

# PENNI - Policy Enabled Next Generation Internet



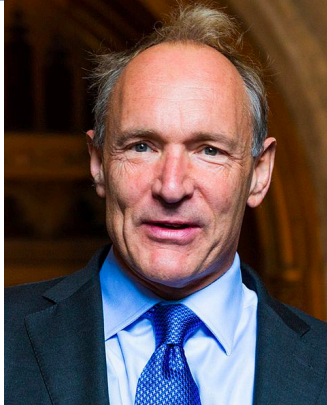
Sabrina Kirrane, 22.10.2019

IMAGINE19

*This work is supported by the Austrian Science  
Fund project number V 759*

# The World Wide Web

## The Past!



### Information Management: A Proposal

Tim Berners-Lee, CERN

March 1989, May 1990

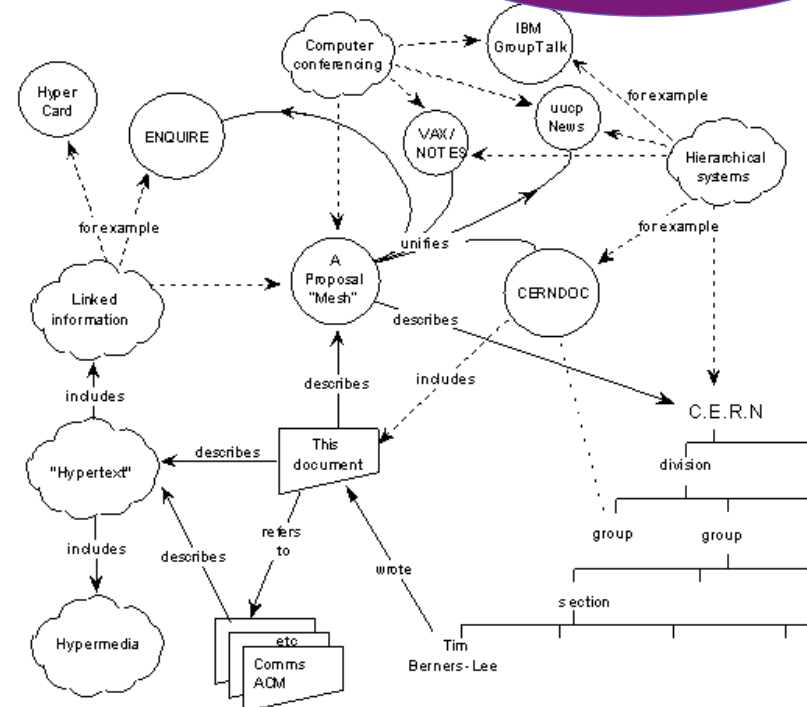
*This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.*

#### Overview

Many of the discussions of the future at CERN and the LHC era end with the question - "Yes, but how will we ever keep track of such a large project?" This proposal provides an answer to such questions. Firstly, it discusses the problem of information access at CERN. Then, it introduces the idea of linked information systems, and compares them with less flexible ways of finding information.

It then summarises my short experience with non-linear text systems known as "hypertext", describes what CERN needs from such a system, and what industry may provide. Finally, it suggests steps we should take to involve ourselves with hypertext now, so that individually and collectively we may understand what we are creating.

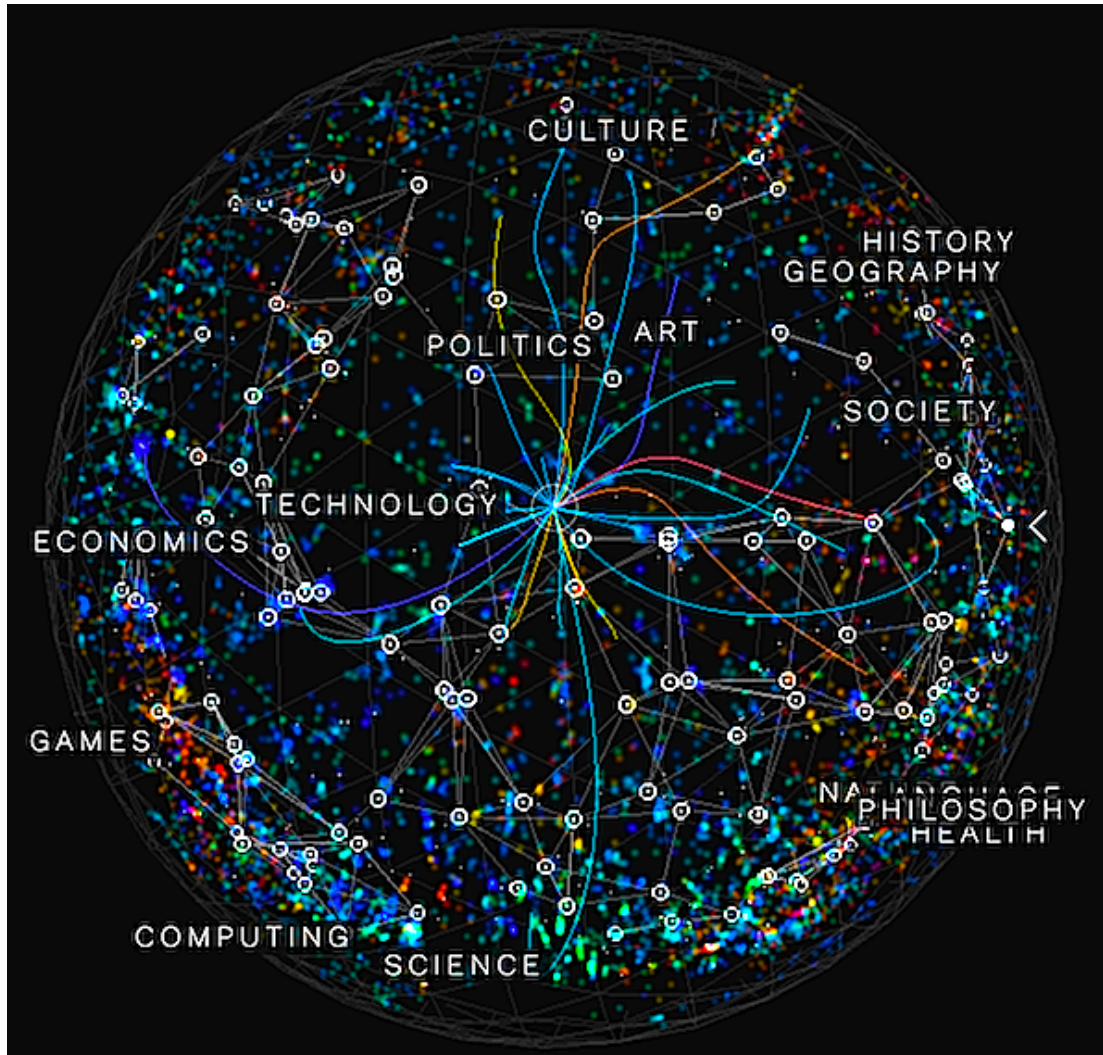
In 1989  
 Tim Berners Lee  
 invented the  
 World Wide Web



**1989 The original proposal for the Web**  
<https://www.w3.org/History/1989/proposal.html>

# The World Wide Web

## The Present!



30 years later the Web has become indispensable!

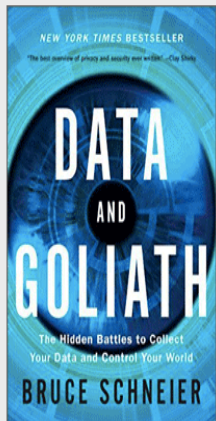
[https://commons.wikimedia.org/wiki/File:WikiVerse\\_at\\_WM\\_NYC\\_WikiWednesday.png](https://commons.wikimedia.org/wiki/File:WikiVerse_at_WM_NYC_WikiWednesday.png)

# The World Wide Web The Present!

## Schneier on Security



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March 2015  
W. W. Norton & Company  
320 Pages  
Hardcover:  
ISBN 978-0393244816

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### Data and Goliath

The Hidden Battles to Collect Your Data and Control Your World

A Book by Bruce Schneier

*A New York Times Best Seller*

You are under surveillance right now.

Your cell phone provider tracks your location and knows who's with you. Your online and in-store purchasing patterns are recorded, and reveal if you're unemployed, sick, or pregnant. Your e-mails and texts expose your intimate and casual friends. Google knows what you're thinking because it saves your private searches. Facebook can determine your sexual orientation without you ever mentioning it.

The powers that surveil us do more than simply

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#### About Bruce Schneier



However, is the current Web what we want?



## The Cambridge Analytica Files

A year-long investigation into Facebook, data, and influencing elections in the digital age

### Key stories

**Revealed / 50 million Facebook profiles harvested for Cambridge Analytica in major data breach**

**I made Steve Bannon's psychological warfare tool: meet the data war whistleblower**

Christopher Wylie goes on the record to discuss his role in hijacking the profiles of millions of Facebook users in order to

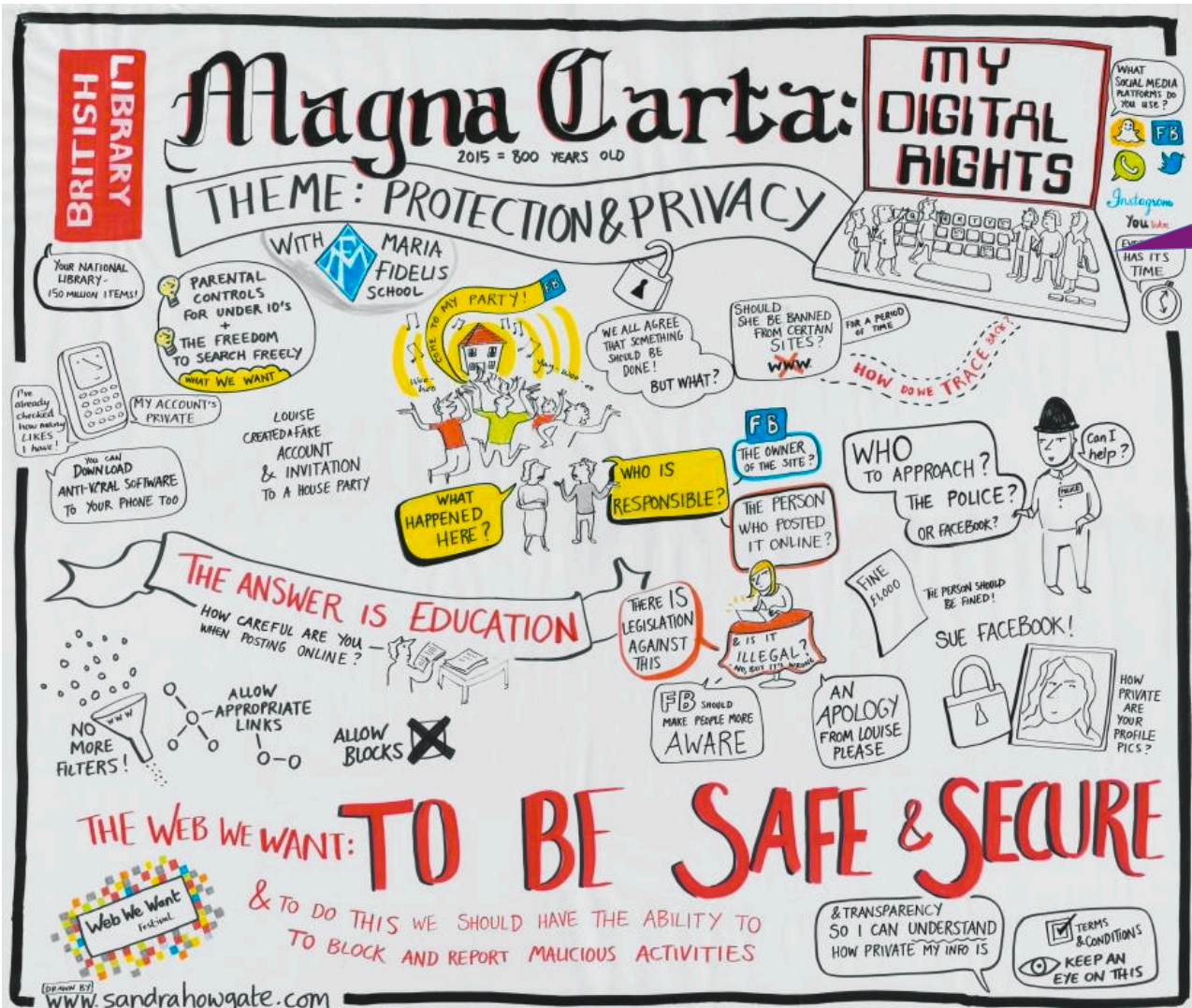
**Revealed: Brexit insider claims Vote Leave team may have breached spending limits**

Whistleblower alleges that electoral spending rules could have been manipulated over controversial donation and that Vote Leave 'tried to delete key

[https://www.schneier.com/books/data\\_and\\_goliath/](https://www.schneier.com/books/data_and_goliath/)

<https://www.theguardian.com/news/series/cambridge-analytica-files>

# The World Wide Web The Future!

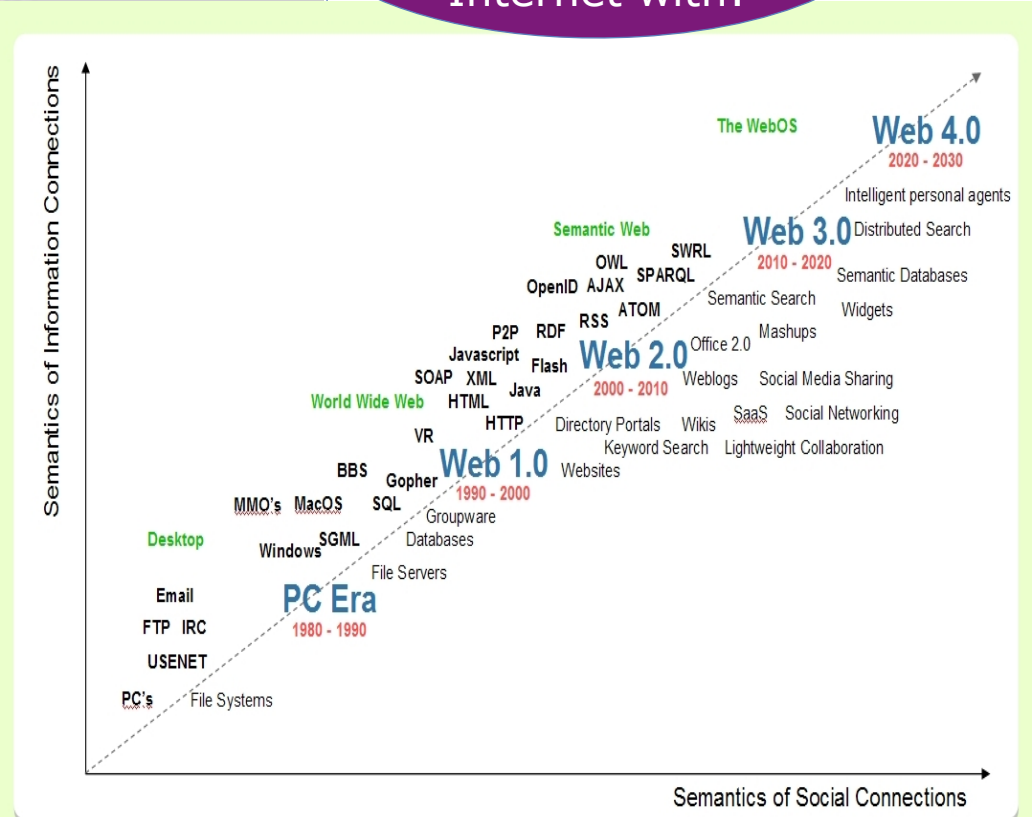


According to next generation we need:

# The World Wide Web

## The Future!

In PENNI we envisage a Next Generation Internet with:



Source: Radar Networks & Nova Spivack, 2007 - www.radarnetworks.com

Image by Radar Networks; Nova Spivak  
<http://memebox.com/futureblogger/show/824>

# Thank you / contact details

# FWF

Der Wissenschaftsfonds.

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