La naissance d’ARPANET en contexte

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L’histoire d’internet en questions

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Multiplicité des origines d’internet

Origines d’internet : L’informatique interactive

Nouveau modèle de l’ordinateur (début 60’s)
Ordinateurs en time-sharing

Interactions hommes-machines
(Licklider 1960)


Prévention de la bibliothèque virtuelle (Lisklader 1961-62)

Partage des ressources, réseaux des « communautés en ligne » (Lisklader, Fana 1983)

Recherches sur les interfaces (méth.), l’hyper-texte...
Origines d’internet : Premiers travaux sur la transmission par paquets

Paul Baran :
1960-65 : idée de réseau distribué
Projet Baran souvent confondu avec Arpanet

L’IPTO (Information Processing Techniques Office)

Petit service de la recherche informatique au sein de l’ARPA, créé en 1962
Des dirigeants visionnaires (Licklider), jeunes et brillants (Sutherland, Taylor, Roberts)
Des moyens financiers importants
Une équipe très réduite (1-4 personnes)
Un fonctionnement souple, informel
Une vision de l’informatique interactive et communicationnelle
Un réseau de chercheurs
De nombreux projets de recherche avancée

19/11/2019

1973, il y avait une conférence majeure sur les communications informatiques au Royaume-Uni. C’était un événement important, en particulier si nous considérons que Bob Kahn et Vint Cerf ont commencé à parler de ce qu’il est devenu le TCP. Je devais partir un jour plus tôt, j’étais rentré chez moi pour déballer, et je me rendis compte que j’avais laissé mon rasoir électrique à Brighton. À cette conférence, nous avions établi une ligne de haute vitesse de Londres, qui était un nœud ARPANET, jusqu’à l’Université de Sussex. C’était une scène incroyable à quatre heures du matin à Brighton. Alors, je pensais : “Qui diable va être de service à cinq heures du matin ?” Je me suis connecté à mon terminal et il y avait un magnifique programme appelé “Resource Sharing Executive”. Vous pouviez taper le nom de n’importe qui et dire “Roberts”. Il y avait cinq minutes plus tard, il est revenu et dit, “Roberts est de service”. Nous avions la capacité de communiquer. Il n’y avait pas de session de chat formelle, il s’agissait d’un chat informel. Les gens étaient capables de communiquer en tapant des choses sur le terminal d’autrui. Je pouvais taper sur le sien et il pouvait taper sur le mien. C’était un type de communication rudimentaire. (…)

Morten Bay (2018)
Conversation with a pioneer: Leonard Kleinrock, Internet Histories 2: 1-2, 140-152
De nouvelles tendances historiographiques

Mémoire de Technologies en la Matière de la Société

Johanna L. Hostetler

Collège de l'École de Technologie et de l'Innovation

Mise au point à la 5ème Conférence de la Société Internationale de Technologie

19/11/2019

The production and Interpretation of ARPA Networks Maps

Bradley Fielder and Morgan Garcia

University of California, Los Angeles

A specific parameterization of the map of ARPA Networks is illustrated, showing the connections between the nodes. The geographic maps appear to privilege geography to show these connections, although geography is pushed aside in the case of maps in Hawaii or London, which simply show up as "outside the continental United Kingdom". Concentrations of nodes, power centers of the U.S. network, are magnified to fit the nodes on the printed map. On later geographic maps, satellite connections were represented as uneven links and experimental satellite connections were not shown at all. In the case of both maps, all links between IMPs, even on geographic maps, are displayed logically, only revealing their origins and destinations; the actual geographic routes of the ARPA-NET’s leased lines, and the connections and transfers across the line’s routes, were unknown to IMPs. Indeed, even though the
Les maintenance et infrastructure studies pour une nouvelle approche de l'histoire d’ARPANET.

De quoi la naissance d’ARPANET est-elle la fête ?

- UCLA computer science professor Leonard Kleinrock established the first local connection between two computers in his lab. Matthew Moore called this “the most appropriate” of all the anniversaries. Discovery magazine and National Geographic both identify this as the true date.

Gustini R. (2011). “Happy Birthday Internet? Today is one of the many dates people cite as the Internet’s birthday.” The Atlantic, 7 April.

- "Happy birthday, Internet! You may be turning 45 today, but we swear you don’t look a day over 30. […]"

Now do we define the invention of the internet? Is it genuine that scholars and armchair historians have debated a day for years? If we are to define the birthday of the internet, it cannot be denied that the first host-to-host connection of the ARPANET between UCLA and Stanford on October 29, 1969, at 10:30PM.

French memories about the ARPANET: a conversation with Michel Élie and Gérard Le Lann

The idea of making profit from the network was completely absent. It was an idyllic world where people just shared, and the NWG was the main apostle of this. For instance, Lawrence Roberts, the project manager, immediately accepted that the specifications would be open. The NWG was strongly opposed to computer manufacturers and their influence on the shape of networks.

(... The ARPANET anniversary should emphasize the non-profit, social and societal sides of network developments and uses. It should be an opportunity to stress that the urgency seems not to be in technology but in re-humanizing the Internet and its uses in order to serve social needs all over the earth: let the Internet be human again!)

“...A guy named Gérard Lelann (sic) was at IRISA working with Pouzin and came to my lab at Stanford for a year and had a lot to do with the early discussions of what the TCP would look like. So did Bob Metcalfe. It turns out. Metcalfe was at Xerox at the time and in June of 1973 we began working together, Lelann, Metcalfe, and I, on the design of the host-to-host protocol for INTERNET. Eventually Metcalfe got impatient with the pace we were going at, so he went off and invented XNS, which was a local area network protocol. So he went off and invented XNS, which was a local area network protocol, which was a different choice than the TCP did. And they got it up and running before us, in fact. Of course in the long run we ve... They kept it secret, and that was a mistake. I guess, now looking back. If they hadn’t kept it secret, we might all be using XNS instead of TCP. But as it stood, TCP turned out to be the open protocol that everybody had a finger in at one time or another. That’s just how it all worked out.”


http://scihi.org/steve-crocker/rfc/