



中国科学技术大学

大连理工大学软件学院 物联网专业交流会

G+, Q+, IoT+.

网络工程系 孙伟峰





内容摘要

- 个人简介
- Google plus - G+
- QQ plus - Q+
- 物联网 plus - IoT+
- ? + US





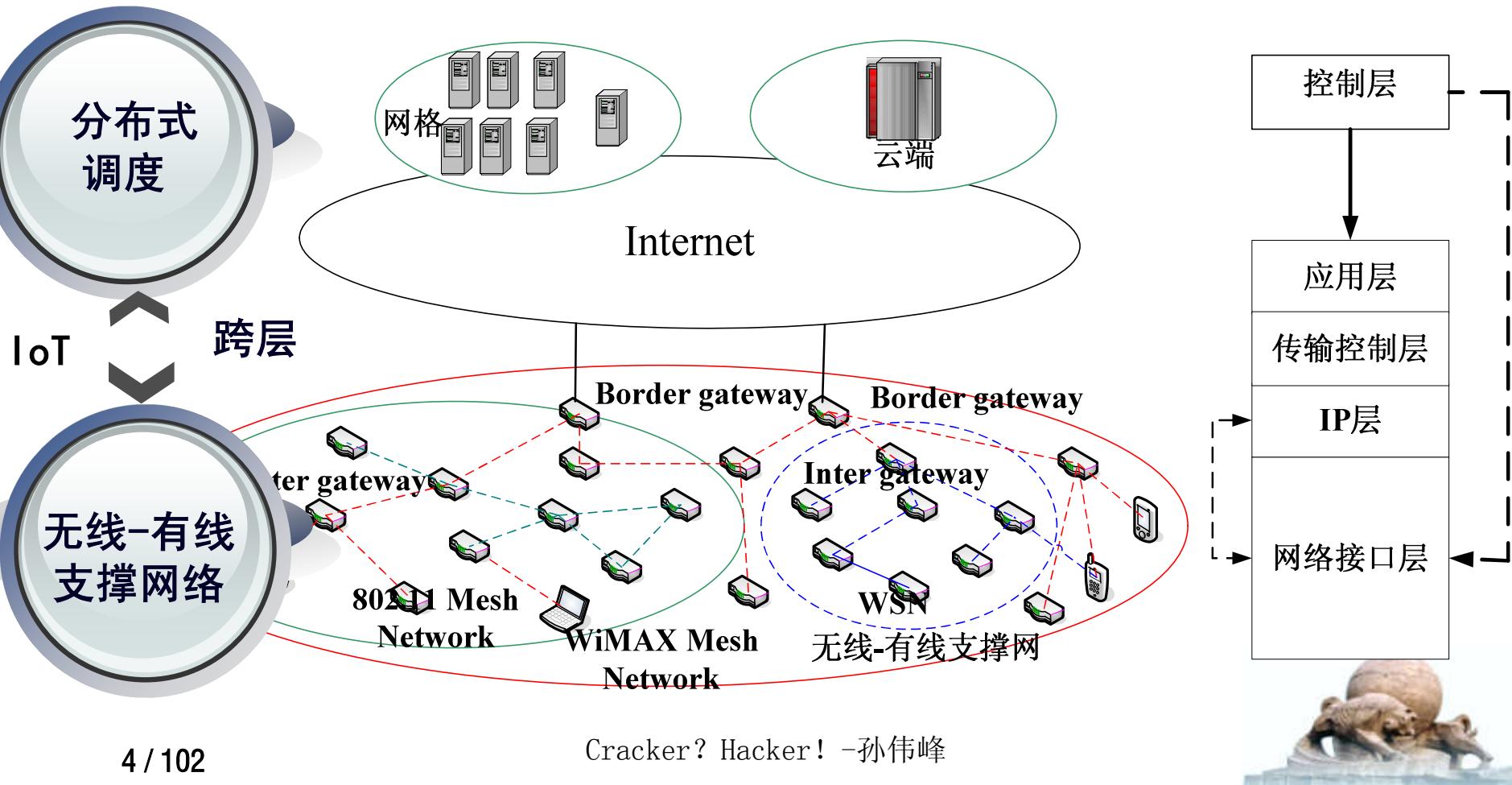
- 2012年12月至今
 - 大连理工大学软件学院 副教授
- 2007年7月至 2012年12月
 - 大连理工大学软件学院 讲师
- 1997－2007
 - 中国科学技术大学 计算机科学与技术系， 获得学士及博士学位
- 研究方向
 - 无线网络、网格和云计算、智能算法





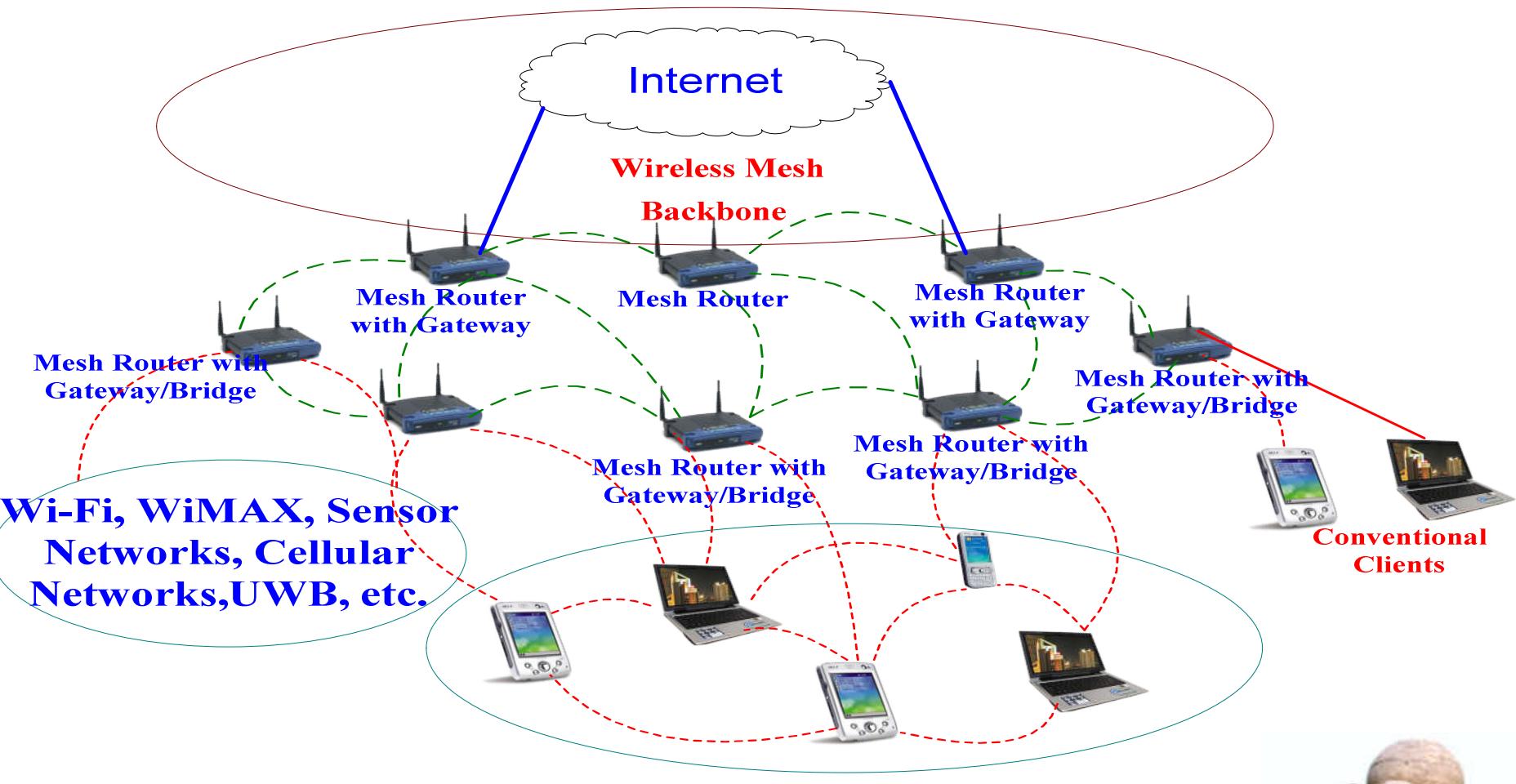
科研-底层网络+分布式调度(应用为IoT)

- 无线-有线支撑网络，智能的分布式调度



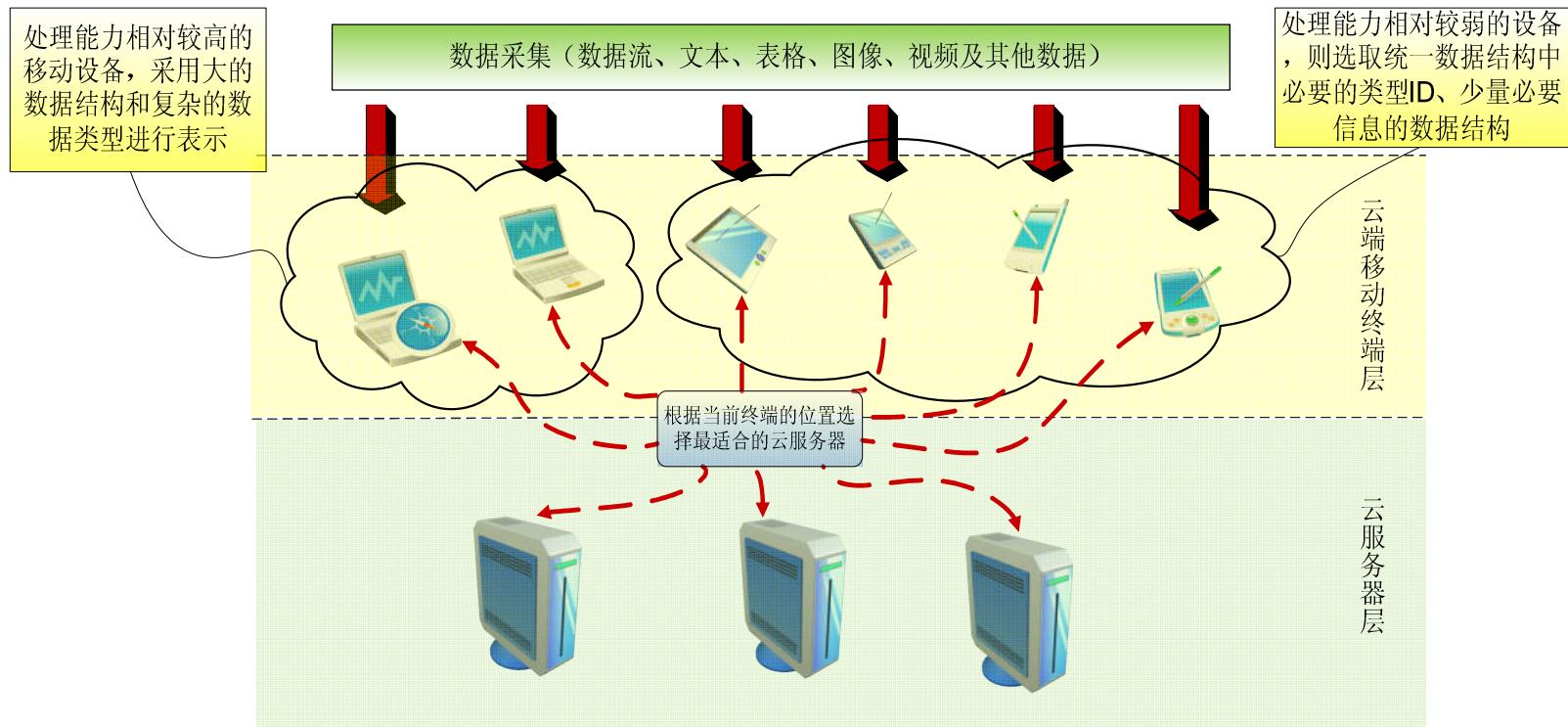


无线mesh网络的高效互连和动态信道分配方案研究



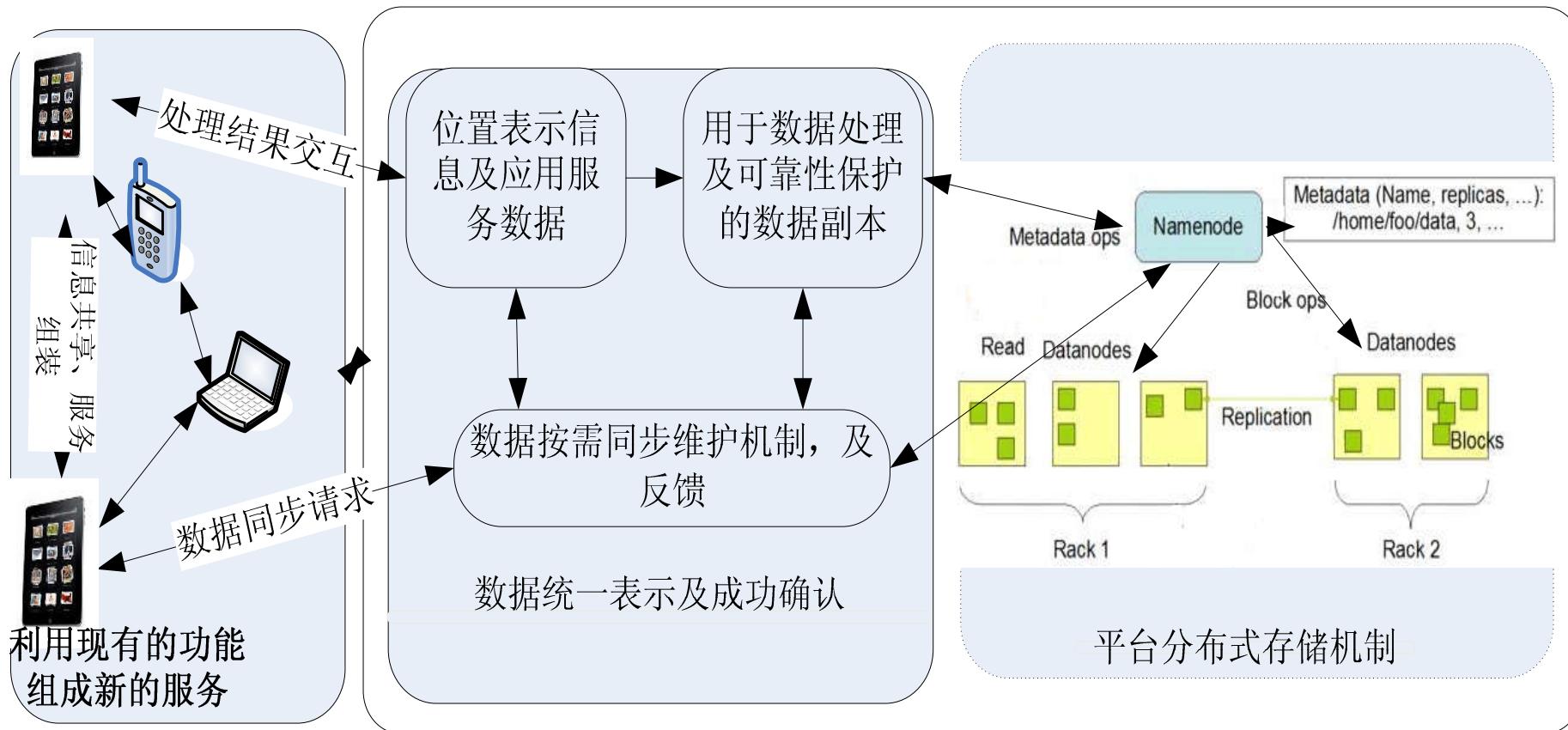


云端融合的推荐方案研究





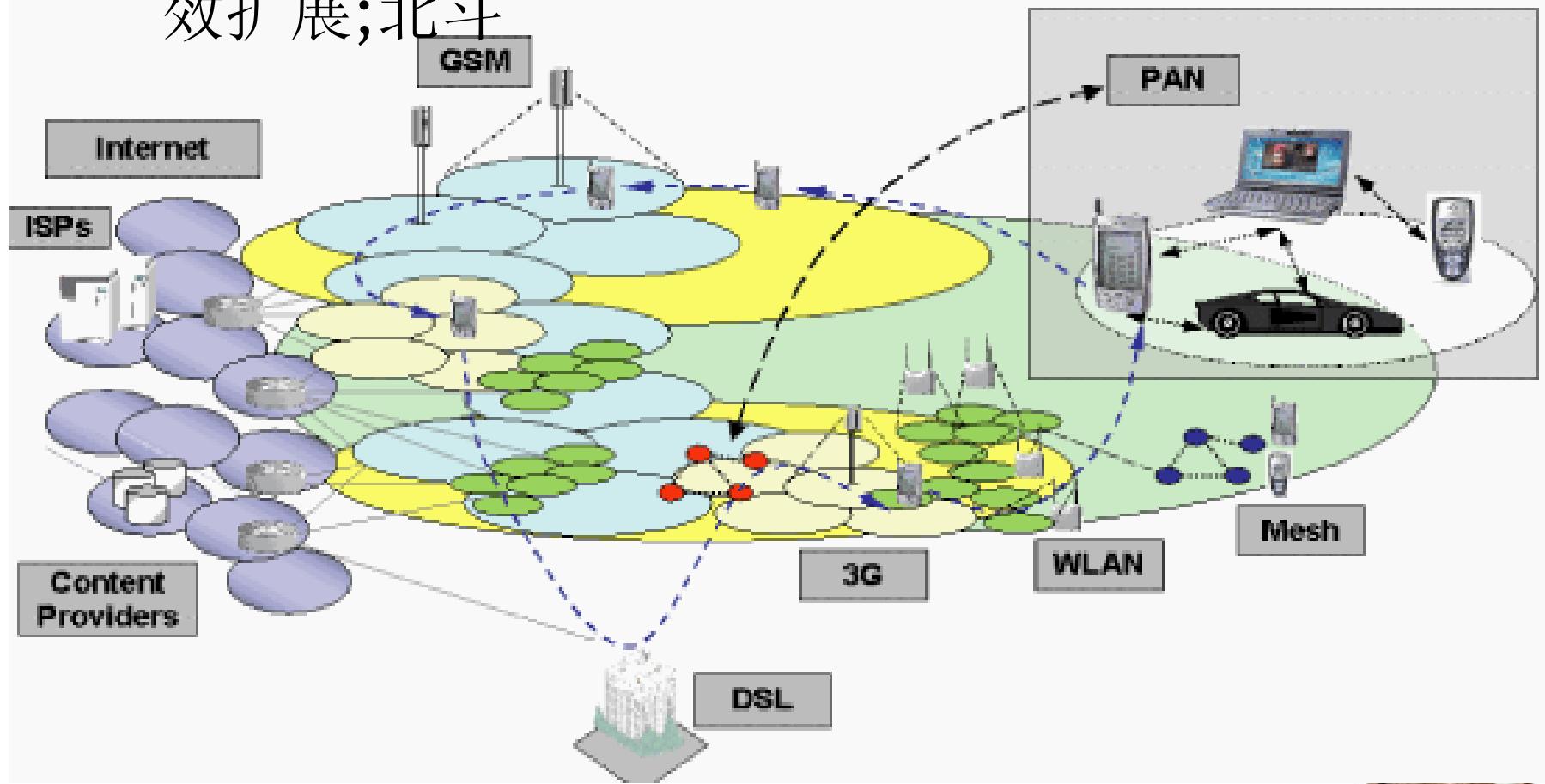
服务组装及服务化





无线-有线结合网络

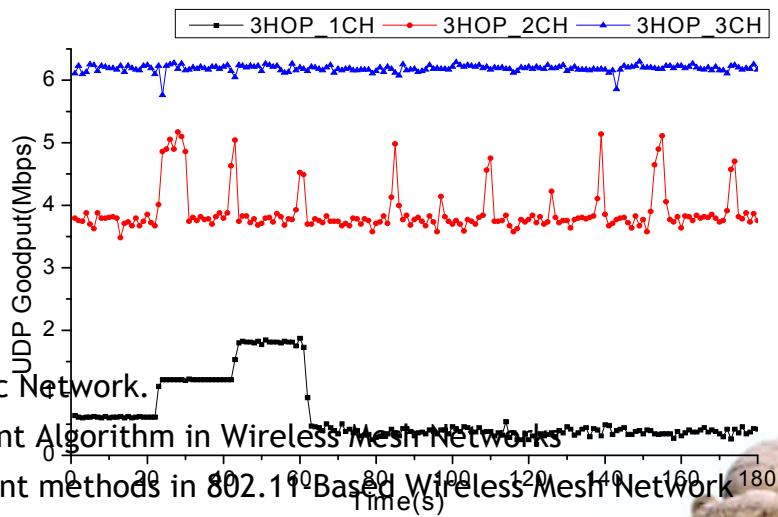
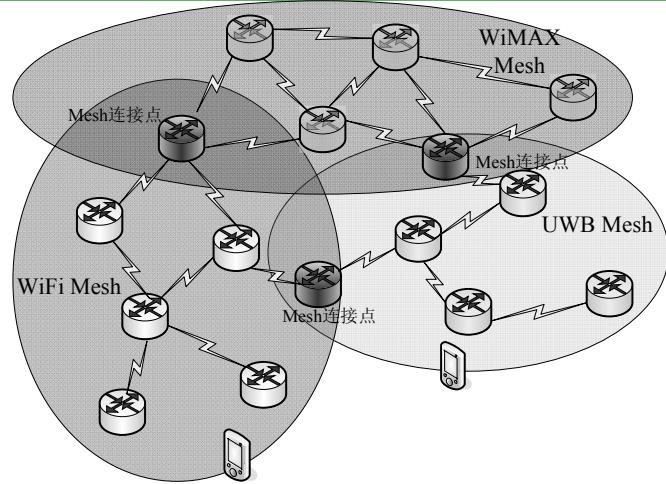
- 无线网络同有线网络互连，成为Internet的有效扩展；北斗





无线-有线支撑网络

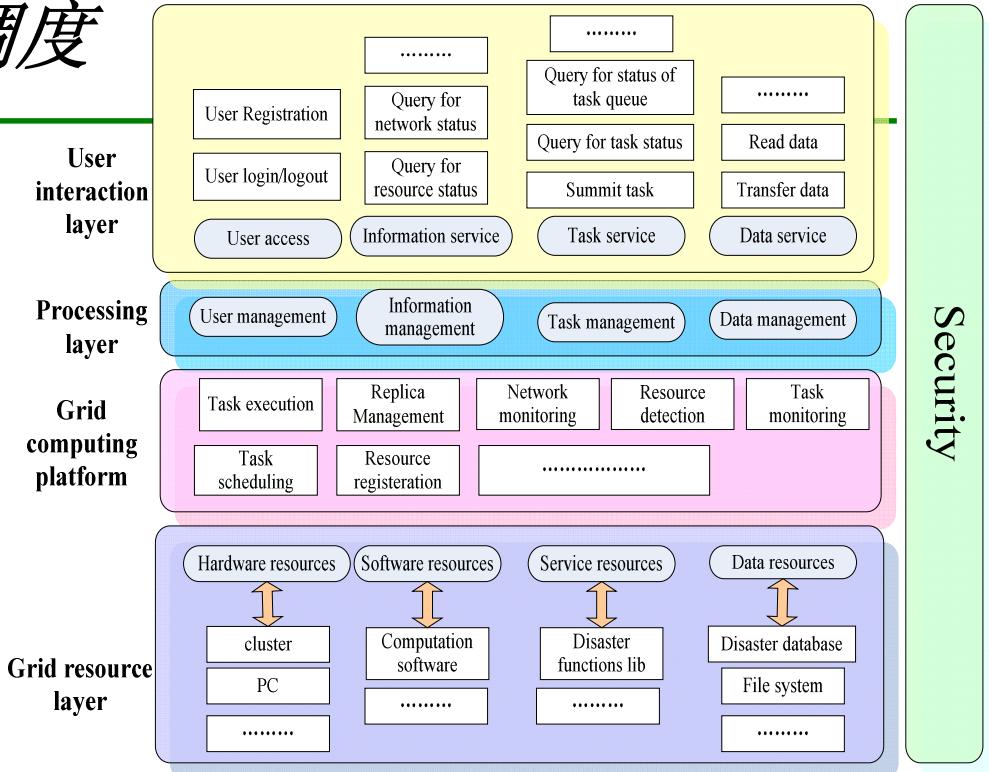
- 无线mesh网络
 - 无线多跳网络
 - Last-mile接入
 - 异构网络互连
 - VANET、WSN、WiFi等
 - 提高性能
 - 动态路由优化
 - 信道分配
 - 智能算法
 - 跨层调度
- ODAM-C:An Improved Algorithm for Vehicle Ad Hoc Network.
- R-CA: A Routing-based Dynamic Channel Assignment Algorithm in Wireless Mesh Networks
- Research on Interference-based Channel Assignment methods in 802.11-Based Wireless Mesh Network





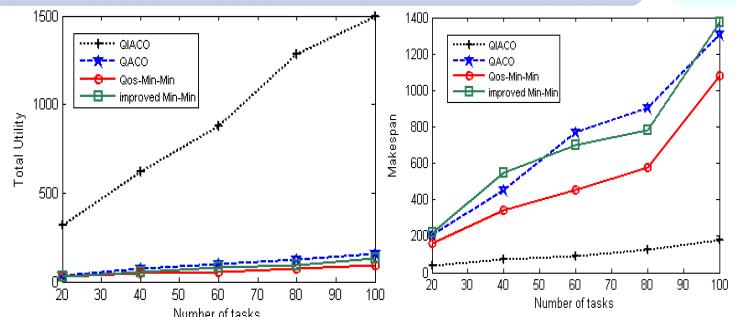
网格/云计算调度

- 分布式环境
 - 计算
 - 数据
 - 服务
- 高性能、安全
 - 智能算法
 - 博弈、拍卖
 - 推荐



- 一种多QoS约束网格任务调度算法
- 基于非完全信息博弈的网格资源分配模型
- An improved personalized filtering recommendation algorithm
- A Low-level Security Solving Method in Grid. Proceedings
- 一种基于连接模式的p2p流检测算法
- 一种新的非集中副本一致性服务模型
- A Mediated RSA-based End Entity Certificates Revocation Mechanism with Secure Concerned in Grid

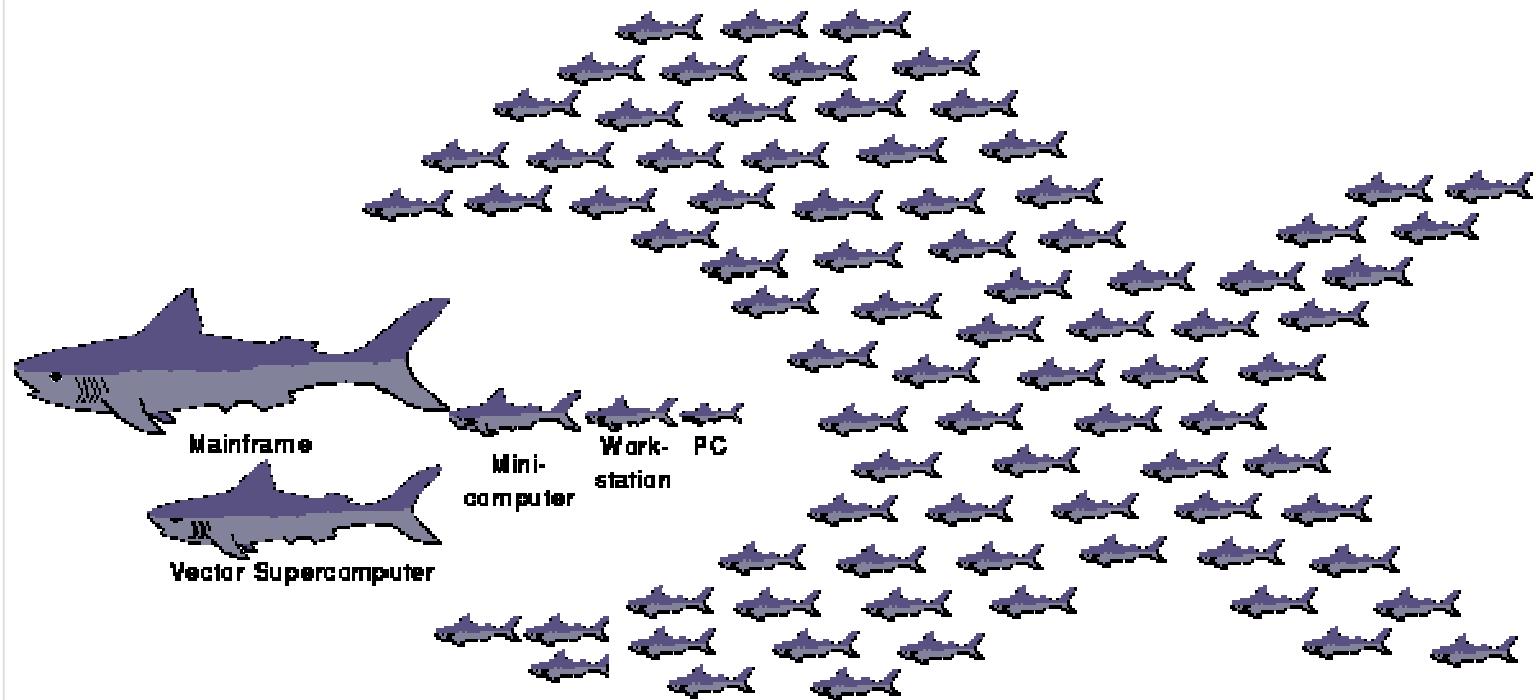
Cracker? Hacker! -孙伟峰





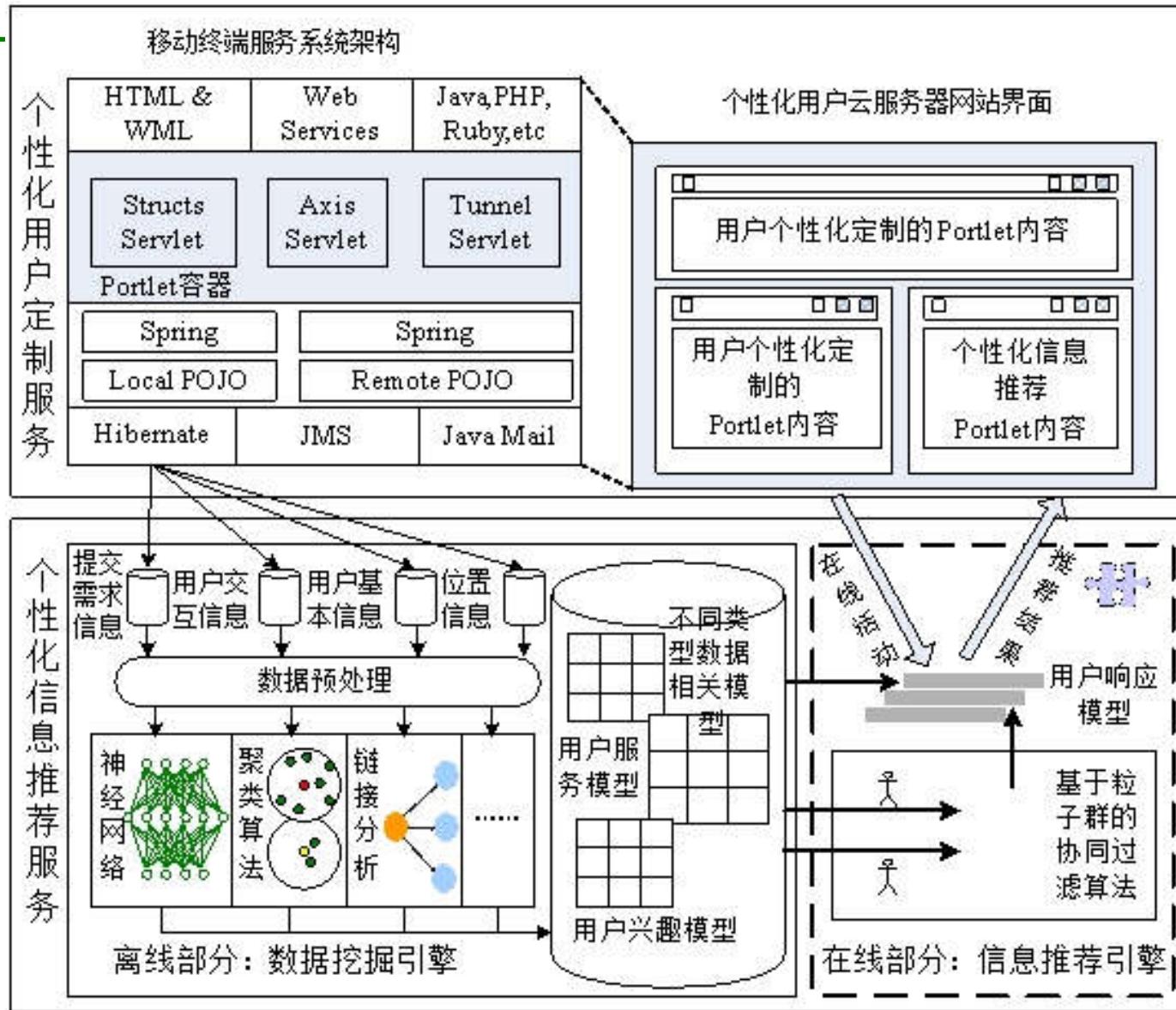
分布式计算

- 大量性能低的计算机通过虚拟化和协同技术实现超级计算





智能推荐





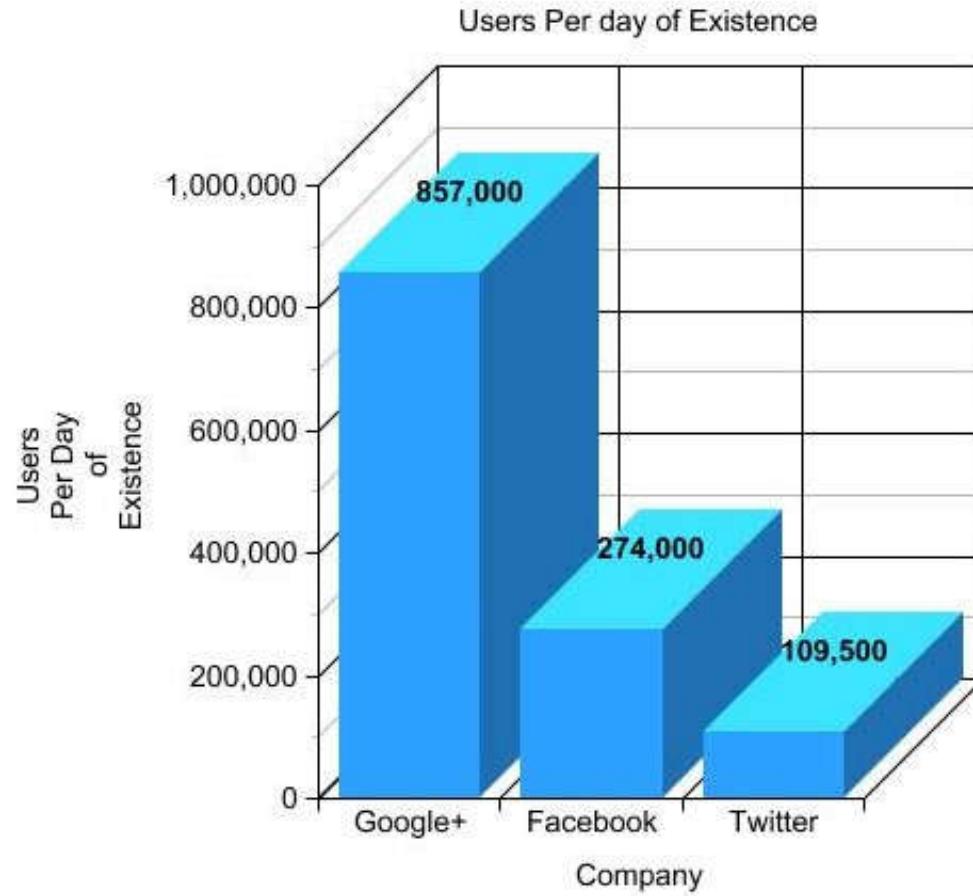
内容摘要

- 个人简介
- Google plus - G+
- QQ plus - Q+
- 物联网 plus - IoT+
- ? + US





Google+ 增长情况

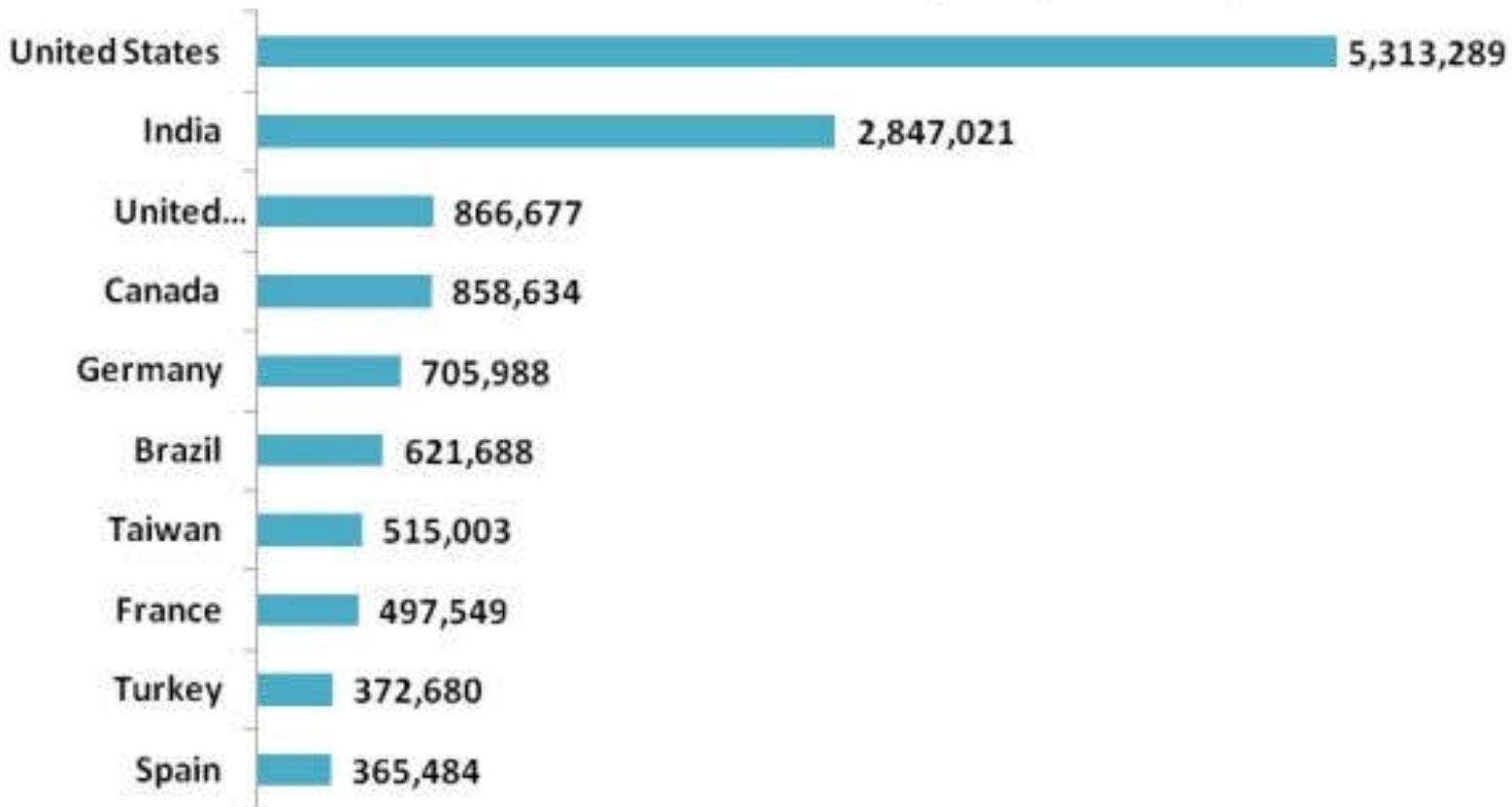




Google+ 增长情况

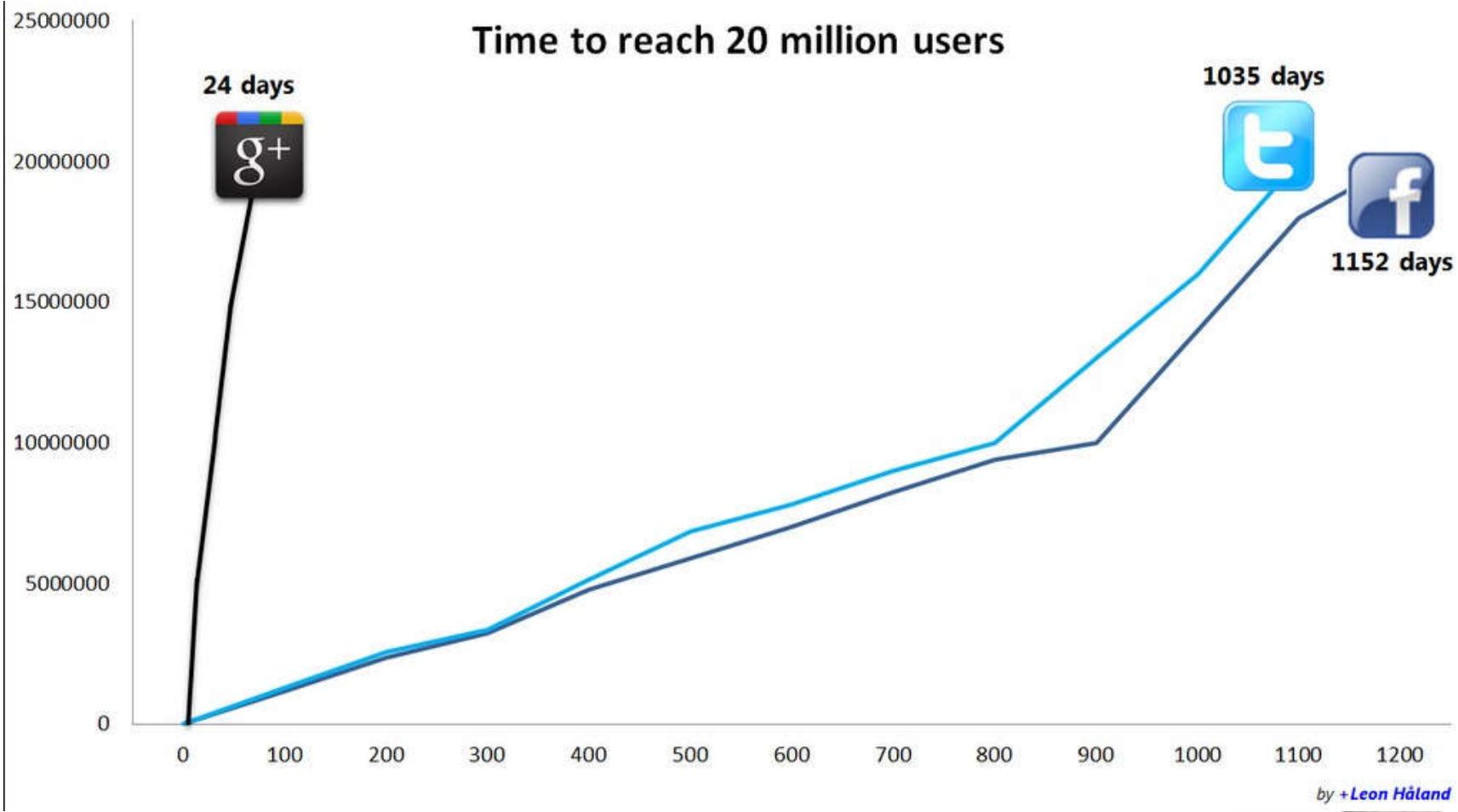
Google+ Top 10 Countries by Cumulative Unique Visitors

Source: comScore, Worldwide, Home & Work Computers (excl. Mobile)





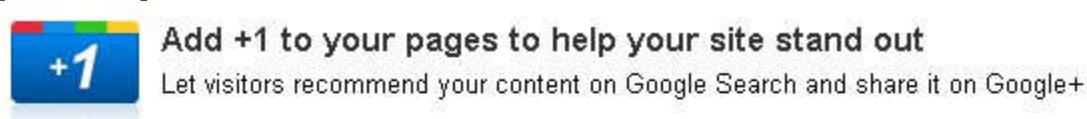
Google + 增长情况





Google +1 按钮

- <http://www.google.com/webmasters/+1/button>



Customize your +1 button and [+Snippet](#)

+1 button preview

Size: Small (15px) Standard (24px) Medium (20px) Tall (60px)

Annotation:

Language: English (US) - English (US)





Google +1 按钮

Chrome Extension Translates Google+ Posts & Comments

12 hours ago by Jennifer Van Grove
3

1,704 Like Send 78 people like this. Be the first of your friends.

M Share 72 +1

If communication barriers on Google+ got you down, never fear. Google has released a tool to ensure that updates from its international user base can be easily translated.

Wang Feng publicly +1'd this

Chrome Extension Translates Google+ Posts & Comments

QFA Need help deciphering what a Google+ comment in a foreign language means? Now, there's a browser extension to help.

Public Extended circles Google
SEO Social Media Marketing Fanny
Friends Your circles + Add more people

Share Also email 75 people not yet using Google+



y to understand posts written in other
e could do something about that," writes Google
n an update on Google+. "Once you've installed
ext to posts and comments. Click the links to

t in translation, but it will certainly make it easier





Google +1 按钮

Google+

Find people



[Send an email](#)

In keso's circles (1718)



[View all »](#)

Have keso in circles (19012)



[View all »](#)

keso me

Editor in Chief of Donews.com. Internet Consultant.

You are in keso's circles too

2 circles



Posts About Photos +1's Buzz

keso me's +1's are the things they like, agree with, or want to recommend.

豆瓣
www.douban.com
提供图书、电影、音乐唱片的推荐、评论和价格比较，以及城市独特的文化生活。

keso的微博_腾讯微博
t.qq.com
keso, 真名洪波, 中国的头号Blogger。博客:
<http://blog.donews.com/keso>。>>【洪波搜搜百科】腾讯微博, 与其在别处仰望 不如在这里并肩。

5G/五季网络
5g.donews.com
5G/五季网络. 首页; 随便看看; 帮助. 欢迎您 登录 | 注册. 信息提示. 您需要先登录才能继续本操作. 页面跳转中... TOP. 5G/五季网络 - 广告合作 - 联系我们 - 京ICP备09029743号. Powered by UCenter Home 1.5 ©





Google + 简介

- <https://plus.google.com/>

Google+





Google + 简介





Google + 简介

People in your circles (4617)

People who've added you (6254) Find people

Type a name

Sort by: Relevance ▾

Remove Clear selection View profile More actions

	Xavier Zhong	绿番茄	Dahui Feng	keso me	艾颂	Rand Fishkin	陈方毅	Mall Far
Gordon Choi	Jason Ma	Zan Hui	SUN BO	Memono Liu	刘志勇	Robert Scoble	CWA Sidney Song	释大林
Amit Joshi	Bradley Horowitz	萧秋水	Jerry Go	Jarod Li	萧强	张松科	Phyllis Chen	张国平

Drag people to your circles to follow and share





Google + 简介

+Wang Gmail Calendar Documents Photos Reader Web more+

Wang Feng 0

Share...



Google+



Find people



Wang

Welcome

Stream

- Acquaintances
- Adobe
- Amazon
- Apple
- bit.ly

More ▾

Incoming

Notifications

Sparks

- google plus
- google
- 知乎
- 外贸B2C
- 外贸B2C
- 海外营销

Chat

Search people...

Available+

SEO

Share what's new...



Andy Mollison - 4:58 PM - Public

Impressive JPEG Re-compression tool - file quality stays the same, but image size is dramatically reduced - awesome for improving site speeds, and free!

JPEGmini - Your photos on a diet!



Your photos on a diet! Reduce the file size of your photos by up to 5x, while keeping their original quality and JPEG format!

+1 - Comment - Share - 翻译



Guy Kawasaki - 1:03 PM - Public

(Mon15) Same deal. Where is this?



SEO (405)



+ Add to SEO

View all

Send invitations



Invite friends

Hangouts

Have fun with this circle using your live webcam.

Start a hangout

Translate

Translate everything to 中文
(简体)
由 Google™ 翻译 强力驱动

Send feedback



Google + 简介

+Wang Gmail Calendar Documents Photos Reader Web more ▾

Wang Feng | 1 Share...

Google+



Find people



Wang

Photos of you

UPLOAD NEW PHOTOS

Photos from your circles

Photos from your phone

Photos of you

Your albums

Photos of you with...

[View all »](#)



Timothy Jordan (1)

Natalie Villalobos (1)

Photos of you

These are photos you've been tagged in. [Learn more](#)



by Timothy Jordan in Hangout Captures



Google + 简介

Google+

Wang

Welcome

Stream

- Acquaintances
- Adobe
- Amazon
- Apple
- bit.ly

More ▾

Incoming

Notifications

Sparks

- 海外营销
- 外贸B2C
- 知乎
- google
- google plus

Chat

Search people...

Available

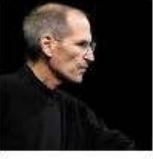
apple.com

apple.com

Add interest Pin this interest under Sparks for quick access.

With iTunes In The Cloud, Apple Under-Promises And Over-Delivers
Washington Post - 5:13 PM
By TechCrunch.com, As the summer winds down and we near the fall, we know two things are for sure about to enter existence in the world of Apple: iOS 5 and iCloud. Given that both offer third-party developers various opportunities, both are in the process of being tested by that community. ...

+1 Share 翻译

The Mystery of Steve Jobs's Public Giving
New York Times - 9:25 AM

David Paul Morris/Bloomberg News Steve Jobs, a founder of Apple, has focused on his ... Despite accumulating an estimated \$8.3 billion fortune through his holdings in Apple and a 7.4 ... He took a \$1-a-year salary from Apple before stepping down as chief executive last week, ...

+1 Share 翻译

+6

Amazon Tablet: Disruption To Apple; or Speed Bump?





Google + Profile

[Matt Cutts - Google Profile](#)

<https://plus.google.com/109412257237874861202>



Bay Area, California - Software Engineer at Google
I'm the head of the webspam team at Google. That means that if you type your name into Google and get porn back, it's my fault

[My blog](#) - Follow me on Buzz - Follow me on FriendFeed

Matt Cutts

3 circles

[Posts](#) **About** [Photos](#) [Videos](#) [+1's](#) [Buzz](#)

Introduction I'm the head of the webspam team at Google. That means that if you type your name into Google and get porn back, it's my fault. Unless you're a porn star, in which case porn is a completely reasonable response.

Occupation Software Engineer

Employment Google
Software Engineer, present

Education University of Kentucky
University of North Carolina at Chapel Hill

Places lived



Bay Area, California
Kentucky
Kentucky
Maryland
North Carolina

Links

- My blog
- Follow me on Buzz
- Follow me on Fri...
- YouTube - mattcu...
- My shared items ...
- Official Google Blog
- Google Webmast...
- My website
- Follow me on Twi...





Google + Profile

Google+

Find people



In Wang's circles (0)

Edit your profile to change who is visible in your network.

Have Wang in circles (6454)



[View all >](#)

[Change who is visible here](#)

Wang Feng

学而不带方能长，吾将上下而求索。Work@美赞拓(Mazentop.com)

[Edit Profile](#)

[View profile as...](#)

Posts [About](#) [Photos](#) [Videos](#) [+1's](#) [Buzz](#)

 Wang Feng - 8:44 AM - Public
Google Translate for Google+
<https://chrome.google.com/webstore/detail/jfppgkompofpkllaggkjiaddgndkgopgl>

 [Google Translate for Google+ - Chrome Web Store](#)
Translate your Google+ stream using integrated, inline, Google Translate support.

 - Comment - Share - 翻译

+7 by Jason Ma, Suraj SFB, an C and 4 others

2 comments from QianLun Li

 Lucas zhang - 要是有个手机版的就更好了
3:07 PM

Add a comment...



Google + Profile

Google+

Find people



keso me
Editor in Chief of Donews.com. Internet Consultant.

2 circles
You are in keso's circles too



[Send an email](#)

Posts About Photos +1's Buzz





Google + Profile

[Wang Feng - Google Profile](#)

<https://plus.google.com/100011386455690017279>



广东深圳 - SEO

"学而不带方能长，吾将上下而求索。Work@美赞拓(Mazentop.com)"

学而不怠方能长，吾将上下而求索。Work@美赞拓(赞拓旗下网站Zencart(Zen-)

Zencart - Mazentop美赞拓 - hi3w

[Wang Feng - Google+](#)

<https://plus.google.com/100011386455690017279> - Cached

1 day ago - **Wang Feng** - 学而不带方能长，吾将上下而求索。Work@美赞拓(Mazentop.com)
- SEO -- 广东深圳- 学而不怠方能长，吾将上下而求索。Work@美 ...

[PR: 4 | I: 26,900,000 | L: [error](#) | LD: [error 999](#) | I: 203,000 | Rank: 1 | Age: [error](#) | I: n/a | whois | source | Rank: 5]





Google + 插件

- Quick Hangouts for Google+™
- <https://chrome.google.com/webstore/detail/fdgiicomigipakpcpfgebhfhoeholio>



Send invitations

8+ Invite friends

Hangouts

Have fun with all your circles using your live webcam.

Start a hangout

Yonatan Zunger is hanging out. join now

Translate

Translate everything to 中文 (简体)
由 Google™ 翻译 驱动



Google + 插件

- Reader to Plus
- <https://chrome.google.com/webstore/detail/ellpglpgjfcppiljfokjoconaheiaiff>

十大社会化媒体营销网站 - 网店 SEO 和推广 十大社会化媒体营销网站 eMarketer最新数据显示，93%员工人数在100人以上

十大社会化媒体营销网站

作者：Mazentop

[网店 SEO 和推广](#)

十大社会化媒体营销网站 eMarketer最新数据显示，93%员工人数在100人以上的公司使用Facebook营销，78%的公司使用Twitter营销，使用YouTube营销的公司占61%。

11.jpg
[more ...](#) 统计信息 : 1 帖子 || 20 阅读次数 Post by Mazentop

加注星标 喜欢 共享 共享备注 电子邮件 保持为未读状态 修改标签: Zencart Share on Google+





Google + 插件



PlusFeed Unofficial Google+ User Feeds

PlusFeed has shut down

Google changed their pricing for AppEngine increasing the costs tenfold, making this free service unsupportable.

Sorry!

[See this post for more info.](#)

Please grab the open source code from GitHub [here](#) and start your own AppSpot instance if you rely on this service.

-Russ

Originally created by Russell Beattie





Google + 搜索

- <http://gplussearch.com/>
- <http://googleplussearch.chromefans.org/>

g+ Search



Google Plus 搜索

实时搜索 Google Plus (Google+) 上的内容和联系人

- Chrome 扩展程序
- Android 应用程序
- Firefox/IE/Chrome 搜索插件
[Mozilla | ChromeFans]

Search Public Google+ Content +1 3.4k

Want to help spread the word? [Reshare our post on G+!](#)





Google + 搜索

- - Everything
 - Posts Only
 - Profiles Only
 - Posts from Buzz
 - Posts from Google Reader





Google + 用户

- <http://plusclout.com/>

The screenshot shows the PlusClout website interface. At the top, the logo "PlusClout" with a small upward arrow icon and the word "Beta" are displayed. Below the logo is a search bar with the placeholder text "Insert your Google+ ID to get your PlusClout Score". To the right of the search bar is a green button labeled "Get PlusClout". A note below the search bar explains that the ID is found in the URL of a Google+ profile, with an example provided: <https://plus.google.com/106189723444098348646>. Below the search area is a navigation menu with letters from A to Z. The main content area displays six user profiles in a grid:

Profile Picture	Name	Score
	Marissa Mayer	+ 95
	Kevin Rose	+ 95
	Vic Gundotra	+ 95
	MG Siegler	+ 95
	Larry Page	+ 67.3
	Mark Zuckerberg	+ 0

At the bottom of the main content area is a call-to-action button: "Discover People with great PlusClout".



Google + 用户

- <http://www.recommendedusers.com/>

Discover whom to add to **your circles**.

Select the **topics** you are interested in. Find a few people from the **suggested users**, then add them to your circles.

Looking to expand your
social network?
There is a circle for you!



People's Choice



Bloggers



Podcasters



Women in Tech



Featured Users



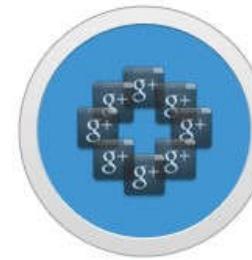
Photographers



Artists & Designers



Web Celebrities



Most Followed People



Journalists





Google + 用戶

- <http://www.group.as/>

ENTER GOOGLE+ PROFILE URL OR ID.

ENTER GROUP/s (EG. PHOTOGRAPHER).

groupas fans *

Photographer	Celebrity	Entrepreneur
TREY RATCLIFF VERIFIED IN 77345 CIRCLES	RAY WILLIAM JOHNSON VERIFIED IN 127787 CIRCLES	MARK ZUCKERBERG VERIFIED NO POSTS IN 485851 CIRCLES
THOMAS HAWK VERIFIED IN 49140 CIRCLES	FELICIA DAY VERIFIED IN 123580 CIRCLES	PETE CASHMORE VERIFIED IN 169646 CIRCLES
LISA BETTANY VERIFIED IN 35663 CIRCLES	ASHTON KUTCHER VERIFIED IN 49970 CIRCLES	KEVIN ROSE VERIFIED IN 120757 CIRCLES
BRIAN ROSE VERIFIED IN 25498 CIRCLES	MARK CUBAN VERIFIED IN 47637 CIRCLES	GUY KAWASAKI VERIFIED IN 55435 CIRCLES
VINCENT MO VERIFIED IN 20553 CIRCLES	WILLIAM SHATNER VERIFIED IN 43829 CIRCLES	ASHTON KUTCHER VERIFIED IN 49970 CIRCLES
SCOTT KELBY VERIFIED IN 15241 CIRCLES	許茹芸 VERIFIED IN 43247 CIRCLES	LOIC LE MEUR VERIFIED IN 47801 CIRCLES
COLBY BROWN VERIFIED IN 15102 CIRCLES	ALYSSA MILANO VERIFIED IN 39168 CIRCLES	MARK CUBAN VERIFIED IN 47637 CIRCLES

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Blogger	Google	Advertisement
ROBERT SCOBLE IN 120802 CIRCLES	LARRY PAGE VERIFIED IN 290936 CIRCLES	



Google + 用戶

- <http://findpeopleonplus.com/statistics>





Google + 用戶

- <http://www.circlecount.com/mosaic/>

The Top 100 Google+ Profiles

[Female](#) | [Male](#) | [Both](#)

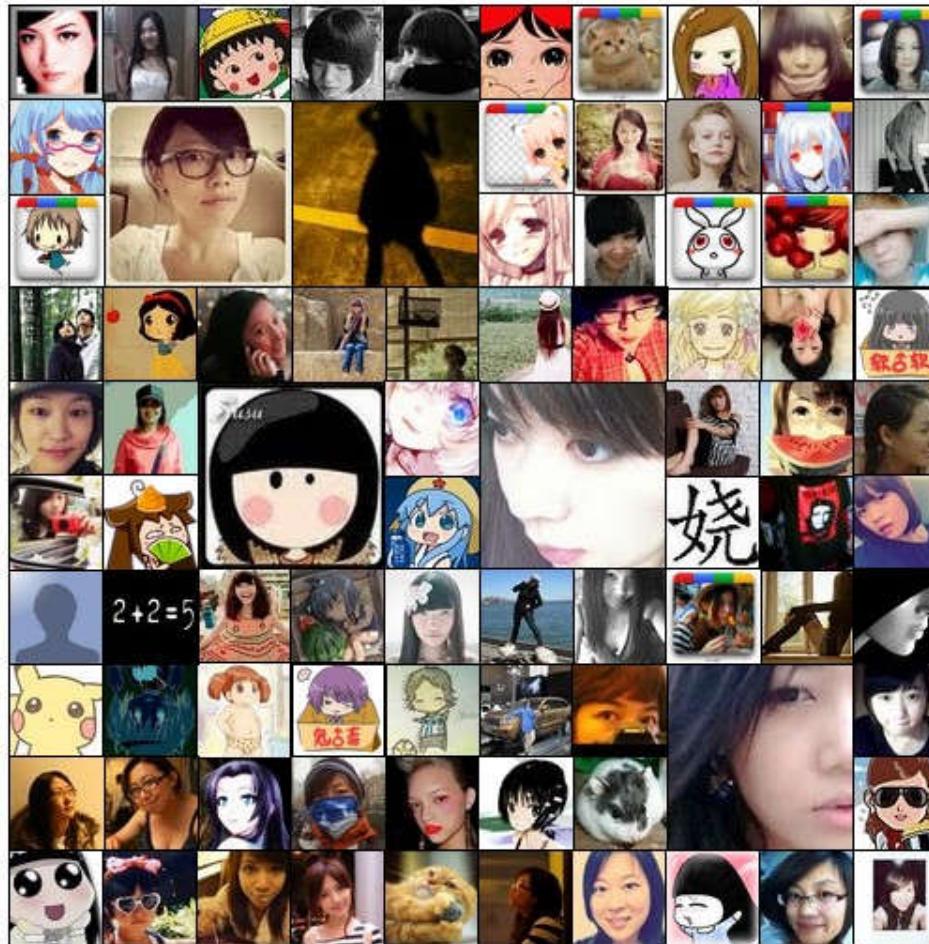




Google + 用戶

The Top 100 Google+ Profiles (Women)

[Female](#) | [Male](#) | [Both](#)





Google + 短网址

<http://plus.ly/>

<http://topl.us/>

<http://gplus.to/>

<http://goplus.us/>

<http://plusya.com/>

<http://gplusnick.com/>





Google + 短网址

- <http://gplus.to/>

The screenshot shows the gplus.to website interface. At the top left is the gplus.to logo. To its right is a banner with the text "Make short URL for Google+" and the Google+ logo. Below this is a search bar containing "gplus.to/username".

The main form has two input fields: "Nick Name" and "Your Google+ ID". The "Nick Name" field contains the placeholder "Choose your nick name...". The "Your Google+ ID" field contains the placeholder "Google+ ID paste here..." and has a "add" button to its right. Below these fields is a modal window showing a screenshot of a web browser with a Google+ tab open. The address bar displays the URL <https://plus.google.com/107623790744375289729/posts>. The browser's navigation bar includes links for Calendar, Documents, Photos, Reader, Web, and more.

Nick Name

Choose your nick name...

Your Google+ ID

Google+ ID paste here... add

i Info!

Your username:
Could be 3 to 25 characters,
Should not contain special characters,
You can create a nick for individual Google+ account.
Only Latin characters and numbers.

Google+ https://plus.google.com/107623790744375289729/posts

Calendar Documents Photos Reader Web more

Google+



内容摘要

- 个人简介
- Google plus - G+
- QQ plus - Q+
- 物联网 plus - IoT+
- ? + US





Q+开放之路

即时通信线





中国互联网主流开放平台



淘宝网



Shopping Mall式的开放平台为主流





Q+ : 互联网改革开放



上世纪八十年代,深圳经济特区建设初期的景象
(本图片来自深圳福田图片杂志)



深圳30年 laoshen 2010.09.06



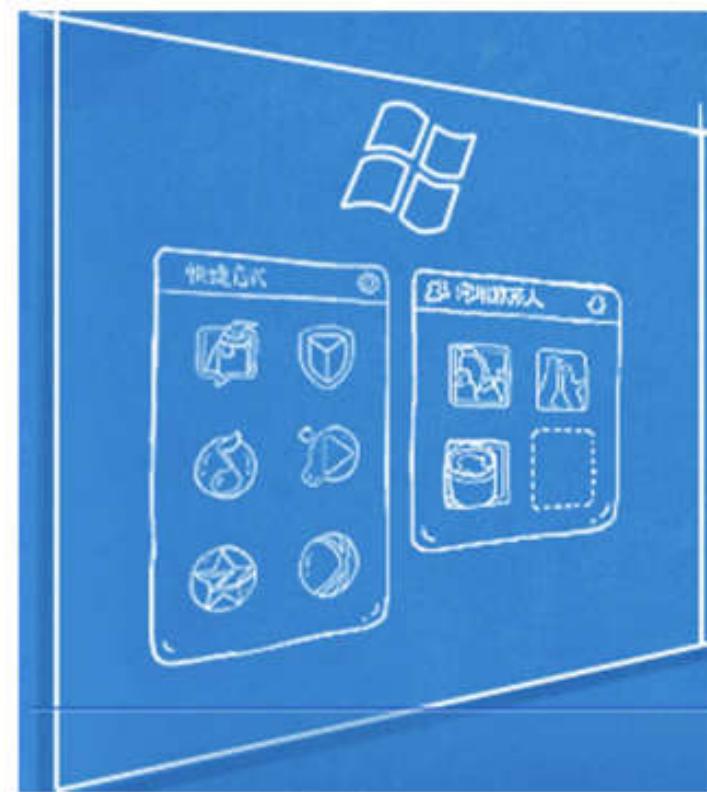
: 开放不是一种态度是能力





什么是Q+

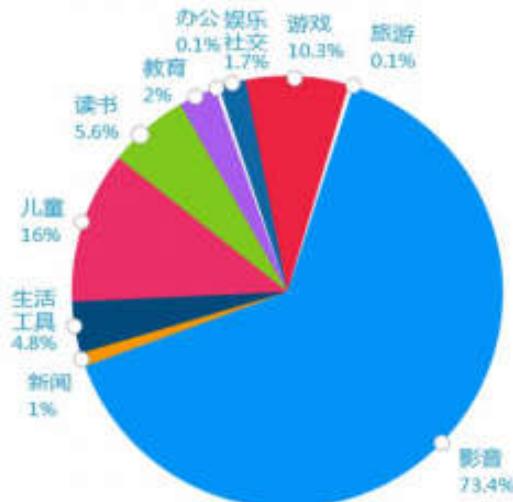
- 下一代QQ
- 开放平台
- Better OS
 - 格子
 - 云存储
 - QQ API



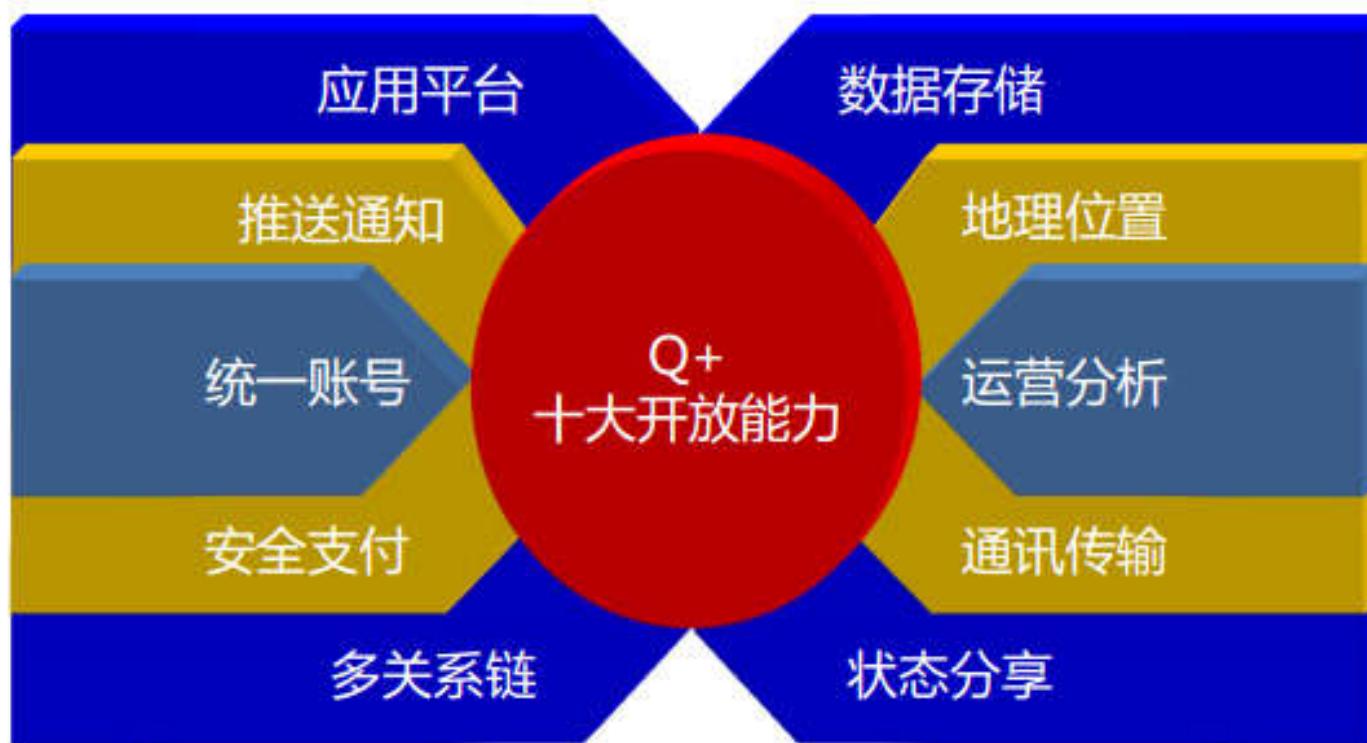


Q+发展现状

- ◆ 千万级用户量
- ◆ 超40000款精品app
- ◆ 在线app开发商超400家



Q+十大开放能力





新开放平台能力

- 云存储
- 地理位置
- 运营分析
- 通讯传输
- SNS API for Game





扶持应用创新

- 用户体验创新
- 用户价值创新
- 移动互联创新





愿景



让天下没有埋没的创新！





内容摘要

- 个人简介
- Google plus - G+
- QQ plus - Q+
- 物联网 plus - IoT+
- ? + US



生活中，你遇到过这样的
困扰过吗？

东西找不到了.....

钱包里一叠
厚厚的“卡”.....

外出时，
担心家里被盗.....



在商店消费时，
问题在于

事物没有实时联系！

热气腾腾的饭菜.....



科技创造美好生活

物联网





物联网是什么？

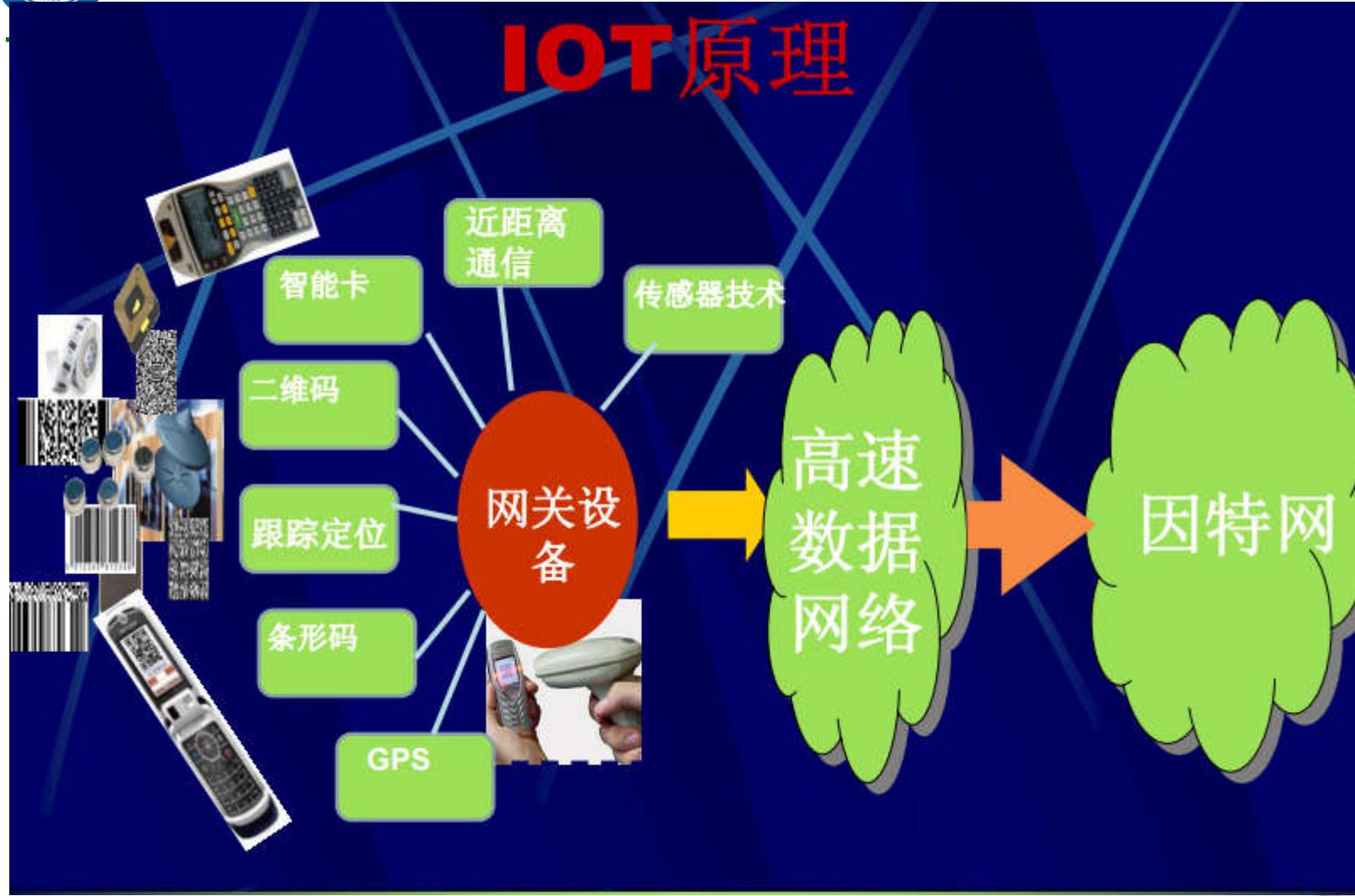
物联网 (The Internet of Things),
简称 IoT。

物联网指的是：通过传感器、射频识别技术、全球定位系统等技术，实时采集任何需要监控、连接、互动的物体或过程，采集其声、光、热、电、力学、化学、生物、位置等各种需要的信息，通过各类可能的网络接入，实现物与物、物与人的泛在链接，实现对物品和过程的智能化感知、识别和管理。





IOT原理





物联网将物理世界和信息世界相联接





智慧的社会，智慧的生活

智慧的城市



智慧的电网



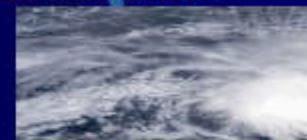
智慧的医疗



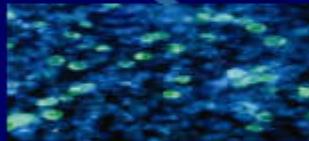
智慧的运输



智慧的水资源管理



智慧的气象



智慧的食品系统



智慧的货币



智慧的供应链





丰富多彩的物联网应用





物联网能做什么？

物联网——
科技与生活

吃饭就刷手机

——重庆开展物联网试点学校13所

家庭网关

将成为我国智能住宅市场主流

——波创科技发展有限公司董事长韦波

深圳)

物联网与电子商务

将受到重点支持

“现在大家看到世博园四周的铁丝网上，就有物联网防入侵系统。”

智能交通的发展方向

云计算



物联网的关键问题与典型范例

- 物联网标准问题
- 物联网技术问题（感知层、网络层、应用层）
- 物联网管理问题（资源管理、安全管理）

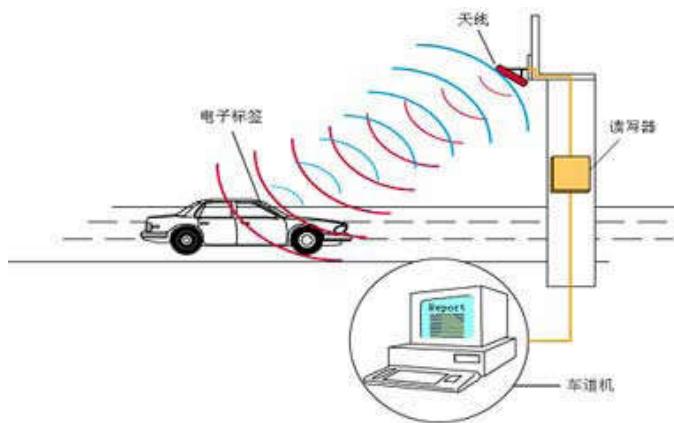




物联网的关键问题与典型范例

高速公路ETC（Electronic Toll Collection）系统：车辆挡风玻璃上安装车载通行支付RFID电子标签；电子标签与收费站ETC车道上的微波天线之间的通信通过微波短程通信；利用计算机联网与银行系统进行后台结算处理；利用车辆安装的RFID电子标签、路边安置的感应器，还可得到车辆行驶路径以及车的流量信息等。

美国、欧洲、日本较早就开始对ETC系统技术、工程实施和标准规范进行了研究



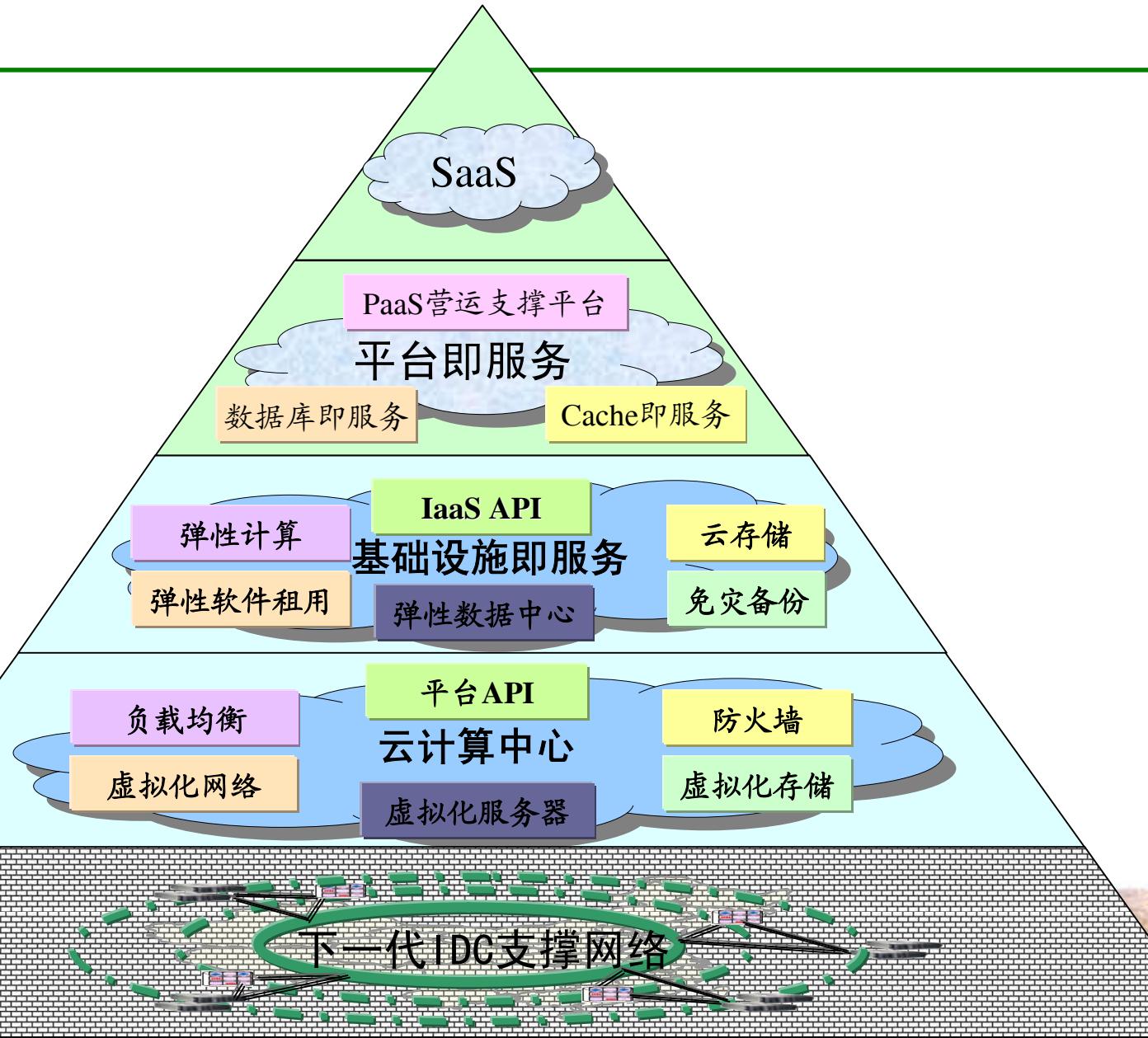


- 物联网与云计算





云计算模式数据中心

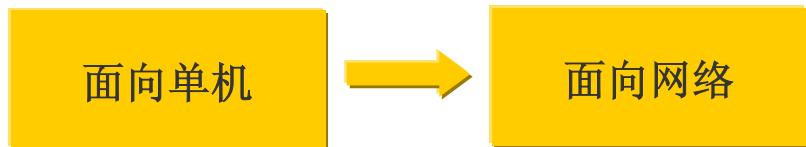




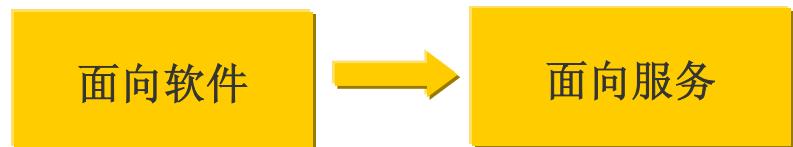
云计算影响：信息产业面临重新洗牌

- 大量的中小企业软件开发商面临着工作平台、工作对象、工作方式的重组：
- 在云计算的大潮中要么做大做强服务，成为“大款”；要么“傍大款”，依附发展；否则被淘汰。

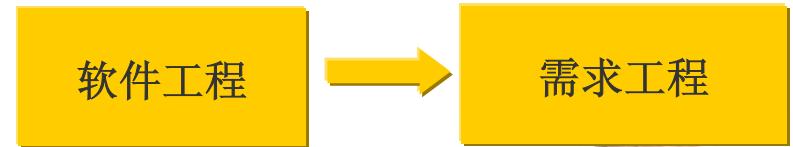
工作平台：



工作对象：



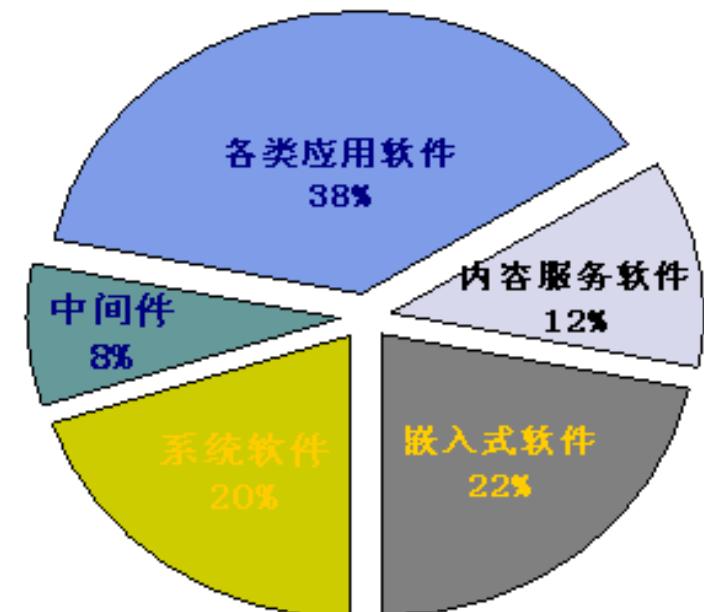
工作方式：





影响二：软件产业结构面临调整

- 云计算使得信息服务的社会化成为可能，改变并精细化了大众需求，催生新的市场和新的服务业；
- 软件产业结构发生变化，基于内容的信息服务业所占比重越来越大；
- 单机的系统软件和中间件所占比重逐渐减小，软件依附于应用；
- 嵌入式软件更加个性化、柔性化。



2008年我国软件产值构成分析

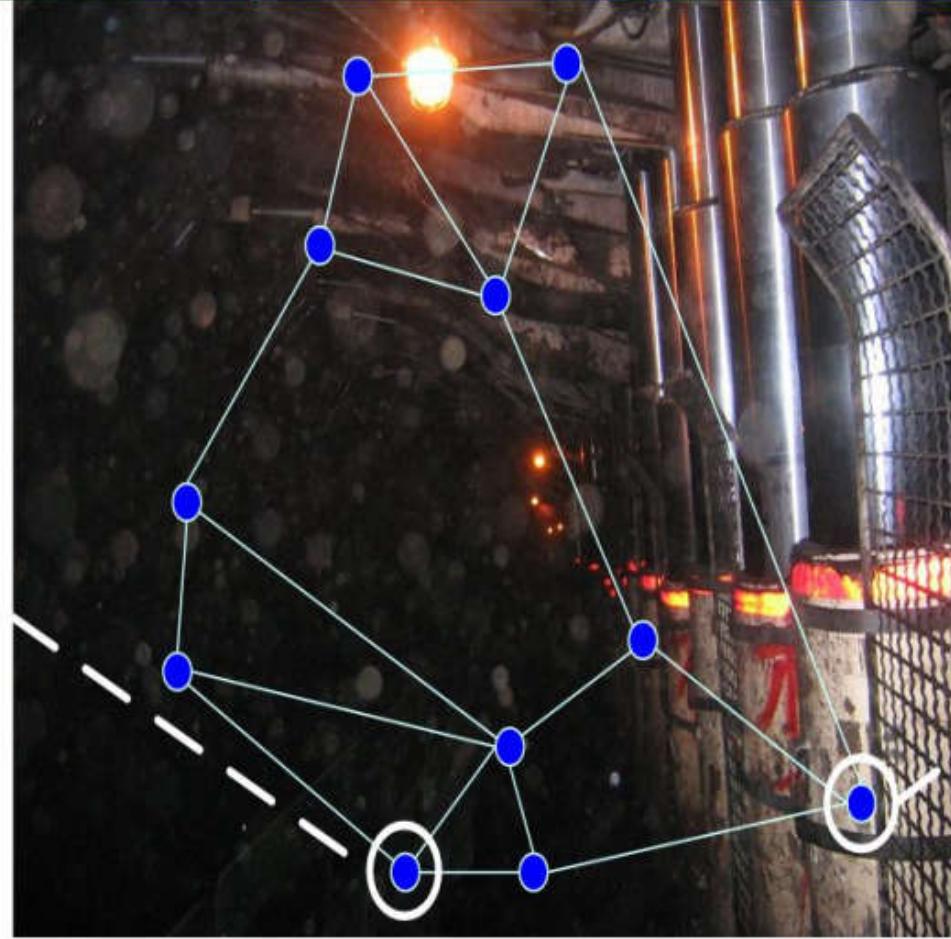




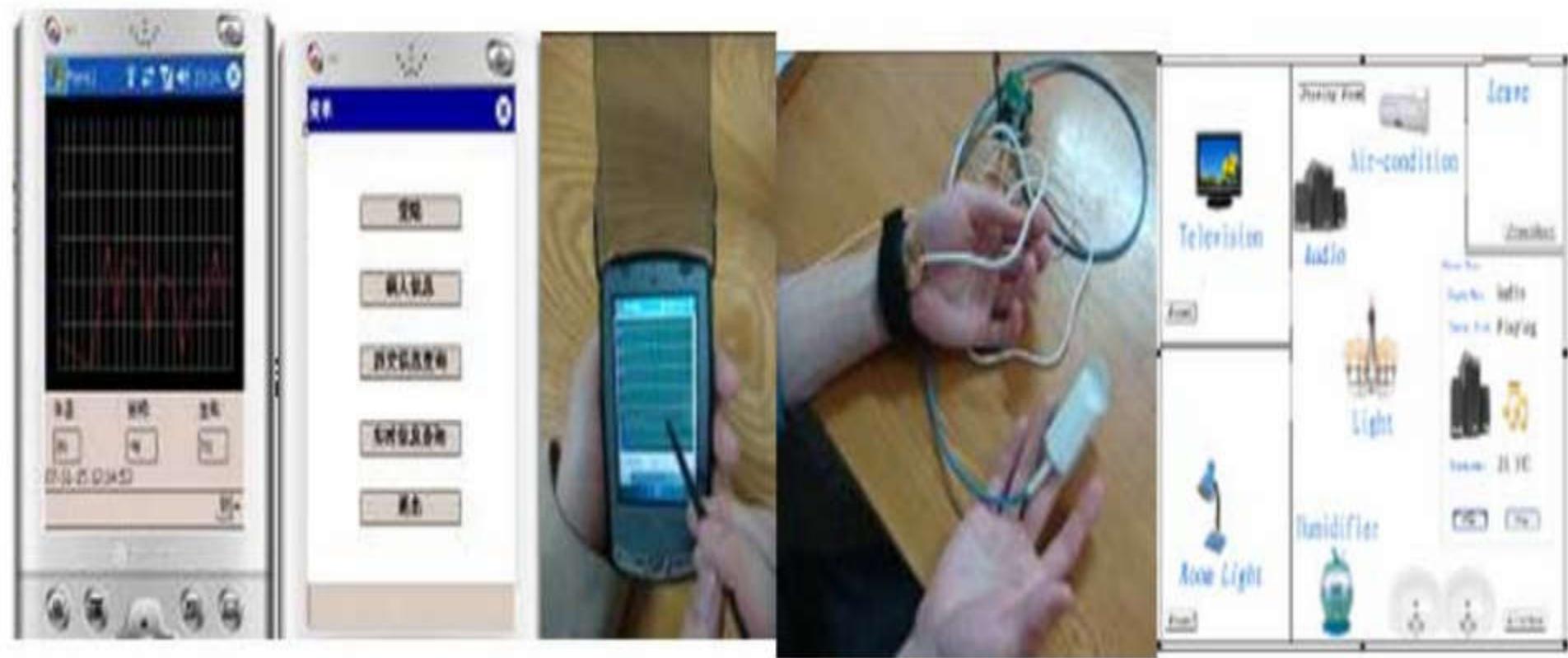
- 物联网与传感器网络



● WSN应用例子—安全监控（如矿井结构、瓦斯）

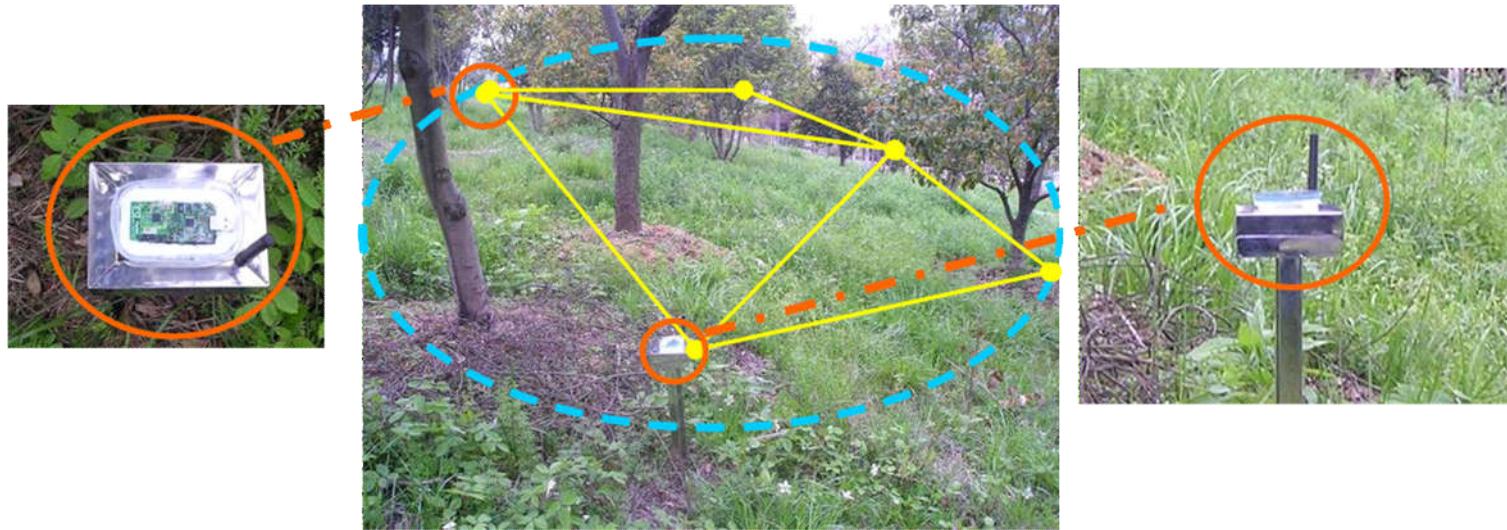


从手机获得远端人体医疗信息（体温、血糖、脉搏、心跳等）





森林生态物联网：典型应用场景



- 森林生态安全监测
- 森林生态旅游导航与安全保障
- 林业生产智能管理和城市森林规划

森林生物量采样监测系统

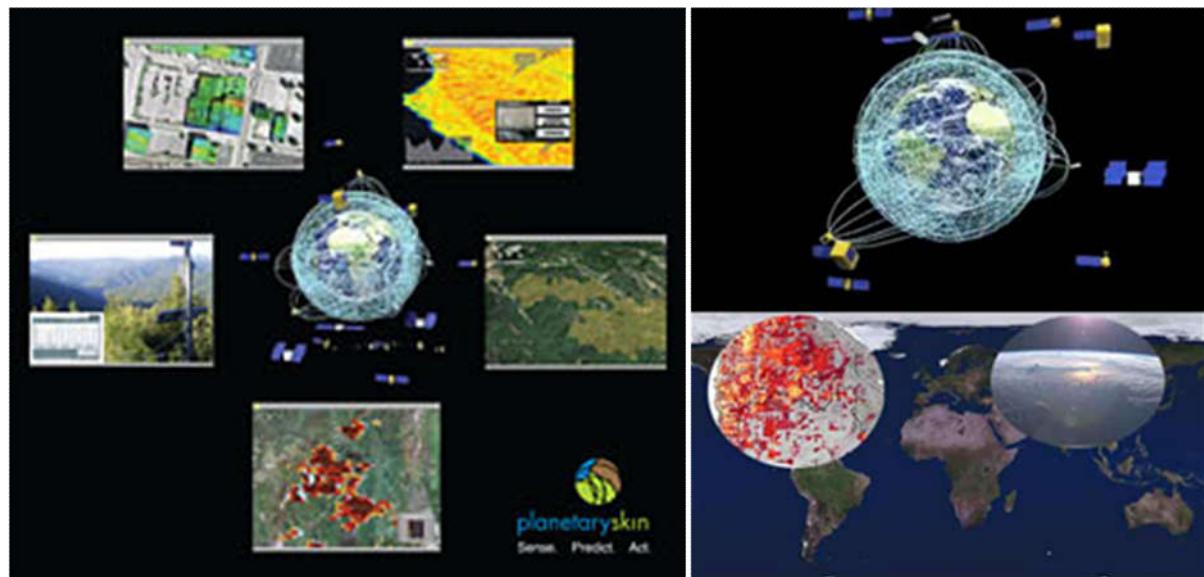




环境监测物联网应用：Planetary Skin

发起单位：思科（CISCO）公司和美国国家航空航天局

项目宗旨：应对全球气候变化的挑战，为人类提供环境信息量化评估和决策支持系统。



Planetary Skin项目示意图





无线网络协议

< 50 Km

2G
GSM/CDMA
 $\leq 64 \text{ kbps}$

3G/B3G
UMTS/CDMA2000/TD-SCMA
(384 kbps ~ 3 Mbps)

4G
 $\leq 4 \text{ MB/sec}$

WAN

100 m

WSN

ISM频段
 $< 100 \text{ kbps}$

802.15.4
Zigbee
250 kbps

蓝牙协议1
 $< 723 \text{ kbps}$

蓝牙协议2
 $< 3 \text{ Mbps}$

RFID

10 m

802.11b
 $< 11 \text{ Mbps}$

802.11g
 $< 54 \text{ Mbps}$

802.11a
 $< 54 \text{ Mbps}$

LMDS
 $< 38 \text{ M bps}$

WiMax/802.16
 $< 75 \text{ Mbps}$

MAN

< 1m

LAN

PAN

低传输速率

高传输速率



ITU Scheme on Layers of Ubiquitous Sensor Network services





物联网与RFID

RFID应用实例



資源回收



門禁管制



文件與檔案管理



寵物管理



車輛管制



醫療管理



航空行李



倉儲管理與物流業



圖書管理



服飾物流



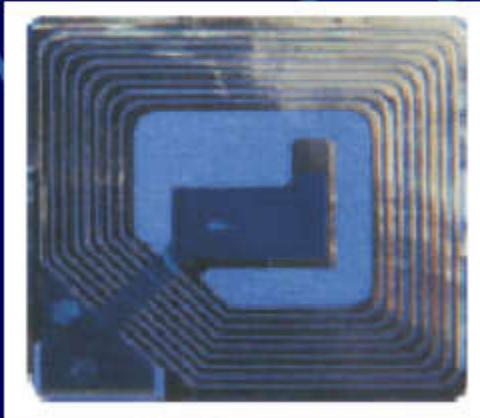
特殊容器管理



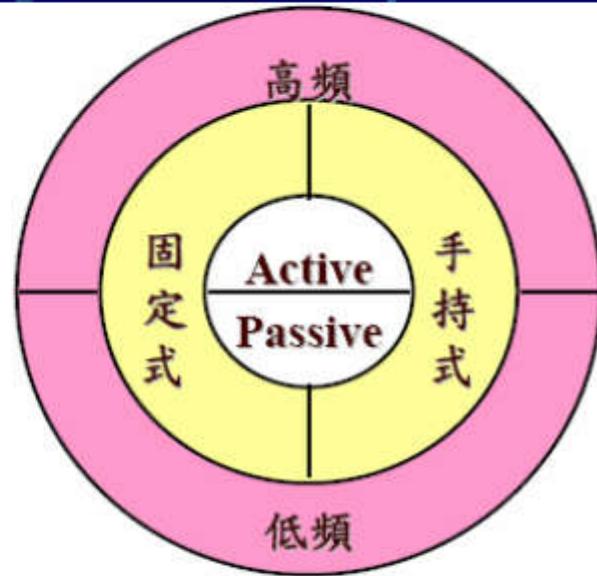
零售流通業



RFID形状和结构



RFID阅读器





RFID与条形码比较

条形码	RFID
一次只能扫描一个条形码。	阅读器可同时识读多个 RFID 标签。
读取时需要光线。	阅读时不需要光线。
存储容量小。	存储容量大。
资料不可更新。	可反复读、写。
介质需要清晰，不能污损或折叠。	在严酷、肮脏条件下仍然可以读取。
不能被覆盖。	读取时不受非金属覆盖的影响。
只能慢速移动。	可以在高速运动中读取。





从互联网到物联网

互联网的延伸

- 终端多元化

- ✓ 摆脱“人在上网”的束缚

- ✓ 网络世界和物理世界更加紧密的联系

- 信息获取方式的多样化

- 主动获取，被动告知

- 感知行为的智能化

- 人类对物理世界的控制能力得到前所未有的加强

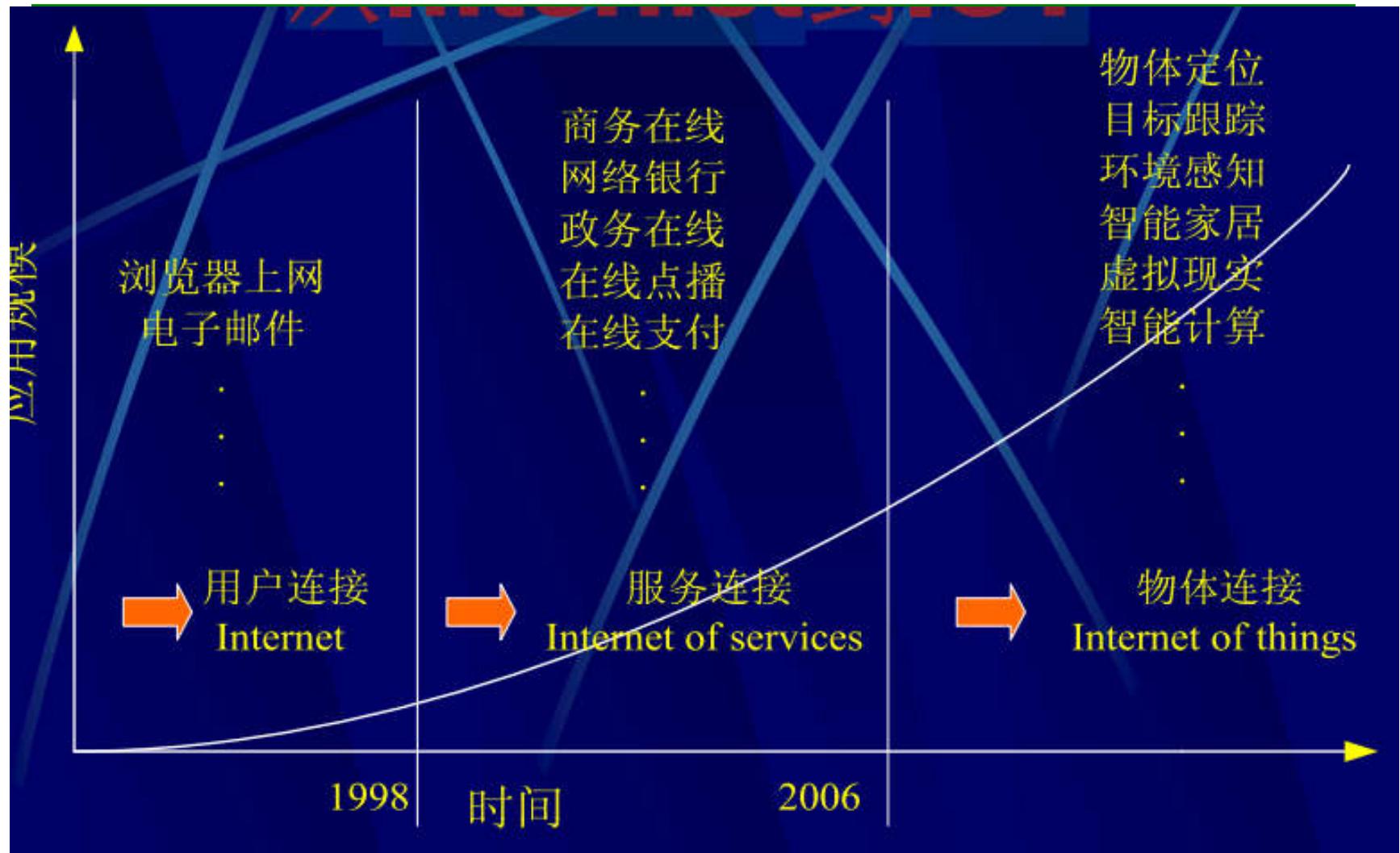
互联网在物联网中的重要性

物联网是互联网应用的延伸和拓展，互联网是实现物（人）与物（人）之间更加全面的互联互通的最重要和最主要的途径。





从Internet到IOT





内容摘要

- 个人简介
- Google plus - G+
- QQ plus - Q+
- 物联网 plus - IoT+
- ? + US





- 每一个不曾起舞的日子都是对生命的辜负!

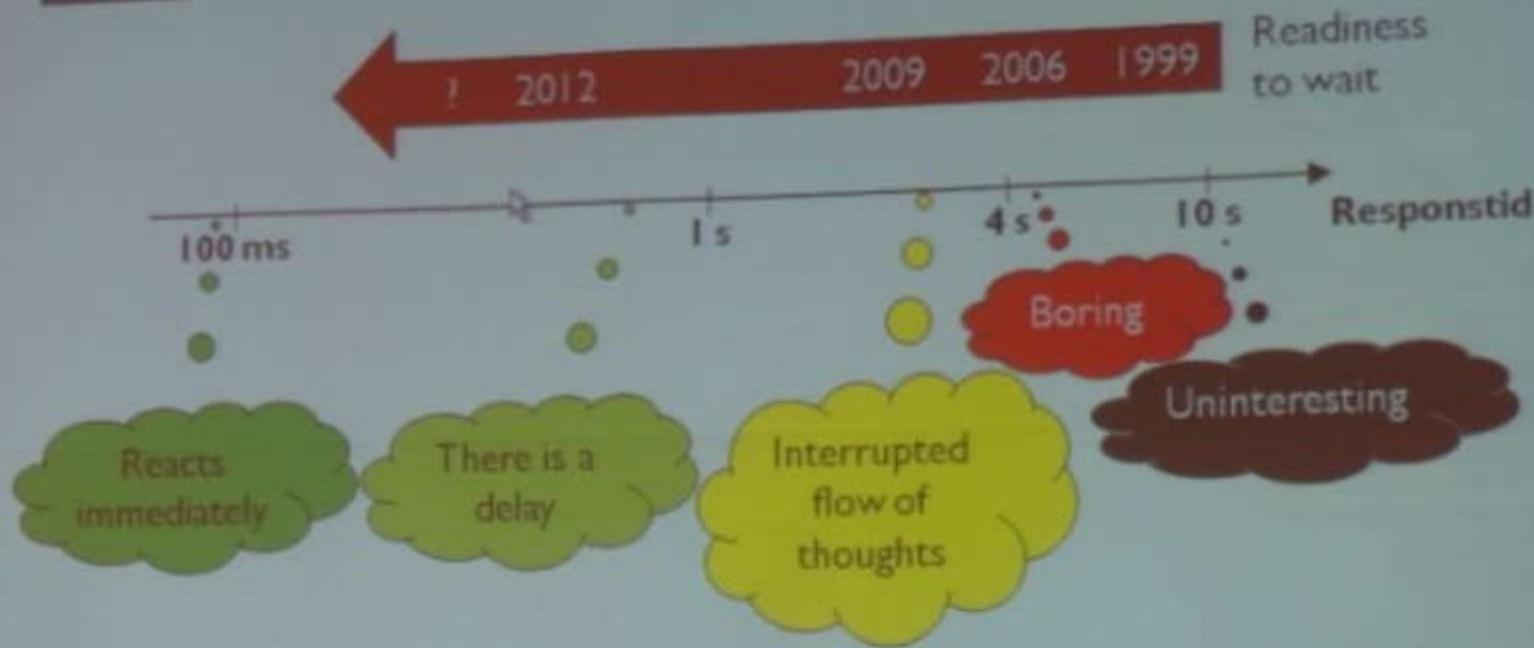
- 一一尼采





"World Wide Wait?"

User experience and patience





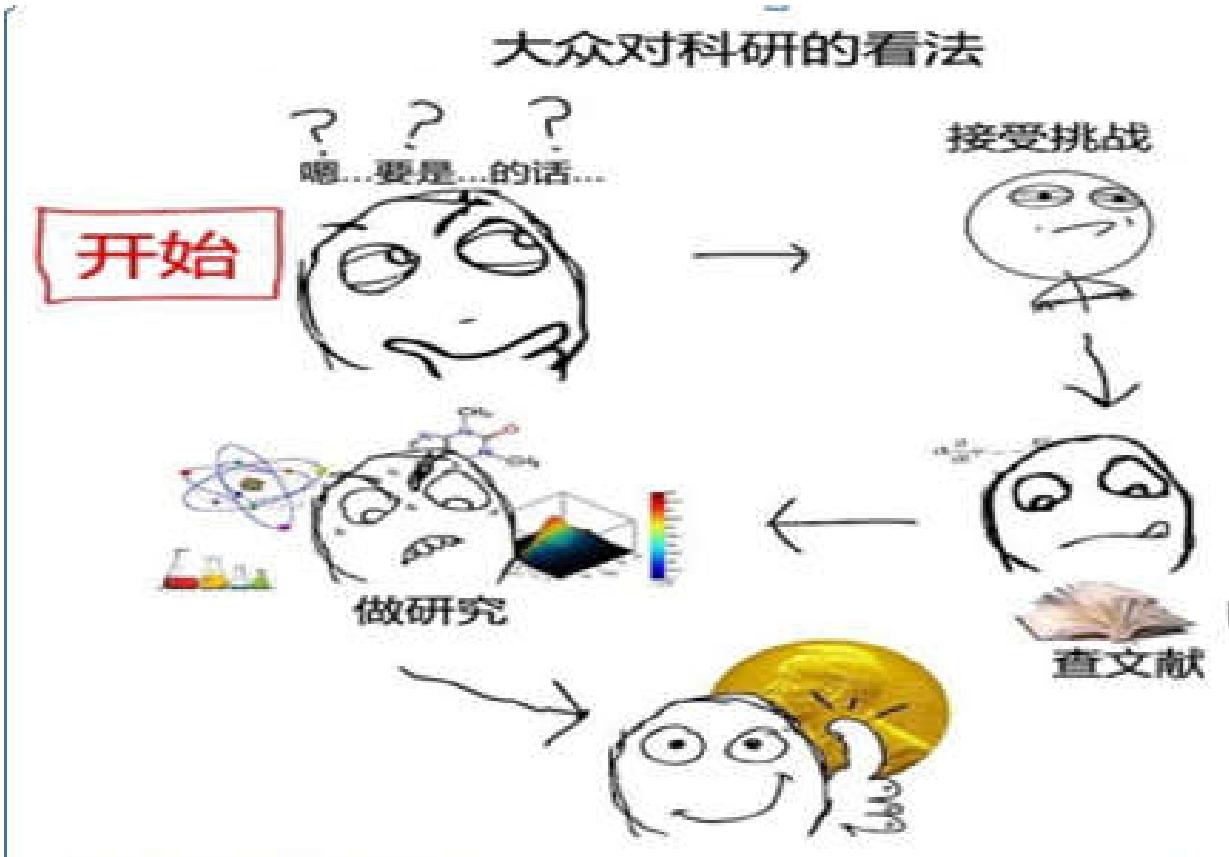
研究？

- 有点早，迟早的事
- 以后要碰到的
 - 选专业
 - 专业被黑
- 毕业后选择
 - 深造
 - 国内、国外
 - 就业
 - 求职、创业
- 看清自己





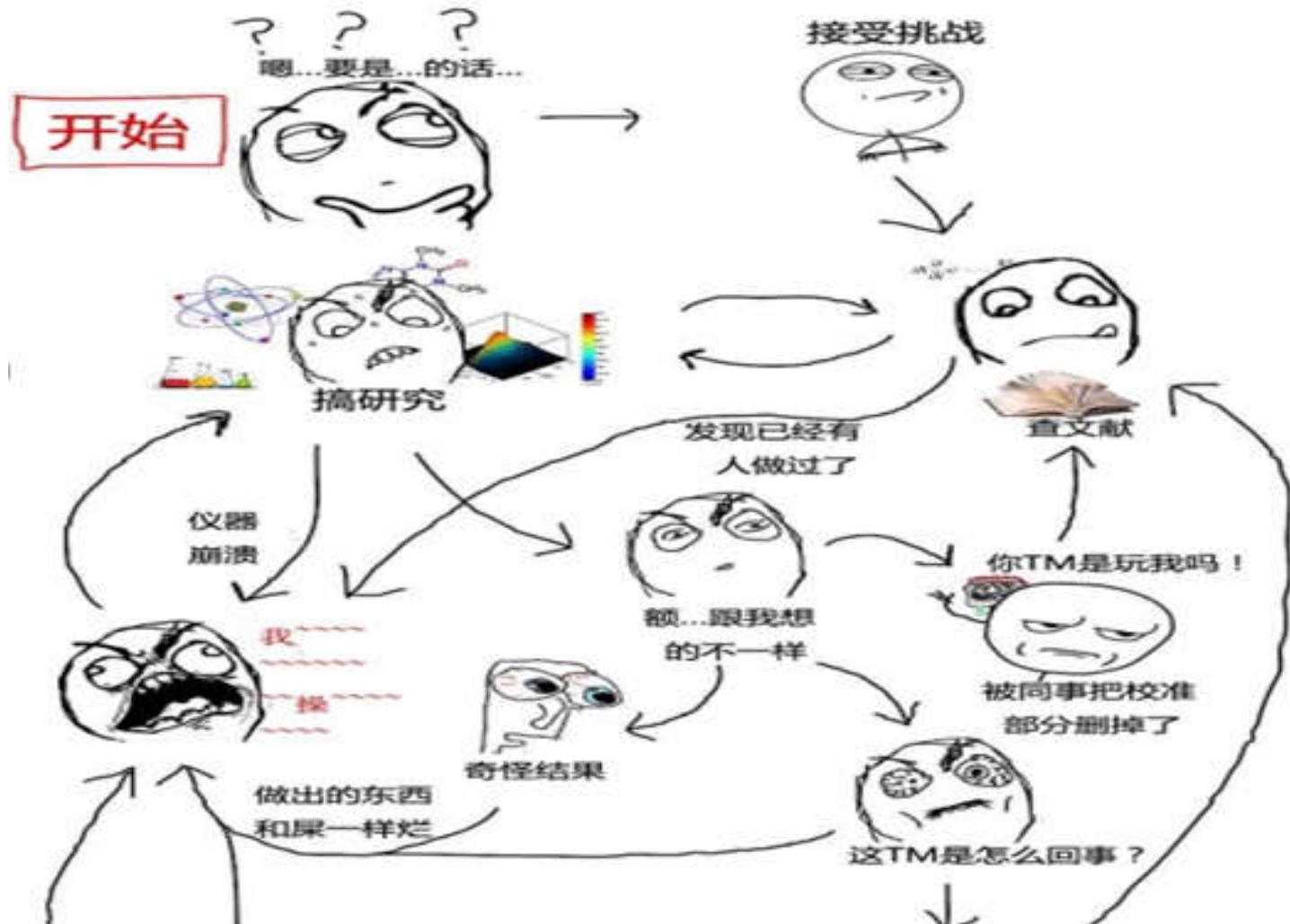
科研





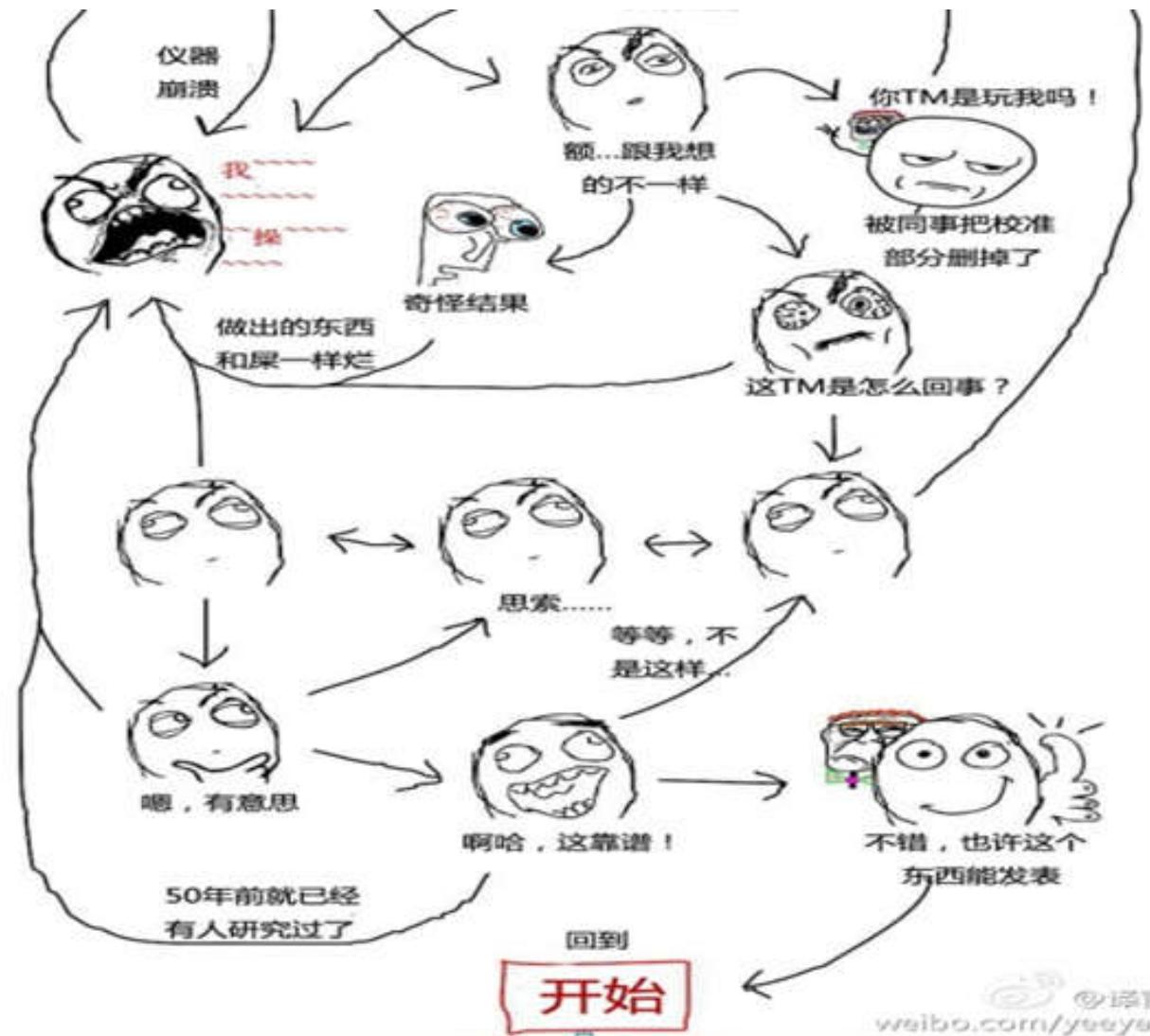
科研.....

现实中的科研





科研.....



微博: @译言
weibo.com/yeyan



一个字，磨



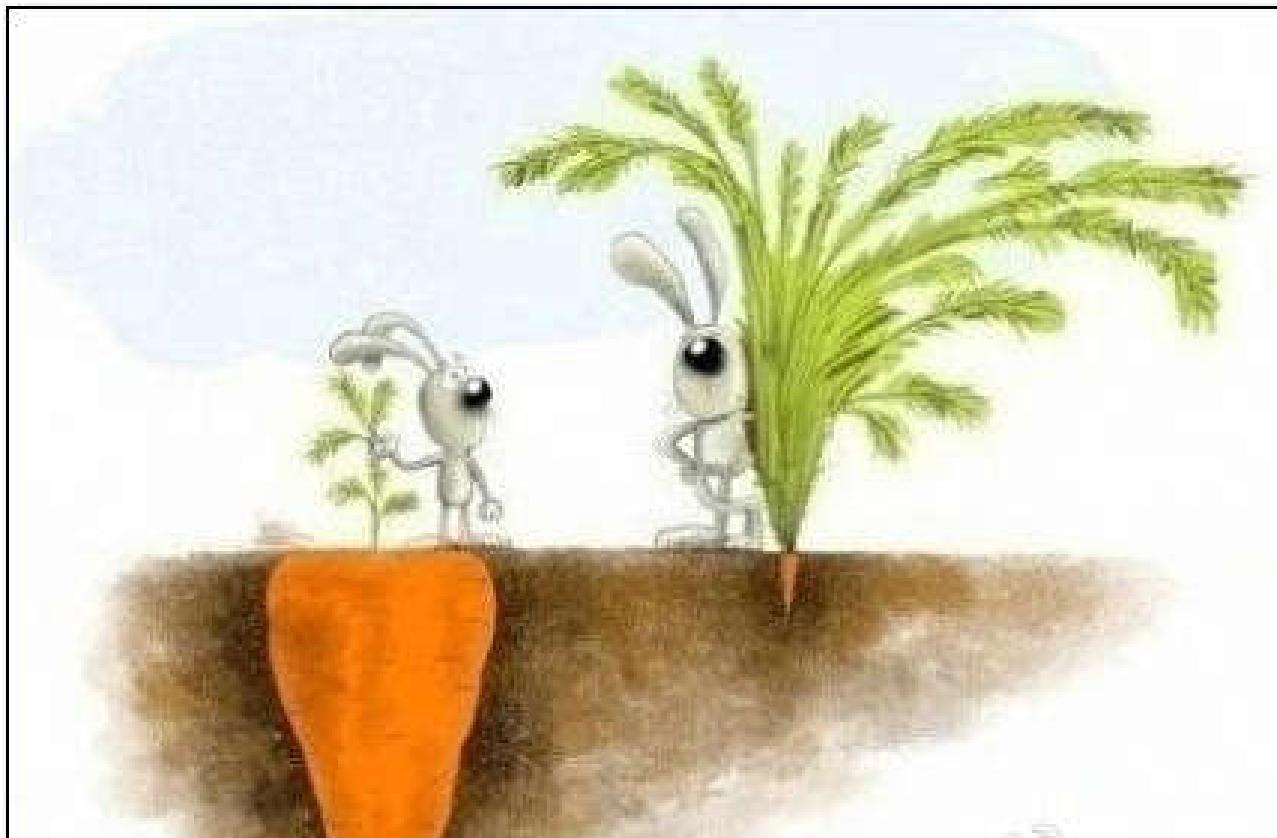
.....的精神





不要被表面所蒙蔽

- 不要被表面所蒙蔽





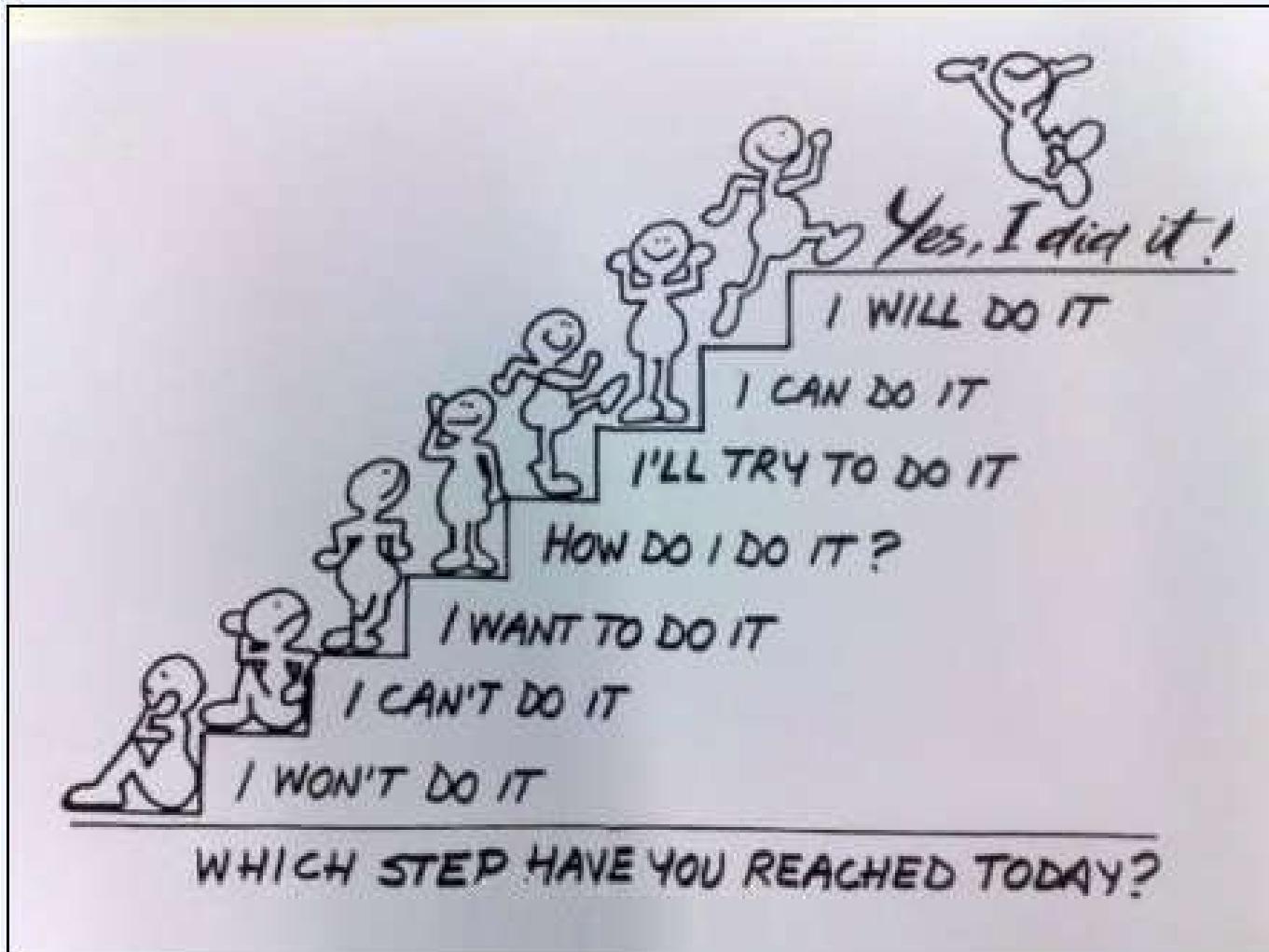
不要被表面所蒙蔽

- 避免羊群效应





现在就开始





全面看问题





客观分析，
又不失特色

四大軟件

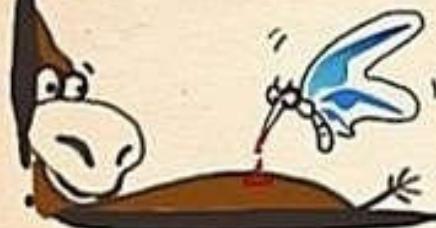
固固貓



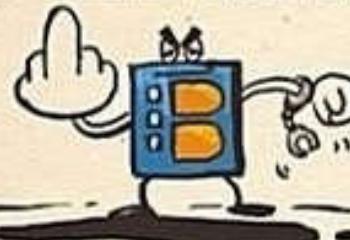
騰訊：一直在模仿，從未被起訴



迅雷：一直在吸血，從不管用戶



賽風：一直在流氓，從未被抓住



瑞星：一直在娛樂，從不殺病毒





认真做调研

- 知道来龙去脉

one angle 	two angles 	three angles 
four angles 	five angles 	six angles 
seven angles 	eight angles 	nine angles 
no angle 		(siffr, which gave the French word "chiffre")



要做到极致





还是做到极致





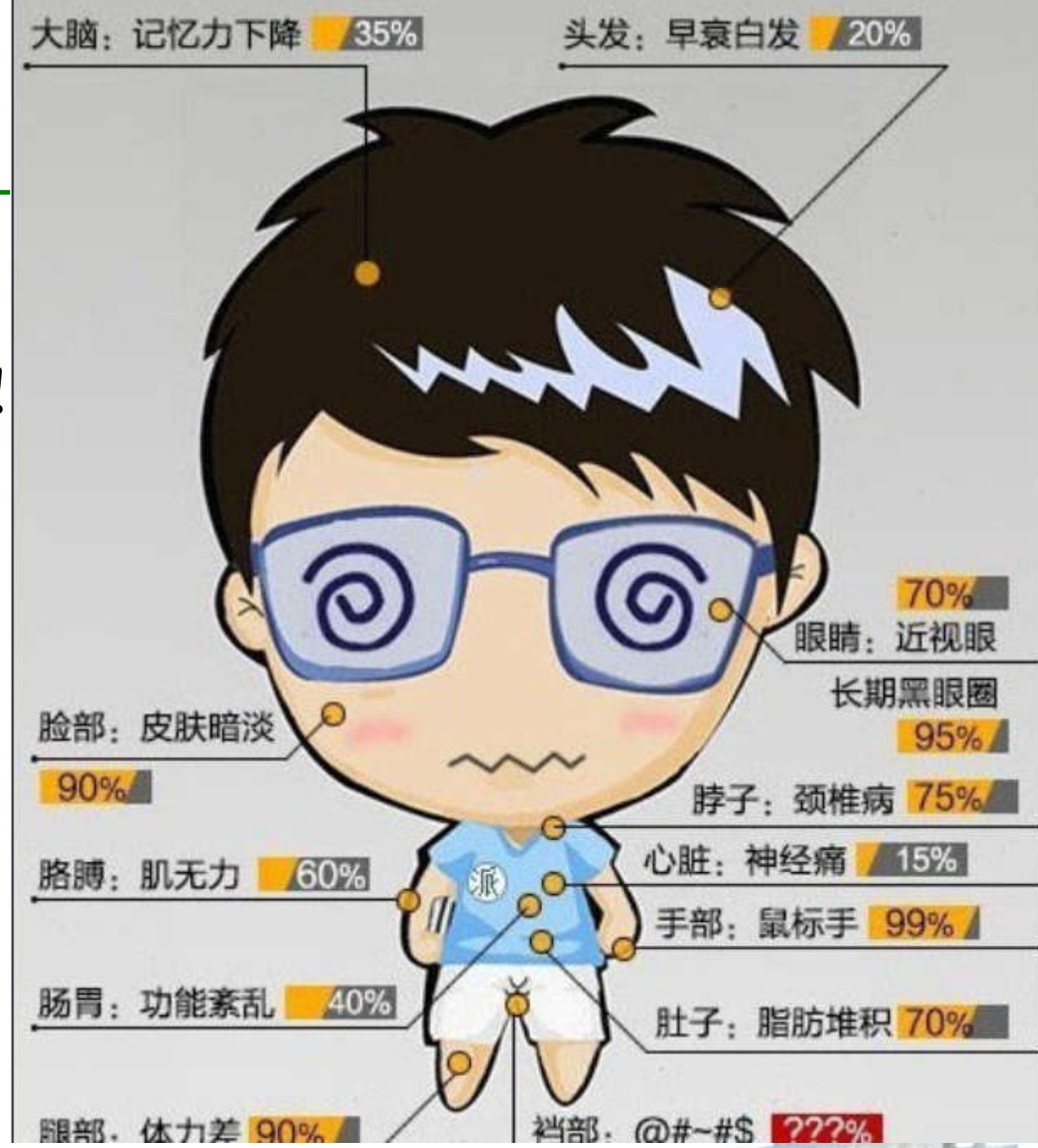
对自己有利的分析





IT人

- 乔丹说：
- JUST DO IT !





逆袭？





谢谢！

- 孙伟峰
- 软件学院办公综合楼405
- wfsun@dlut.edu.cn
- 87571607
- 15541141261
- <http://home.ustc.edu.cn/~wfsun>

