

Introduction of Open Data Policy and License

開放資料政策與授權介紹

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(2013生物多樣性及生態研究開放資料國際研討會暨工作坊)

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OSSF, CITI,
Academia Sinica

OPEN SOURCE SOFTWARE FOUNDRY, OSSF

<http://www.openfoundry.org/en/about>

Analysis and interpretation of General Public Licenses

- Open Source Software License
- Creative Commons, Open Data License
- Email at lucien.cc@gmail.com
- Linkedin at <http://tw.linkedin.com/in/lucienchlin>

Outline

- What is General Public License
- Crucial things you should know about Open Data
- Open Data in General Public Licensing way

1. What is General Public License

General Public Unspecific Commons

License
granting the rights for
utilization

License

Various **rules** about
the utilization

General Public License

Granting some **rights** to
many people by **pre-**
declaring many **rules**

Right Holder: People can utilize my work, implement it, redistribute it, or even rewrite it at their own will, BUT, the rules predeclared must be followed.

This is so-called **OPEN** nowadays

OPEN to the Public

But **WHY**?

The one who actually
did the software development.



FAIR USE in the speech of Open Source and Open Data outreach and promotion activities.

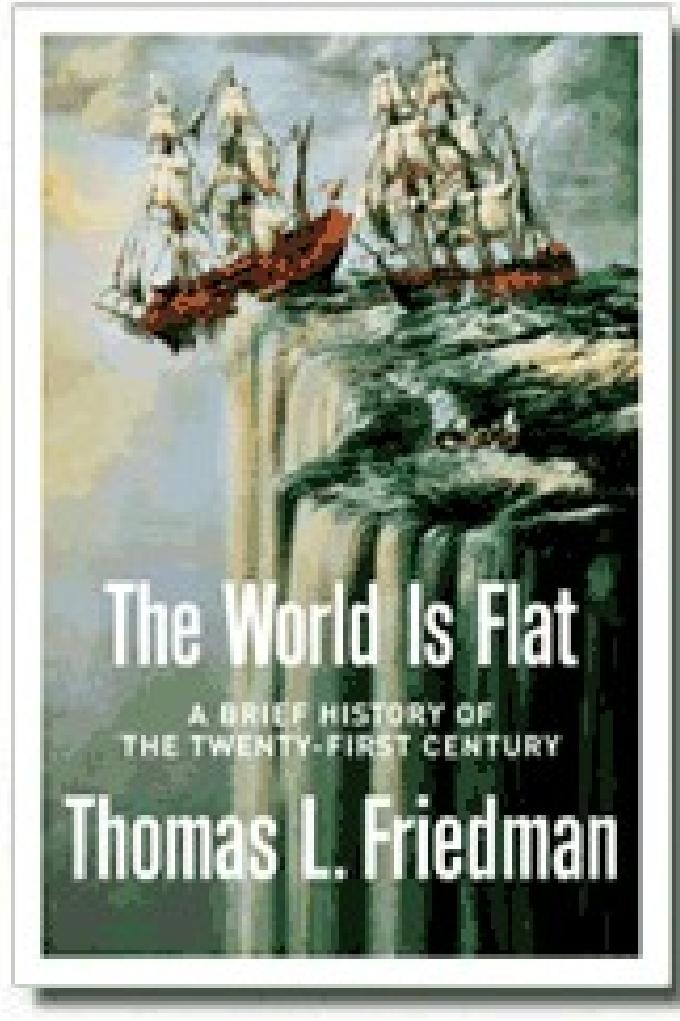
OPEN

beaucracy



The World Is Flat: A Brief History of the Twenty-first Century

《世界是平的：一部二十一世紀簡史》



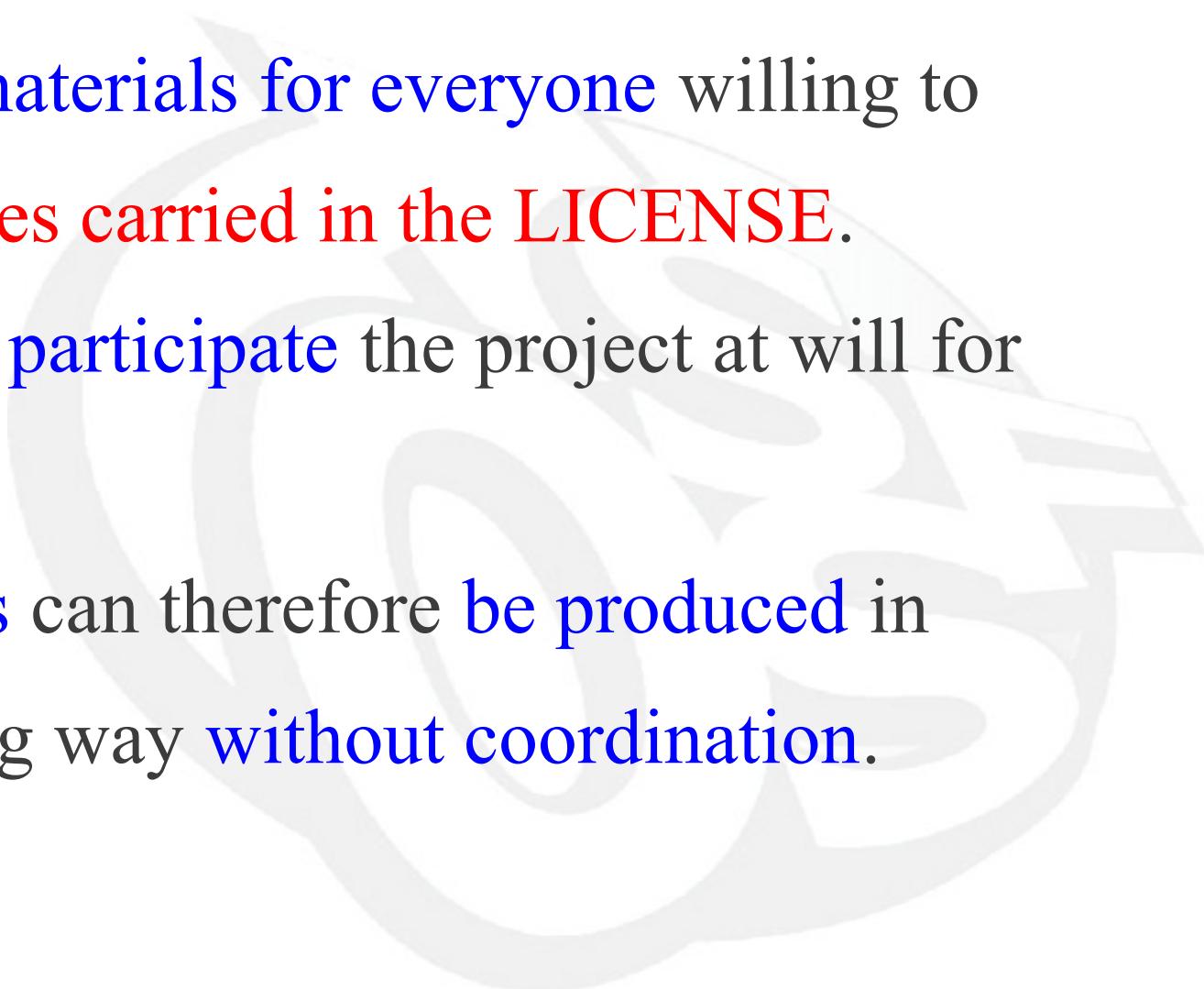
Cover of The World Is Flat by [Thomas Friedman](#)

FAIR USE at: <http://upload.wikimedia.org/wikipedia/zh/d/d1/Worldisflat.gif>

全球化

Globalization

OPEN

- 
1. Open the materials for everyone willing to follow the rules carried in the LICENSE.
 2. People can participate the project at will for cooperation.
 3. Joint works can therefore be produced in crowdsourcing way without coordination.

1. Don't have to reinvent the wheel
2. Cooperation without coordination



FAIR USE at: <http://www.mysql.com/>

2. Crucial things you should know about Open Data

Free and Open Source **SOFTWARE**

Free to **modify & redistribute**

Richard M. Stallman



©Gisle Hannemyr, CC by-sa 3.0 unported,
http://en.wikipedia.org/wiki/File:Rms_ifi_large.jpg

GNU Project

“GNU's Not Unix!”



Attend a Linux Event



Enroll In Linux Training



Read a Publication

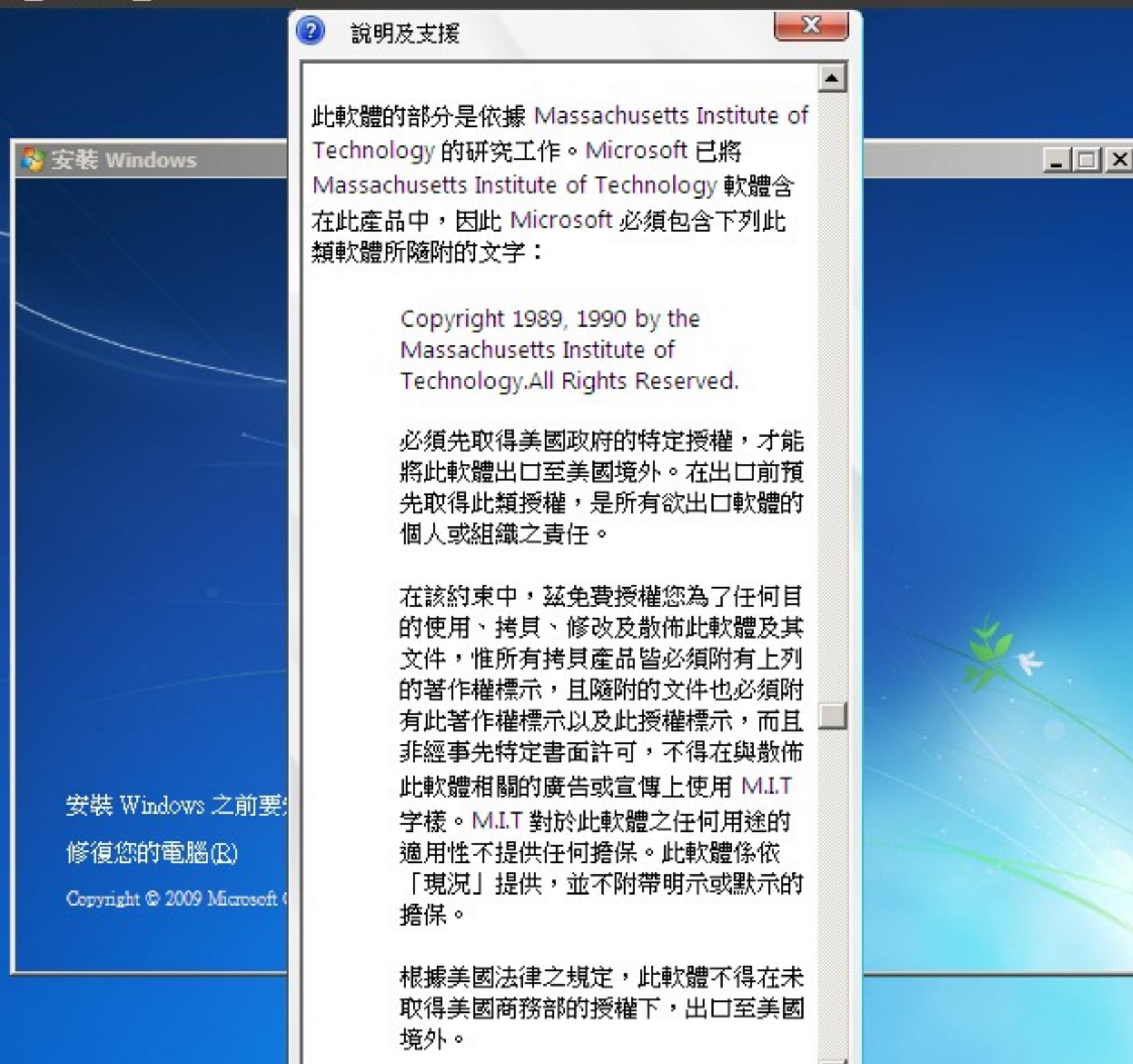
What is The Linux Foundation?

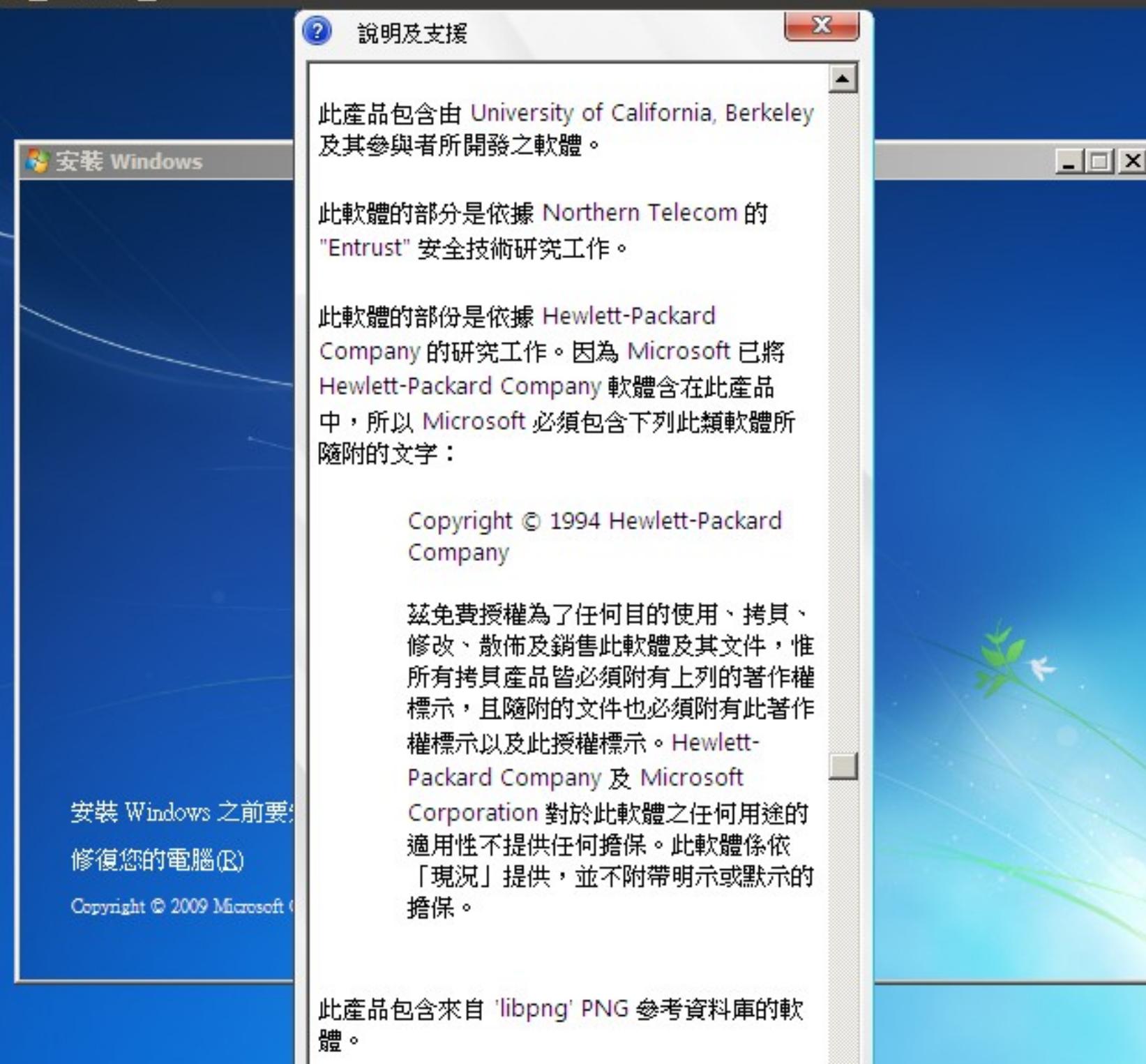
The Linux Foundation promotes, protects and advances Linux including supporting the work of Linux creator Linus Torvalds. [Learn More](#)











Mac OS

X

Hello Tomorrow.

Leopard



Open Content MATERIAL

Free to redistribute & reuse or remix

Lawrence Lessig



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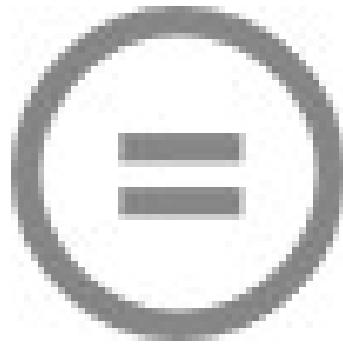
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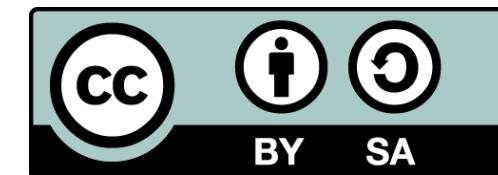
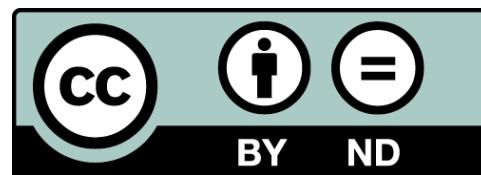
“Sharing Creativity”

創用 CC

Creative Commons License







Wikipedia (www.wikipedia.org)

WIKIPEDIA

English
The Free Encyclopedia
3 120 000+ articles

Deutsch
Die freie Enzyklopädie
990 000+ Artikel

Français
L'encyclopédie libre
885 000+ articles

Italiano
L'enciclopedia libera
635 000+ voci

Português
A encyclopédia livre
527 000+ artigos

日本語
フリー百科事典
637 000+ 記事

Español
La encyclopédie libre
539 000+ artículos

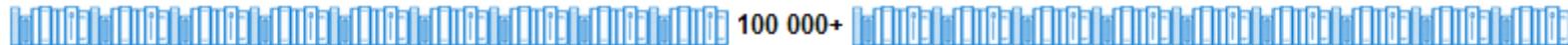
Polski
Wolna encyklopedia
657 000+ haset

Русский
Свободная энциклопедия
466 000+ статей

Nederlands
De vrije encyclopedie
575 000+ artikelen

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cari • hľadať • بحث • tìm kiêm • претрара

中文



100 000+

Open Hardware PRODUCT

Free to **implement & re-design**



About

HOW IT BEGAN

A small team of Facebook engineers spent the past two years tackling a big challenge: how to scale our computing infrastructure in the most efficient and economical way possible.

Working out of an electronics lab in the basement of our Palo Alto, California headquarters, the team designed our first data center from the ground up; a few months later we started building it in Prineville, Oregon. The project, which started out with three people, resulted in us building our own custom-designed servers, power supplies, server racks and battery backup systems.

Because we started with a clean slate, we had total control over every part of the system, from the software to the servers to the data center. This meant we could:

- Use a 480-volt electrical distribution system to reduce energy loss.
- Remove anything in our servers that didn't contribute to efficiency.
- Reuse hot aisle air in winter to both heat the offices and the outside air flowing into the data center.
- Eliminate the need for a central uninterruptible power supply.

The result is that our Prineville data center uses 38 percent less energy to do the same work as Facebook's existing facilities, while costing 24 percent less.

Everyone has full access to these specifications. We want you to tell us where we didn't get it right and suggest how we could improve. And opening the technology means the community will make advances that we wouldn't have discovered if we had kept it secret.

WHERE WE GO FROM HERE

The ultimate goal of the Open Compute Project is to spark a collaborative dialogue. We're already talking with our peers about how we can work together on Open Compute Project technology. We want to recruit others to be part of this collaboration — and we invite you to join us in this mission to collectively develop the most efficient computing infrastructure possible.



RSS Feed

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[This Journey 2% Finished](#)

[OCP-APAC](#)

[Open Compute Summit IV: Hardware Hackathon](#)

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FPGA Software Design Tool

LatticeSemi.com/
ispLEVER Starter Trial Download in 3
Easy Steps



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What is OpenCores?



the #1 community within open source hardware IP-cores

OpenCores is the world's largest site/community for development of hardware IP cores as open source.

OpenCores.org host the source code for different digital HW projects (IP-cores, SoC, boards, etc) and support the users with different tools, platforms, forums and other useful information. Please join us!

Projects



[Browse all Projects \(Cores\)](#)

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Funding - OpenRISC ASIC



[Worlds first open-source ASIC](#)

Forum



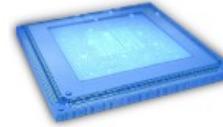
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OpenRISC Platform



[OpenRISC platform info](#)

Professional support



Professional support for OpenCores technology based products.

If you plan to use IPs from OpenCores in your next design and need support, please contact ORSoC AB.

They are experts in SoC design based on the OpenCores technology and have extensive experience all parts of FPGA/ASIC development.

Please contact [ORSoC](#) for further information.

Registered OpenCores users



181507

[OpenCores statistics](#)

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- [Funbase IP library](#)
- [LPD8806 RGB LED string driver](#)
- [USB 3.0 Device and Host IP Core](#)
- [I2C controller core](#)
- [USB 1.1 PHY \(VHDL\)](#)
- [USB 1.1 Simulation \(VHDL\)](#)
- [UART16550](#)
- [Atlas Processor Core](#)



Most popular projects

- [OpenRISC 1000](#)
- [Ethernet MAC 10/100 Mbps](#)
- [I2C controller core](#)
- [Advanced Debug System](#)
- [SPI Master/Slave Interface](#)
- [UART 16550 core](#)
- [Ethernet MAC 10/100 Mbps](#)
- [minsoc](#)



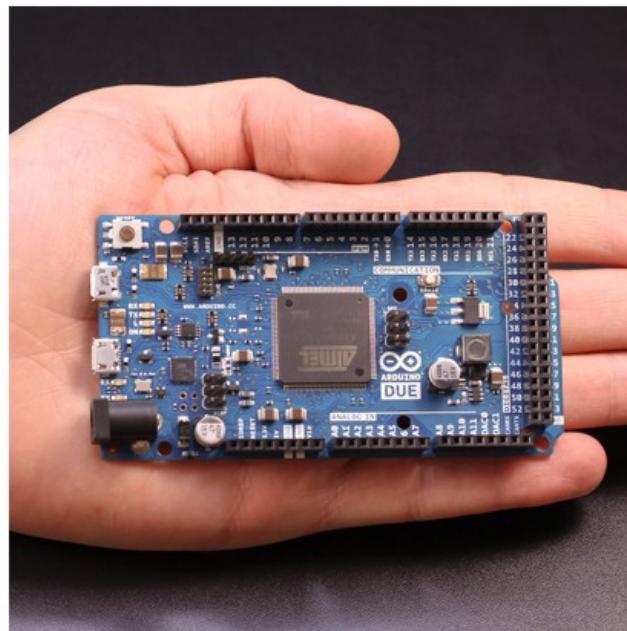
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Photo by the Arduino Team

[Arduino Blog \(more\)](#)

[about 17 hours ago](#)

The joystick that changed a life and could help many more:
Robert Book is a tinkerer by nature and works at Si... <http://t.co/OTLcnNTnV1>

Arduino is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. It's intended for artists, designers, hobbyists, and anyone interested in creating interactive objects or environments.

Arduino can sense the environment by receiving input from a variety of sensors and can affect its surroundings by controlling lights, motors, and other actuators. The microcontroller on the board is programmed using the [Arduino programming language](#) (based on [Wiring](#)) and the Arduino development environment (based on [Processing](#)). Arduino projects can be stand-alone or they can communicate with software running on a computer (e.g. Flash, Processing, MaxMSP).

The boards can be [built by hand](#) or [purchased](#) preassembled; the software can be [downloaded](#) for free. The hardware reference designs (CAD files) are [available](#) under an open-source license, you are free to [adapt them to your needs](#).

Arduino received an Honorary Mention in the Digital Communities section of the 2006 Ars Electronica Prix. The Arduino team is: [Massimo Banzi](#), [David Cuartielles](#), [Tom Igoe](#), [Gianluca](#)

Open Data **POLICY**

Free to **access & use**

Barack Obama



Work pertained to U.S. Government without copyright restrictions under U.S. copyright laws at: http://farm6.staticflickr.com/5535/9515309159_34e7ecb686_o.jpg

Digital Government

“Open Data & Content”

Digital Government

Building a 21st Century Platform to Better Serve the American People



Introduction

"I WANT US TO ASK OURSELVES EVERY DAY, HOW ARE WE USING TECHNOLOGY TO MAKE A REAL DIFFERENCE IN PEOPLE'S LIVES."

– President Barack Obama

The Speed of Digital Information

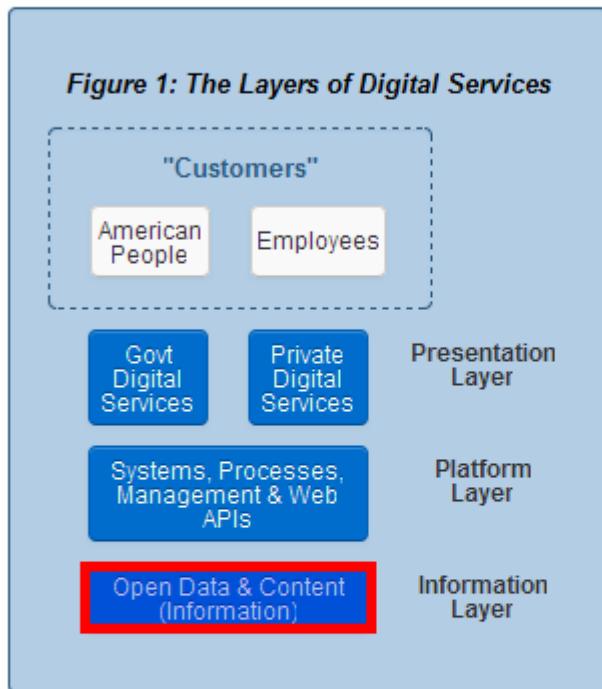
When a 5.9 earthquake hit near Richmond, Virginia on August 23rd, 2011, residents in New York City read about the quake on

Mission drives agencies, and the need to deliver better services to customers at a lower cost—whether an agency is supporting the warfighter overseas, a teacher seeking classroom resources or a family figuring out how to pay for college—is pushing every level of government to look for new solutions.

Today's amazing mix of cloud computing, ever-smarter mobile devices, and collaboration tools is changing the consumer landscape¹ and bleeding into government as both an opportunity and a challenge. New expectations require the Federal Government to be ready to deliver and receive digital information² and

<http://www.whitehouse.gov/sites/default/files/omb/egov/digital-government/digital-government.html>

Conceptual Model



Before discussing how we will build a 21st century digital government, we must first establish a conceptual model that acknowledges the three “layers” of digital services (see [Figure 1](#)).

The **information layer** contains digital information. It includes structured information (e.g., the most common concept of “data”) such as census and employment data, plus unstructured information (e.g., content), such as fact sheets, press releases, and compliance guidance.¹⁴

The **platform layer** includes all the systems and processes used to manage this information. Examples include systems for content management, processes such as web API (Application Programming Interface)¹⁵ and application development, services that support mission critical IT functions such as human resources or financial management, as well as the hardware used to access information (e.g. mobile devices).

The **presentation layer** defines the manner in which information is organized and provided to customers. It represents the way the government and private sector deliver government information (e.g., data or content) digitally, whether through websites,¹⁶ mobile applications, or other modes of delivery.

These three layers separate information *creation* from information *presentation* – allowing us to create content and data once, and then use it in different ways. In effect, this model represents a fundamental shift from the way our government provides digital services today.

Strategy Principles

To drive this transformation, the strategy is built upon four overarching principles:

- An “**Information-Centric**” approach – Moves us from managing “documents” to managing discrete pieces of open data and content¹⁷ which can be tagged, shared, secured, mashed up and presented in the way that is most useful for the consumer of that information.
- A “**Shared Platform**” approach – Helps us work together, both within and across agencies, to reduce costs, streamline development, apply consistent standards, and ensure consistency in how we create and deliver information.

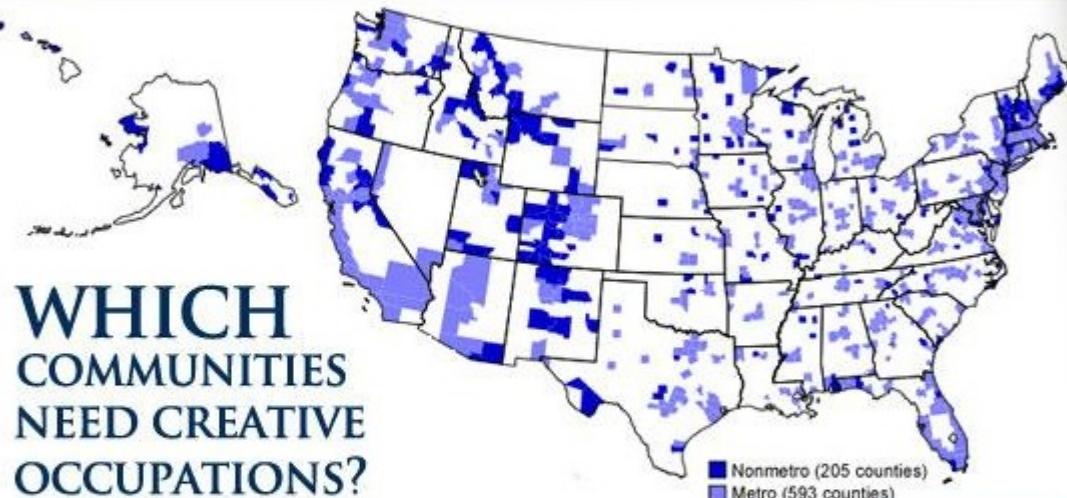
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Creative class counties, 2000



WHICH COMMUNITIES NEED CREATIVE OCCUPATIONS?

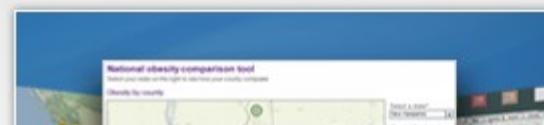
Creative class counties ranked in the top quarter in creative class measure.
Source: USDA, ERS using data from the U.S. Census Bureau.



Latest Datasets

- Uniform Soybean Tests, Southern States
- USDA Database for the Proanthocyanidin...
- Food Hubs
- World Production, Markets, and Trade...
- Crop Explorer
- International Agricultural Trade Reports
- Quarterly Agricultural Export Forecast
- Global Agricultural Trade System
- USDA Database for the Choline Content...
- Production, Supply, and Distribution...

DATA AND TOOLS



COMMUNITIES



OPEN GOVERNMENT



<http://data.gov/>

OPEN SOURCE Software

OPEN CONTENT Material

OPEN HARDWARE Product

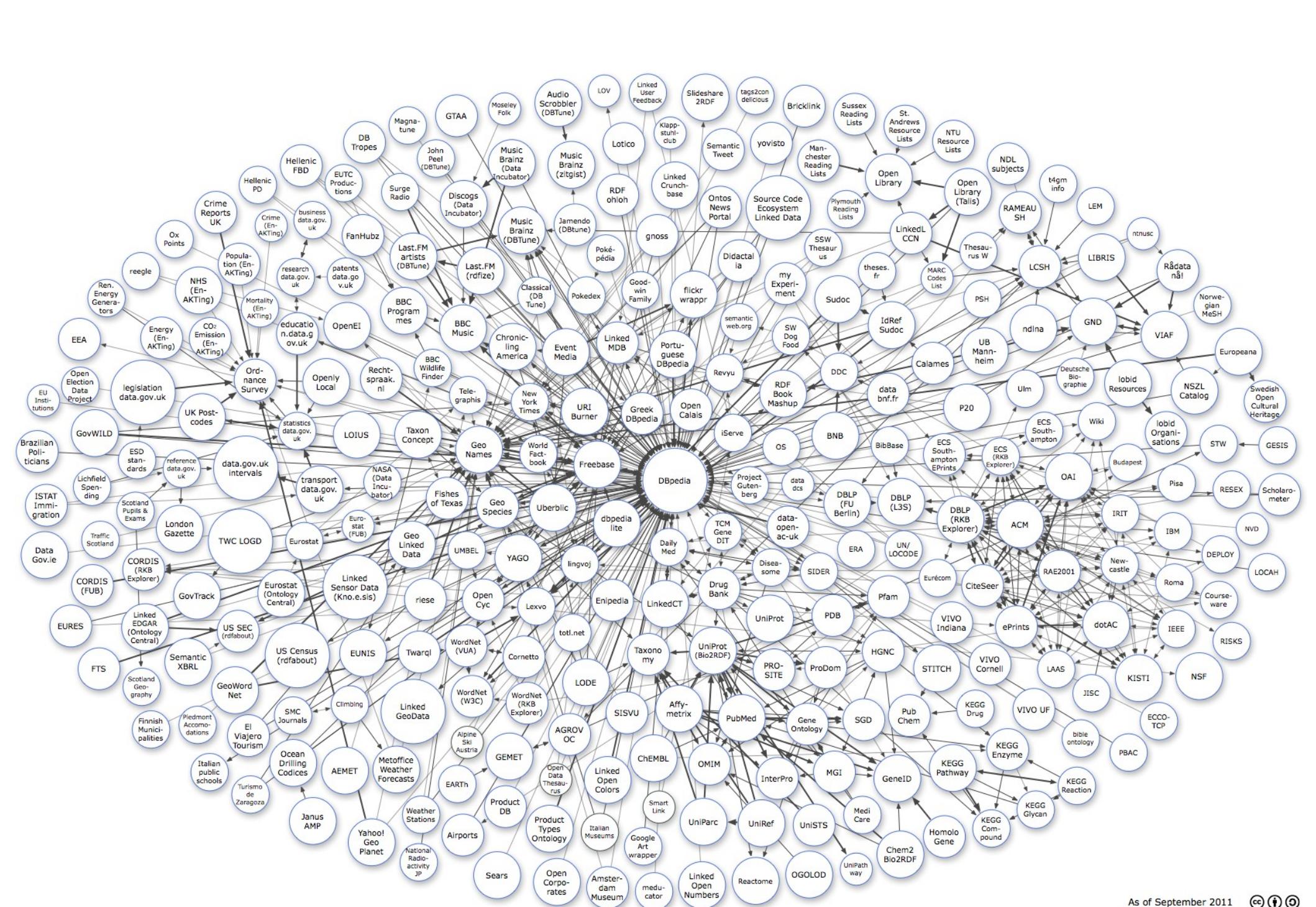
OPEN DATA Policy

Crucial Things

1. Bigger
2. Various
3. Vague

1. Bigger

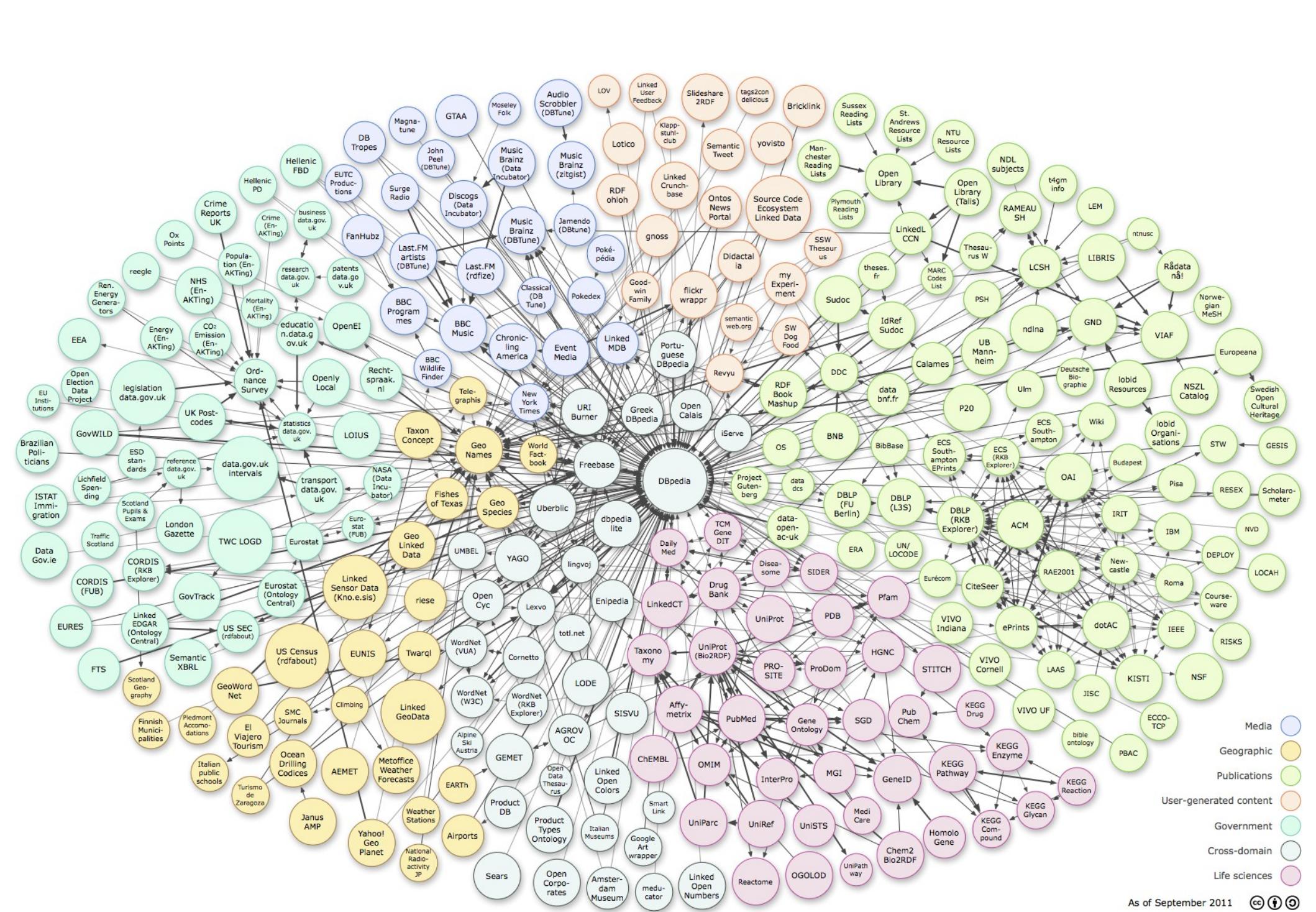
→ **Big Data** vs. Open Data



As of September 2011 CC BY-SA

2. Various

- Media
- Geographic
- Publications
- User-generated Content
- Government
- Cross-domain
- Life Sciences



2013/11/21 “Linking Open Data cloud diagram, by Richard Cyganiak and Anja Jentzsch. <http://lod-cloud.net/>”

3. Vague

→**All Rights Reserved** vs. **No Rights Deserved**

IP

Intellectual Property

Free and Open Source **SOFTWARE**

COPYRIGHT、PATENT

Open Content MATERIAL COPYRIGHT and its NEIGHBORING RIGHT

Open Hardware PRODUCT
COPYRIGHT、PATENT、CIRCUITLAYOUT
RIGHT、RIGHTS IN REM

Open Data POLICY

COPYRIGHT、DATABASE RIGHT

Trade-Related Aspects of Intellectual Property Rights (**TRIPS**), WTO

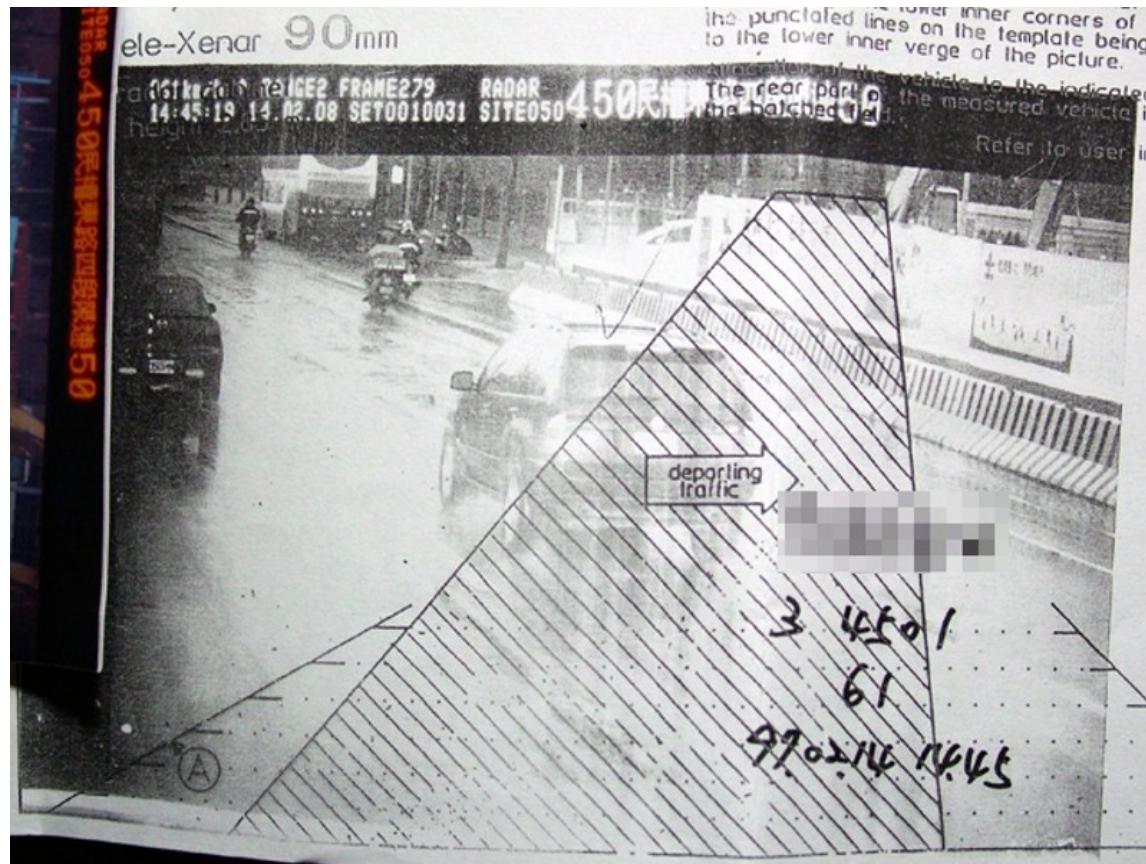
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http://www.wto.org/english/docs_e/legal_e/legal_e.htm#TRIPs



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What is Open Data ?

Transparency 、 Valued-add Tendency

What is Open Data ?

- 1、 The right to get access to the Data.
- 2、 The privilege of utilizing the Data.

Open Data:

1. License – utilization granting
2. Standardizing - linking the dataset to another dataset
3. Policy – how to bring in industry innovation and
livelihood convenience via Data utilization as many as
possible

3. Open Data in General Public Licensing way



2008 © Horia Varlan, released under CC-BY-unported-2.0 at: http://farm5.staticflickr.com/4011/4268974682_3e8ca96d12_o.jpg

Open Data Licensing and Releasing Policies

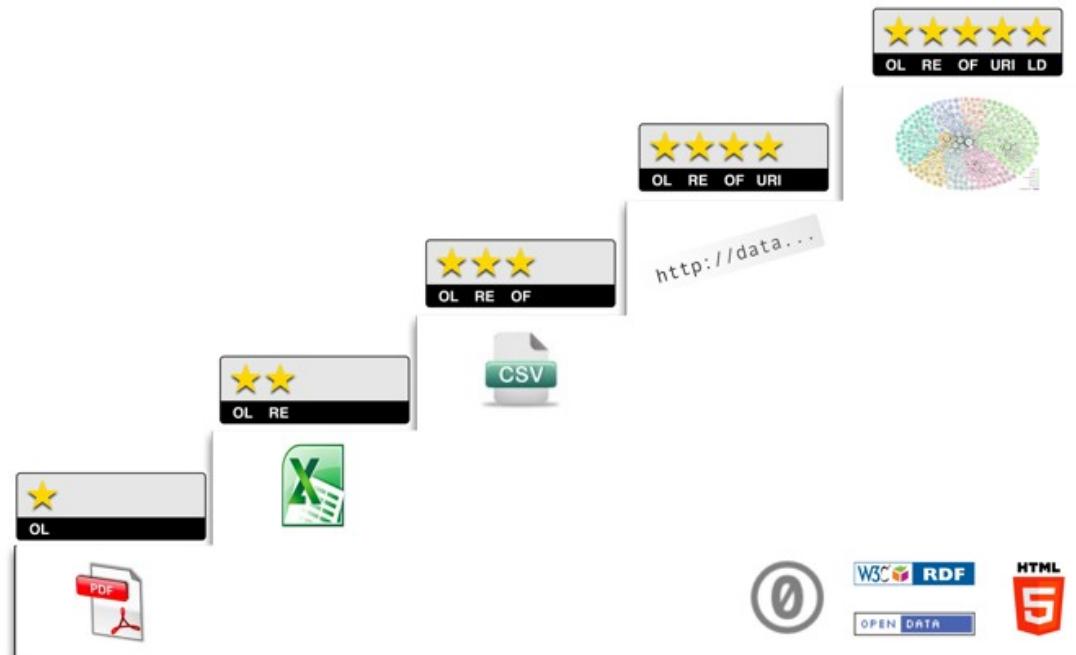
1. Use non-proprietary and interoperable formats
2. No restriction on access people and grant area
3. No royalty on Data should be charged in further redistribution
4. The granted Data can't be revoked
5. No warranties / Correctness timely updating obligation only
6. The status to use, research, value-add, and redistribute the Data

1. Use non-proprietary and interoperable formats

[By Example](#) | [Costs & Benefits](#) | [See Also](#)

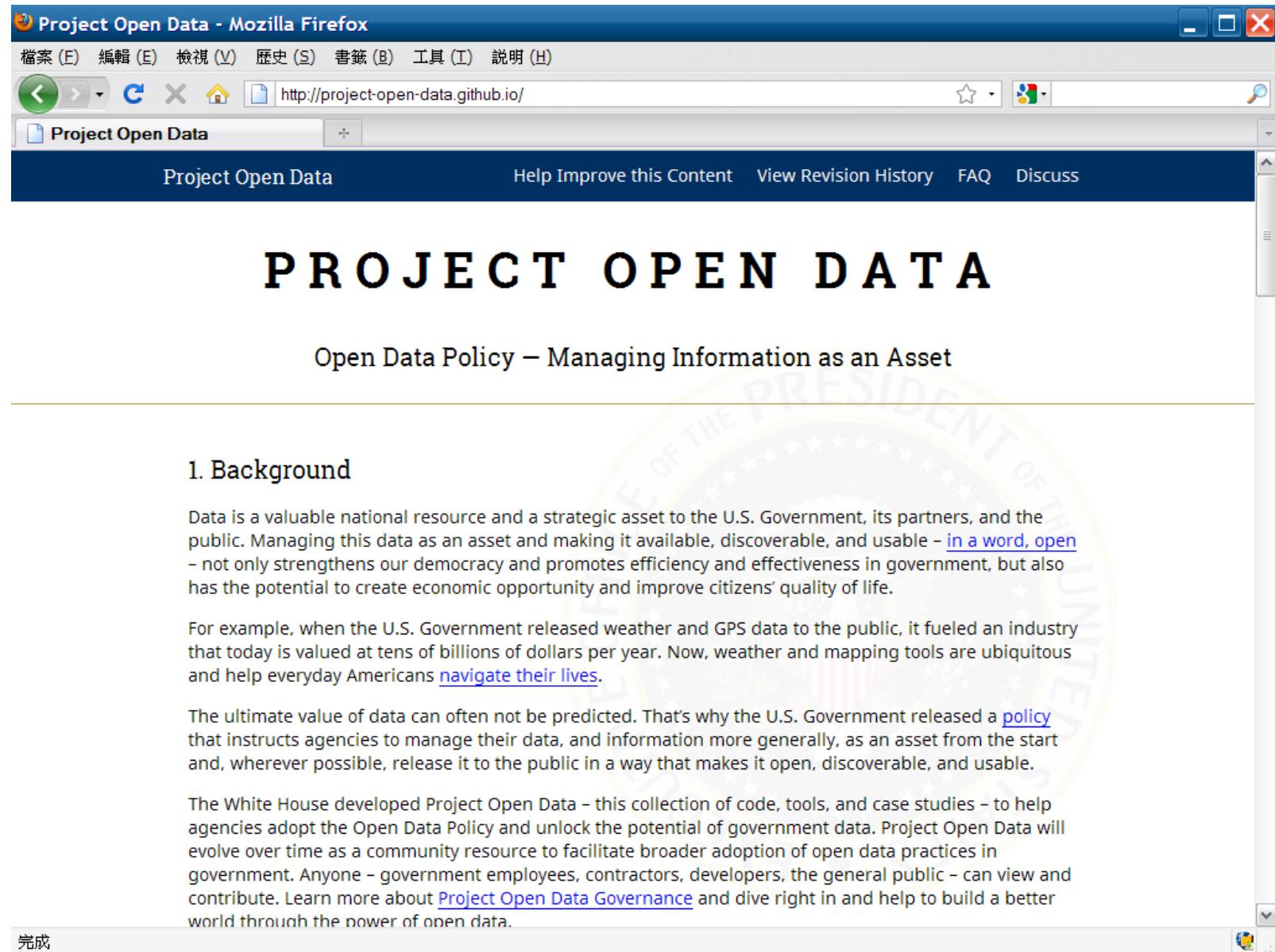
5 ★ Open Data

Tim Berners-Lee, the inventor of the Web and Linked Data initiator, suggested a 5 star deployment scheme for Open Data. Here, we give examples for each step of the stars and explain costs and benefits that come along with it.



<http://5stardata.info/>

2. No restriction on access people and grant area



The screenshot shows a Mozilla Firefox browser window displaying the Project Open Data website at <http://project-open-data.github.io/>. The page title is "PROJECT OPEN DATA" and the subtitle is "Open Data Policy – Managing Information as an Asset". The content includes sections on Background, Policy, and Governance.

1. Background

Data is a valuable national resource and a strategic asset to the U.S. Government, its partners, and the public. Managing this data as an asset and making it available, discoverable, and usable – [In a word, open](#) – not only strengthens our democracy and promotes efficiency and effectiveness in government, but also has the potential to create economic opportunity and improve citizens' quality of life.

For example, when the U.S. Government released weather and GPS data to the public, it fueled an industry that today is valued at tens of billions of dollars per year. Now, weather and mapping tools are ubiquitous and help everyday Americans [navigate their lives](#).

The ultimate value of data can often not be predicted. That's why the U.S. Government released a [policy](#) that instructs agencies to manage their data, and information more generally, as an asset from the start and, wherever possible, release it to the public in a way that makes it open, discoverable, and usable.

The White House developed Project Open Data – this collection of code, tools, and case studies – to help agencies adopt the Open Data Policy and unlock the potential of government data. Project Open Data will evolve over time as a community resource to facilitate broader adoption of open data practices in government. Anyone – government employees, contractors, developers, the general public – can view and contribute. Learn more about [Project Open Data Governance](#) and dive right in and help to build a better world through the power of open data.

3. No royalty on Data should be charged in further redistribution

Licensing Subject
Licensing Period
Licensing Area



UK Government Licensing Framework | The National Archives - Mozilla Firefox

檔案 (E) 編輯 (E) 檢視 (V) 歷史 (S) 書籤 (B) 工具 (I) 說明 (H)

UK Government Licensing Fra... http://www.nationalarchives.gov.uk/information-management/uk-gov-licensing-framework

The National Archives

You are here: Home > Information management > UK Government Licensing Framework

UK Government Licensing Framework

 UK Government Licensing Framework
for public sector information

The UK Government Licensing Framework (UKGLF) provides a policy and legal overview of the arrangements for licensing the use and re-use of public sector information, both in central government and the wider public sector.

It sets out best practice, standardises the licensing principles for government information, and recommends the Open Government Licence (OGL) as the default licence for public sector information.

The UK Government Licensing Framework and Open Government Licence form part of the Government's drive to open up access to publicly held information, promoting transparency and enabling wider economic and social gain.

The Framework ▶ Find out about the UK Government

Open Government Licence ▶ The Open Government Licence is a simple

Documents

- Re-Use of Public Sector Information Regulations 2005 (PDF, 0.00 Mb) ▶
- Crown copyright guidance (PDF, 0.10 Mb) ▶
- PSI Guidance (PDF, 0.12 Mb) ▶
- The Re-Use of Public Sector Information Regulations. A Guide to the Regulations and Best Practice (PDF, 0.06 Mb) ▶

Glossary

- Terms included in the UK Government Licensing Framework and Open Government Licence explained. ▶

UK Government Licensing Framework | The National Archives - Mozilla Firefox

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A //www.nationalarchives.gov.uk/information-management/uk-gov-licensing-framework.htm

UK Government Licensing Fra...

The UK Government Licensing Framework and Open Government Licence form part of the Government's drive to open up access to publicly held information, promoting transparency and enabling wider economic and social gain.

| | |
|--|---|
| The Framework ▶ Find out about the UK Government Licensing Framework, which provides an overview for licensing the re-use of public sector information both in central government and the wider public sector. | Open Government Licence ▶ The Open Government Licence is a simple set of terms and conditions to enable the free re-use of government and public sector information. Read more. |
| What the Open Government Licence covers ▶ Discover the scope of the Open Government Licence (OGL), with examples of the types of information to which it applies and can be applied. | Non-Commercial Government Licence ▶ A simple set of terms and conditions to enable the free re-use of government and public sector information for non-commercial purposes. |
| Charged Licence ▶ A standard licence for use where it is appropriate to charge for the re-use of public sector information. | Guidance and FAQs ▶ Read our guidance and instructions for central government and the wider public sector on implementing the Open Government Licence (OGL). |

The National Archives

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Take and reuse

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Podcasts and videos
Take

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完成

4. The granted Data can't be revoked

Irrevocable

5. No warranties / Correctness timely updating obligation only

Timely update on
Correctness

5. No warranties / Correctness timely updating obligation only

Timely update on
Correctness

6. The status to use, research, value-add, and redistribute the Data

Use Research

Value-add Redistribute



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http://eol.taibif.tw/



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臺灣生命大百科 | Taiwan Encyclopedia of Life



臺灣生命大百科

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臺灣維管束植物簡誌



東華大學校園生物



臺灣兩棲動物
「野外調查手冊」

臺灣物種圖庫

台灣物種圖庫邀請各位生態攝影高手，一起來建構更完整的台灣生態圖庫！

病毒

細菌

古菌界

原生生物界

原藻界

真菌界

植物界

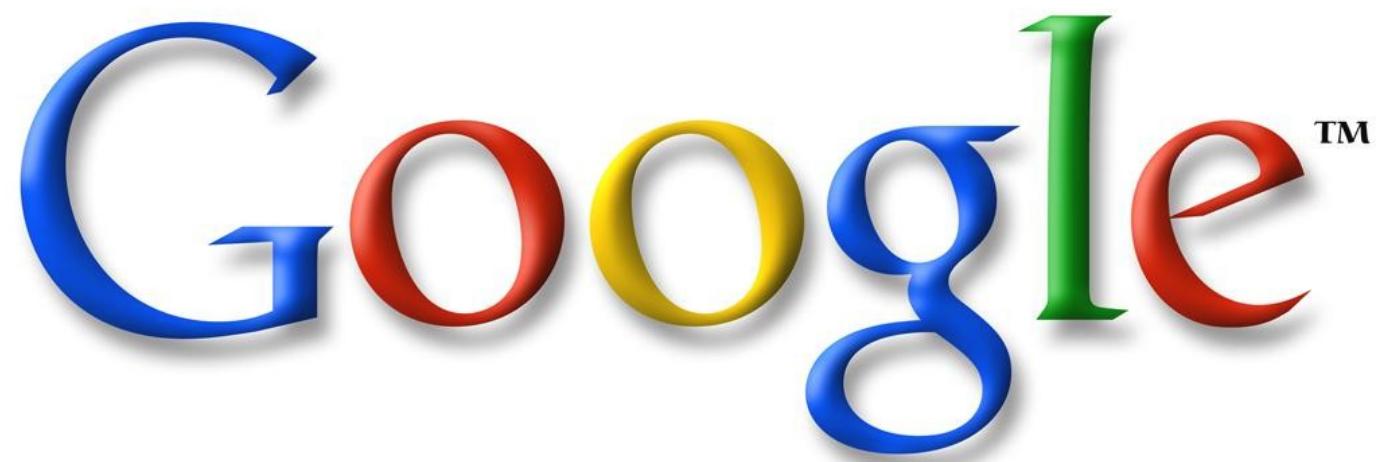
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Ecosystem

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