

为创新推动开放型技术的使用和 公共数据分享以及全球创新案例

Promote Open Technologies and Public Data Sharing for
Innovations and Case Studies of Global Innovations

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- 推动有利于创新的开放型技术
- 推动公众数据的开放和利用
- 全球创新案例演示



Google
Interactive
Media Ads

Google's
DoubleClick
for
Publishers

Google's
DoubleClick
for
Advertisers

100



University

■ 谷歌开发技术产品和平台的愿景

Vision of Google technologies and platforms

- 为全球开发者们和企业提供推动互联网应用创新的技术和平台

Provide platforms and technologies for developers and enterprises around the world, to promote Internet applications innovations

- 推动开放型技术的使用和公众数据的公开分享

Promoting the use of Open Technologies and sharing of Public Data

- 发挥开发者社区的创新能力来推动创新、创业、为本地的就业和经济发展作贡献

Leveraging the power of developer innovations, to promote innovations and startups, to contribute to the local economy

■ 什么是开放型技术？ What is Open Technology

1. 技术的标准由国际标准组织制定、整个业界参与

The standards of the technology are set by global standards organizations, with the participation of the industry

2. 技术不受某一家公司的完全垄断、控制、和制约

The technology is not monopolized by one single company

3. 业界的各个企业和开发者群体能够参与或影响标准的制定和技术发展的规划

Industry and developers can participate and influence the technology development and its standards

4. 技术平台能够适当或全部进行代码的开源，使得整个业界能够分享技术开发成果、有利于科研和学术界进一步进行研发和创新

The technology or platform should be partially or entirely open sourced

5. 技术平台产品的供应商必须为应用开发的接口(API)提供公开的API规范文件

The vendor of the technology must provide open documentation of the application APIs

谷歌在推动开放型技术上的努力

- **谷歌产品开发致力于使用开放型技术**

Google's product development practices promoting open technologies

- **国际标准：**谷歌推动的HTML5, WebGL等技术标准都是由万维网组织W3C等参与制定

Technologies promoted by Google such as HTML5, WebGL, etc., whose standards are set by W3C

- **业界参与和影响技术的规划和发展方向：**Android移动平台和Open Handset Alliance (OHA) Android mobile platform development is influenced and participated by OHA

- **与业界分享技术和创新的成果：**Android, Chrome等产品进行源代码的开源，回馈开源社区 Android, Chrome are open sourced, providing the feedback to developer communities

- **API规范文件公开：**谷歌所有的开发者产品全部有公开的API规范文档在谷歌的开发者网站上 developers.google.com
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为什么应该使用开放型技术？



- **开放型技术是推动创新的动力**

Open technologies are the key force in promoting innovations

- **开放型技术能够得到国际的认可，帮助中国的独特技术和新型标准在未来走向世界**

Open technologies can be recognized by international standard bodies, and help bring new technologies and innovations to the world

- **开放型技术的采用可以避免少数公司进行恶性技术垄断、扼杀业界的公平竞争和创新**

Open technologies can help avoid the unhealthy monopoly by a few companies that can kill open competition and innovations

- **开放型技术的推广有利于竞争和创新，让最好的技术得到市场的尽快认可，为广大消费者带来益处**

Use of open technologies can benefit open competition, let the best technologies to win and be recognized by the market

- **中国互联网应用的发展应该推动和采用开放型技术**

--- China's Internet development should promote use of open technologies

- **什么是公共(或公众)数据** What is Public Data
 - **社会调查搜集来的数据、由税收支付的项目得到的数据、政府管理数据、公众设备信息数据等等**
Data from public surveys, projects funded by tax dollars, government data, and from public data gathering devices, etc.
 - **通常政府机构掌握着这些数据** Data Government typically has the possession and control of these data
- **部分不牵涉到隐私的公共数据是可以公开的**
Some of these public data that has no privacy concerns can be opened
 - **气象、人口、环保、自然灾害、公交状况等数据**
Weather, demographic, environment, natural disaster, public transportation, etc., are some of the examples

■ 公开部分公共数据的益处

The benefits of opening up some of the public data

■ 为开发者们提供大量的开发的机会

It can provide enormous opportunities for developers to develop innovative solutions and services

■ 能够大力促进很多新型的、富有创新的应用开发，极大地提高百姓大众的便利和生活质量

It can promote the development of many innovative applications, greatly improving the convenience of citizen's lives and living standards

■ 帮助政府决策机构提高管理效益和效率

A lot of innovative solutions can often be used by government agencies, helping improving governing effectiveness and efficiency

公共数据分享的手段

Sharing methodologies Google

- **如何进行数据公开** How can data be opened and shared
 - 制定数据标准、包括数据的结构、格式、属性等
Define data standards, including data structure, format, properties
 - 通过应用开发的开放型API接口向业界公开
Sharing data through open APIs that the industry and developers can use
- **催化创新的关键**
 - 让数据标准容许各种数据的“混搭”，可以让开发将各种不同的数据源在应用里进行整合
The data standards should support “Mash Up”, which enables developers to integrate data from many different sources
 - 这种Mash up往往是促进各种创新的有力的催化剂
The mash up ability is often a key ingredients for innovations

■ 与很多国际标准及公开数据进行整合

There are many international standards and global public data that can be used in such mash up

- 国际组织、联合国等有很多公开数据可以被在 Mash Up 中利用进行创新，例如病例信息、国际海洋船舶位置信息等

International organizations, UN, etc., have a lot of open public data and standards that can be used in mash up for innovations, such as UN health data, AIS global ship positioning data, etc.

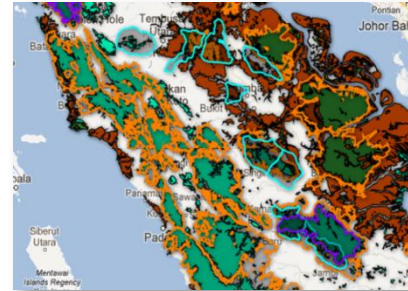
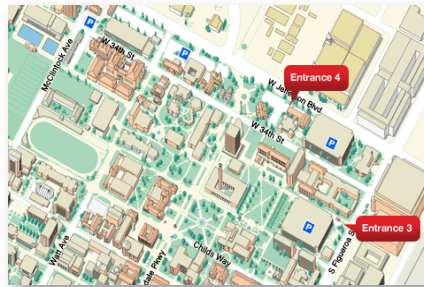
- 与这些数据进行混搭可以延伸出很多新的应用开发的创新

Mashing up with these data can create many new innovations in applications development

利用公共数据进行创新的案例



- 把公众数据在谷歌地图平台上进行创新的例子



我们应该做什么？

What should we do?



- **推动开放型技术的使用和公共数据的分享**

Promote the use of open Technologies in IT/CS education, promote the use of public data for innovations in application development

- **推动政府部门、业界、学术界进行数据公开的合作与协作**

Promote the collaboration between government agencies, industries, and academia for the opening up and use of public data

- **利用先进的技术和平台、诸如谷歌地图、HTML5渲染技术等等进行数据的可视化**

Leverage leading technologies and platforms, such as Google Maps, open technologies such as HTML5, for the visualization of data

- **如何制订有利于创新的公共数据的公开标准、格式等等，非常值得学术界的研究**

How to set up the public data sharing standards and formats that beneficial to innovations, is something worthy of further research

- **如何保证数据的可共享性、安全性、及时性、可信度等课题**

How to ensure data share-ability security, timely updating, integrity, etc., are all challenges and worthy of efforts

- **如何推动各种来自不同行业、不同数据源的数据整合**

How to promote the data integration and mash up ability among many different data sources, especially those from different industries

谷歌的开发技术：开放、开源、创新！



- 推广各种基于开源代码的开发技术和平台
- 推动互联网应用、移动应用的创新和发展
- 利用谷歌的技术平台进行创新和创业、贡献本地经济发展和社会建设
- 利用谷歌平台把中国开发者的创新带向世界、赢利于全球市场

让我们一起合作、双赢！

谢谢!

Thank You!

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- 更多的国际上利用公共数据进行各种开发创新以及政府公开公共数据的参考链接：
 - 美国政府的很多公开的公众数据[网页](#)
 - 非营利组织The Center for Investigative Reporting (CIR)的各种调查报告[网页](#)
 - 非营利组织Sunlight Foundation的[网页](#)以及各种信息[工具](#)
 - 利用海洋船只运行历史的公众数据所开发的[海洋运行历史图](#)
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