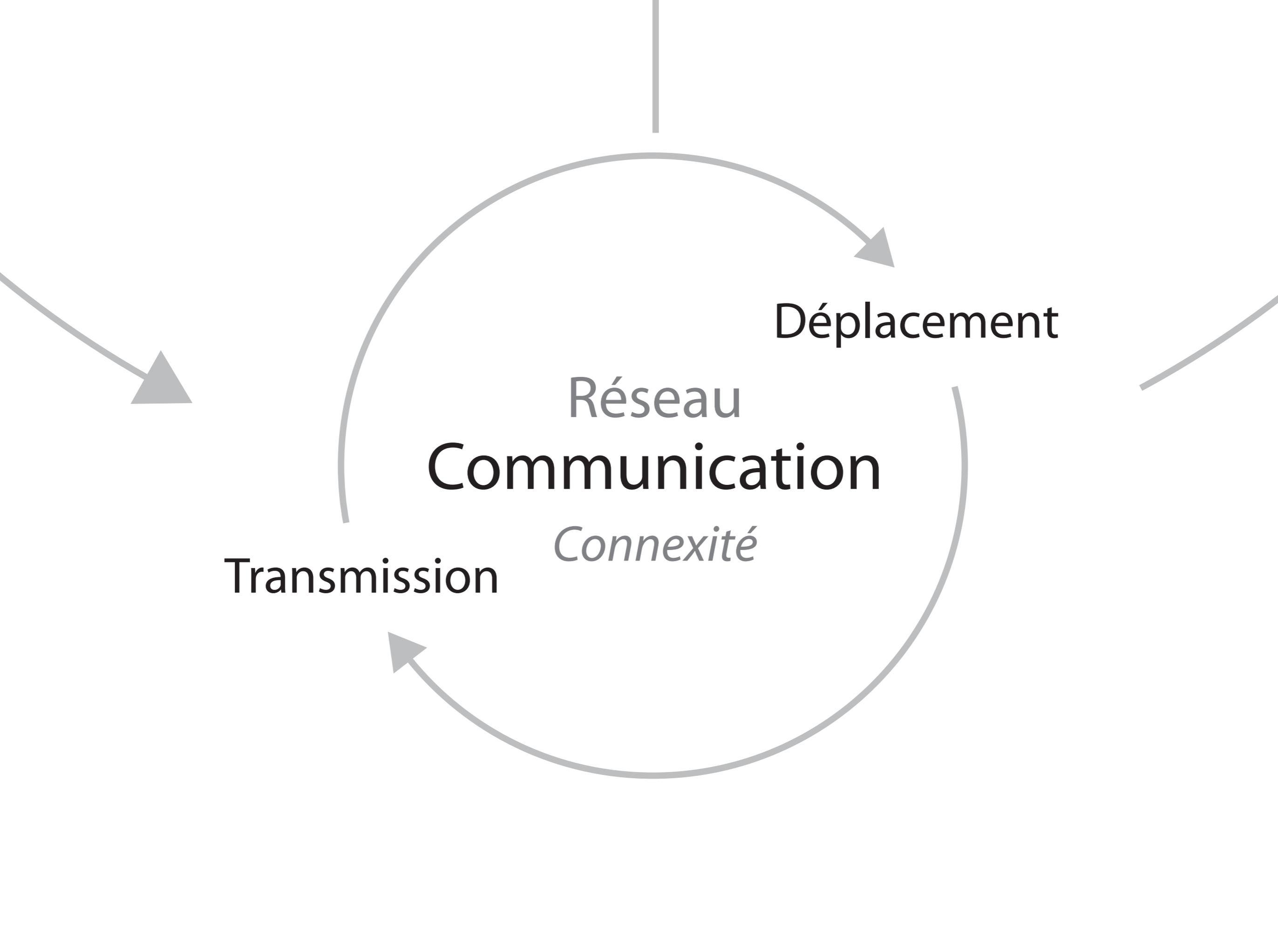
(espace & société) numérique ?

“Synchôrisation is the process whereby a space become a place »

« La synchôrisation est le processus par lequel un espace devient un lieu ».

Boris Beauce, *Internet, changer l'espace, changer la société*, Fyp, 2012.





Réseau
Communication

Connexité

Déplacement

Transmission

(espace & société) numérique ?



Changer l'espace, changer la société

FYP - 2012

(espace & société) numérique ?



Internet

Changer l'espace

nouveaux moyens de transmission

nouvelles relations

nouveaux espaces

nouveaux lieux

Changer la société

nouvelles virtualités

nouvelles pratiques

nouveaux enjeux

nouvelle(s) société(s)

Du changement technique au changement sociétal

(espace & société) numérique ?



Les fins d'Internet
FYP - 2014



The Ends of the Internet
Institute of Network Cultures, 2016.

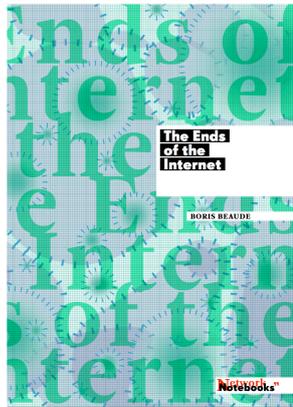
Boris Beaupe

**Les fins
d'Internet**

ISG

STIMULO

f/p



Les fins d'Internet

Finalités/Ends

Abolition de l'espace

Liberté d'expression

Gratuité/Free

Intelligence collective

Décentralisation

Résilience

Neutralité du Net

Terminaisons/Endings

Résurgence des territoires

Surveillance mondiale

Propriété

Capacité distributée

Hypercentralité

Vulnérabilité

Neutralisation d'Internet

Des utopies aux politiques

(espace & société) numérique ?

De l'invention d'Internet

*à l'invention du Monde
avec Internet*

Coexister après la synchôrisation



Illustration : Zak Bickel / The Atlantic / 2015

Boris Beaude

STSLab - Université de Lausanne

Courriel : boris.beaude@unil.ch

Site : <http://www.beaude.net/boris/>

Site du cours : <http://www.beaude.net/ien/>

Blog : <http://www.beaude.net/no-flux/>

Twitter : [@nofluxin](https://twitter.com/nofluxin)

Facebook : [nofluxin](https://www.facebook.com/nofluxin)

Les fins d'Internet, Fyp, 2014

<http://www.beaude.net/ie/>

Internet, changer l'espace, changer la société, Fyp, 2012

<http://www.beaude.net/icecs/>