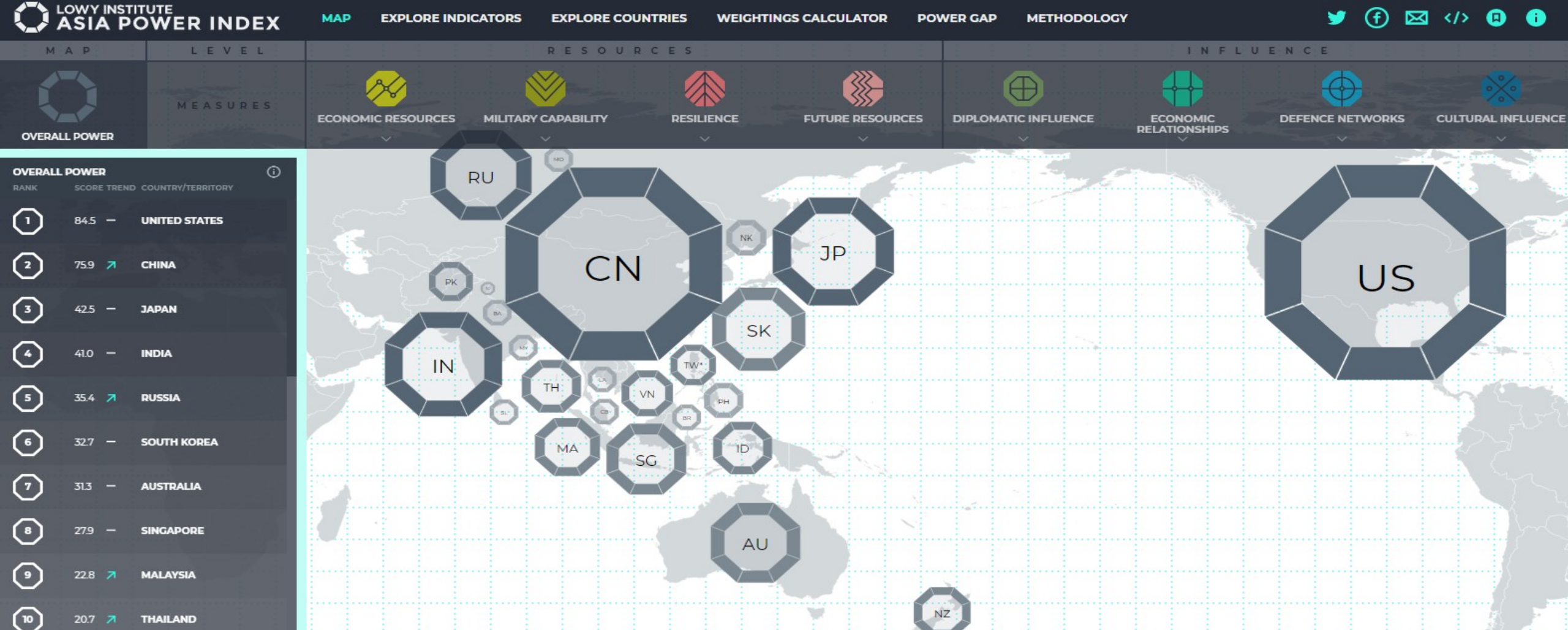


Le cyberspace instrument de puissance et lieu de contestation de l'hégémonie américaine

Lycée bossuet
13 décembre 2019

A solid orange horizontal bar at the bottom of the slide.

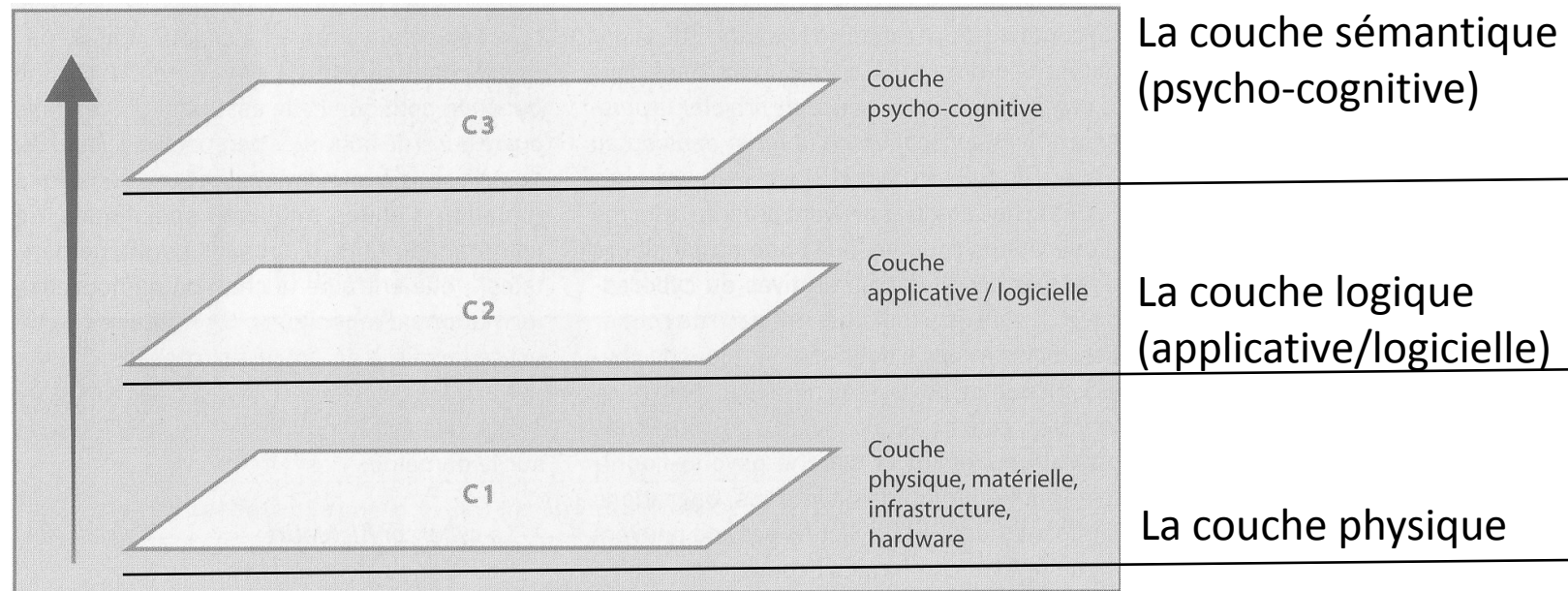


Introduction: la notion de puissance

Source: Lowy Institute
Asia Power Index 2019

Le cyberspace lieu d'expression de la puissance américaine

La structuration par couche du cyberspace



Les trois couches constitutives du cyberspace. (Illustration et tableau extraits de : Daniel Ventre, *Cyberspace et acteurs du cyberconflit*, éditions Hermès Lavoisier, Paris, 2011.)

Les trois couches du cyberspace

Un territoire américain?

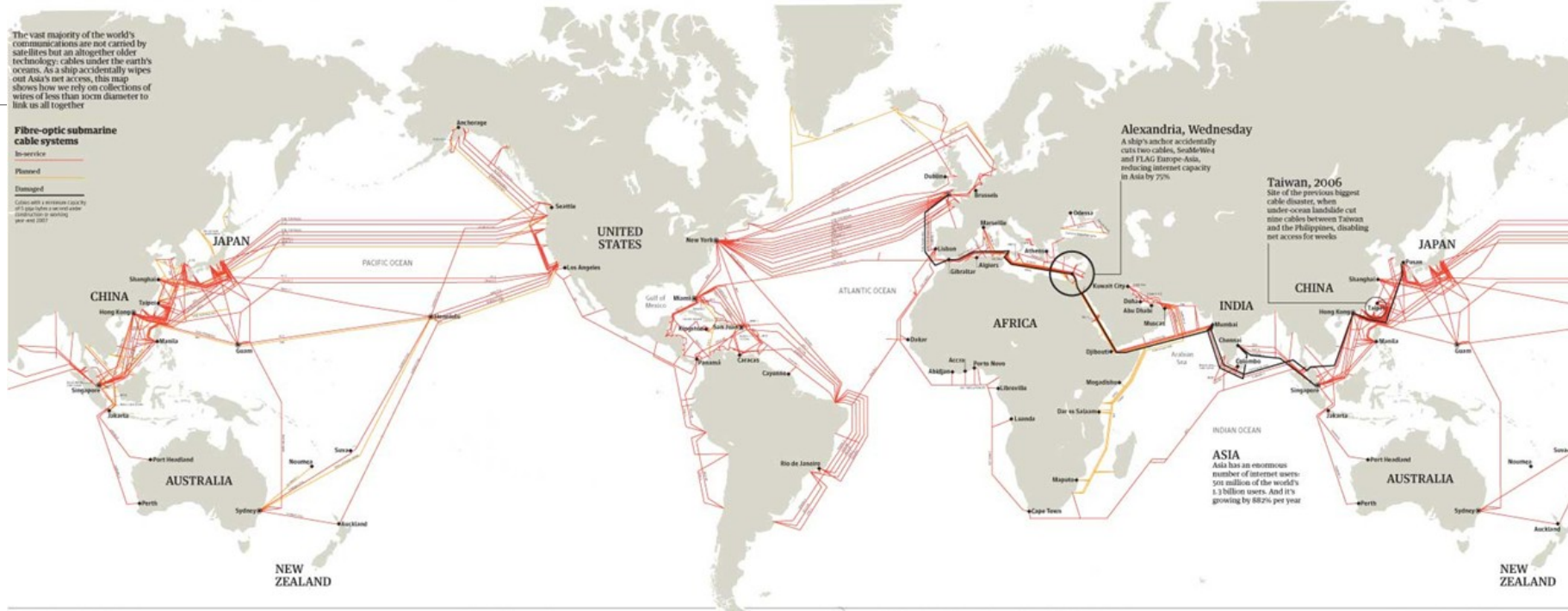
The internet's undersea world

The vast majority of the world's communications are not carried by satellites but an altogether older technology: cables under the earth's oceans. As a ship accidentally wipes out Asia's net access, this map shows how we rely on collections of wires of less than 10cm diameter to link us all together

Fibre-optic submarine cable systems

- In-service
- Planned
- Damaged

Cables with a minimum capacity of 100 Gbps have a red and white border indicating a working year until 2007



Alexandria, Wednesday

A ship's anchor accidentally cuts two cables, SeabedNet-1 and FLAG Europe-Asia, reducing internet capacity in Asia by 75%

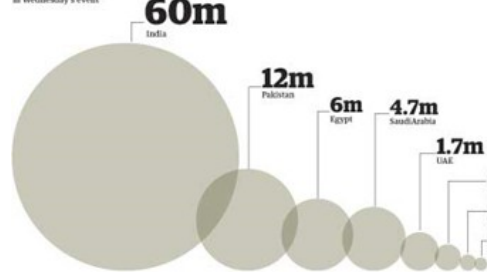
Taiwan, 2006

Site of the previous biggest cable disaster, when under-ocean landslide cut nine cables between Taiwan and the Philippines, disabling net access for weeks

ASIA
Asia has an enormous number of internet users: 500 million of the world's 1.3 billion users. And it's growing by 88% per year

Internet users affected by the Alexandria accident

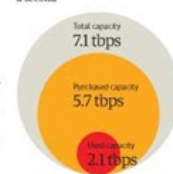
The main countries affected in Wednesday's event



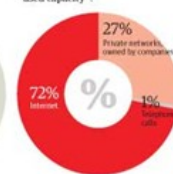
World cable capacity

Submarine cable operators light (turn on) capacity on their systems to sell bandwidth to other carriers. Carriers buy extra capacity, mainly to hold in reserve, on the trans-Atlantic route 80% of the bandwidth is purchased, but only 29% is used

Capacity in terabytes a second



What makes up "used capacity"?



The longest submarine cables

The SeabedNet-1 system from Norden in Germany to Kerguelen, South Korea connects 32 different countries with 35 landing points

SeabedNet-1	35,000 km
Southern Cross	30,500 km
China-ES	30,475 km
FLAG Europe-Asia	20,000 km
South America-1	25,000 km

The world's cables in bandwidth

The first intercontinental telephony submarine cable system, TAT-1, connected North America to Europe in 1956 and had an initial capacity of 640,000 bytes per second. Since then, total trans-Atlantic cable capacity has soared to over 7 million bps



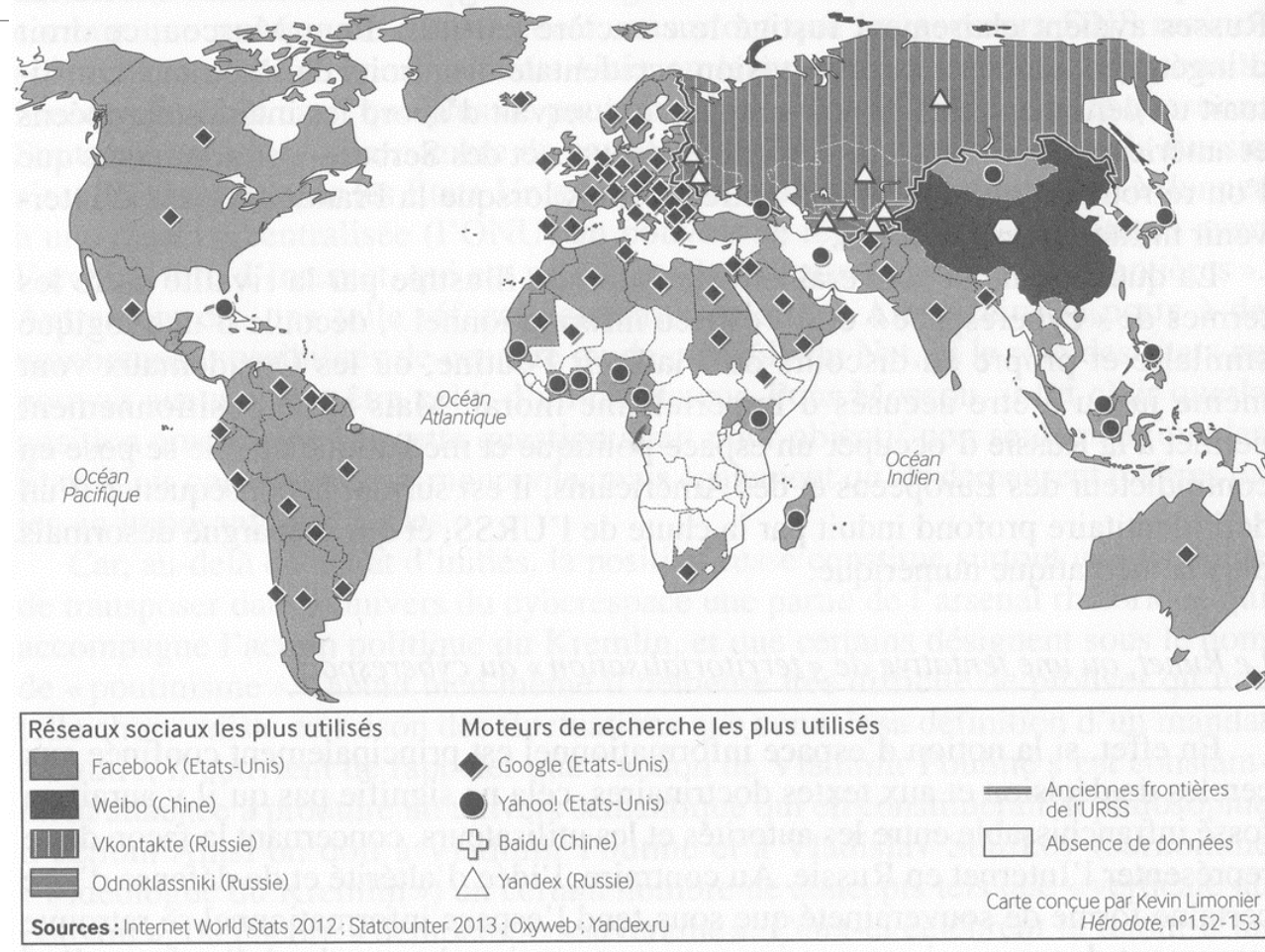
Cross-section of a cable

Cables of this strength are typically 60 mm in diameter and weigh over 10,000 kilograms a kilometer. In deeper waters, lighter and less insulated cables are used



Un territoire américain?

CARTE 1. – LE RUNET, UN CYBERSPACE CULTUREL ALTERNATIF :
L'EXEMPLE DES RÉSEAUX SOCIAUX ET DES MOTEURS DE RECHERCHE



Une puissance hégémonique?

- L'hégémonie: une forme particulière d'exercice de la puissance...
 - ... qui repose sur un statut...
 - ... et se traduit par 3 fonctions (normative, sécuritaire, économique)

- Le cyberspace, instrument de l'hégémonie américaine?
 - La gouvernance du cyberspace et de l'Internet
 - Un espace à surveiller, contrôler et protéger

Le lieu de contestation de la puissance américaine

- Un contrôle incomplet du cyberspace
 - Un espace opéré par le secteur privé (GAFAM)
 - Un espace régulé par les acteurs privés
- Un lieu de rivalités, de compétition et de confrontation
 - Des projets géopolitiques alternatifs
 - La vulnérabilité des États-Unis
 - Un champ de bataille
- L'administration Trump: réaffirmer l'hégémonie et projeter la puissance