Bienvenido a …

¿Qué es LAB?

Mengyu Zhou

Lab μ

A Brief History

2007~now

www.maTHmU.cn 计算机代数系统

For a time I stood pondering on circle sizes. The large computer mainframe quietly processed all of its assembly code. Inside my entire hope lay for figuring out an elusive expansion. Value: pi. Decimals expected soon. I nervously entered a format procedure. The mainframe processed the request. Error. I, again entering it, carefully retyped. This iteration gave zero error printouts in all-success. Intently I waited. Soon, roused by thoughts within me, appeared narrative mnemonics relating digits to verbiage! The idea appeared to exist but only in abbreviated fashion-little phrases typically. Pressing on I then resolved, deciding firmly about a sum of decimals to use-likely around four hundred, presuming the computer code soon halted! Pondering these ideas, words appealed to me. But a problem of zeros did exist. Pondering more, solution subsequently appeared. Zero suggests a punctuation element. Very novel! My thoughts were culminated. No periods, I concluded. All residual marks of punctuation = zeros. First digit expansion answer then came before me. On examining some problems unhappily arose. That imbecilic bug! The printout I possessed showed four nine as foremost decimals. Manifestly troubling. Totally every number looked wrong. Repairing the bug took much effort. A pi mnemonic with letters truly seemed good. Counting of all the letters probably should suffice. Reaching for a record would be helpful. Consequently, I continued, expecting a good final answer from computer. First number slowly displayed on the flat screen – 3. Good. Trailing digits apparently were right also. Now my memory scheme must probably be implementable. The technique was chosen, elegant in scheme: by self reference a tale mnemonically helpful was ensured. An able title suddenly existed – "Circle Digits." Taking pen I began. Words emanated uneasily. I desired more synonyms. Speedily I found my (alongside me) Thesaurus. Rogets is probably an essential in doing this, instantly I decided. I wrote and erased more. The Rogets clearly assisted immensely. My story proceeded (how lovely!) faultlessly. The end, above all, would soon joyfully overtake. So, this memory helper story is incontestably complete. soon I will locate publisher. There a narrative will I trust immediately appear, producing fame. THE END.

圆周率前402位 · Chudnovsky算法

加入我们！

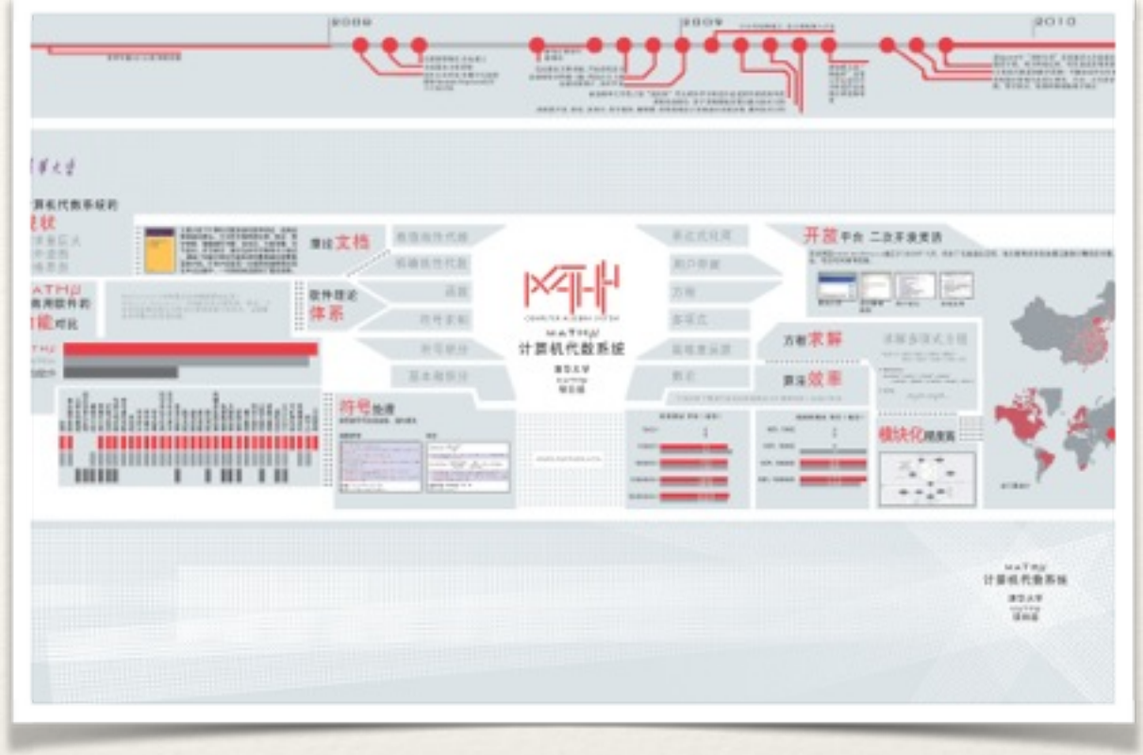
- 学生立项SRT项目
- 第19期种子基金支持项目
- 全国挑战杯申报项目

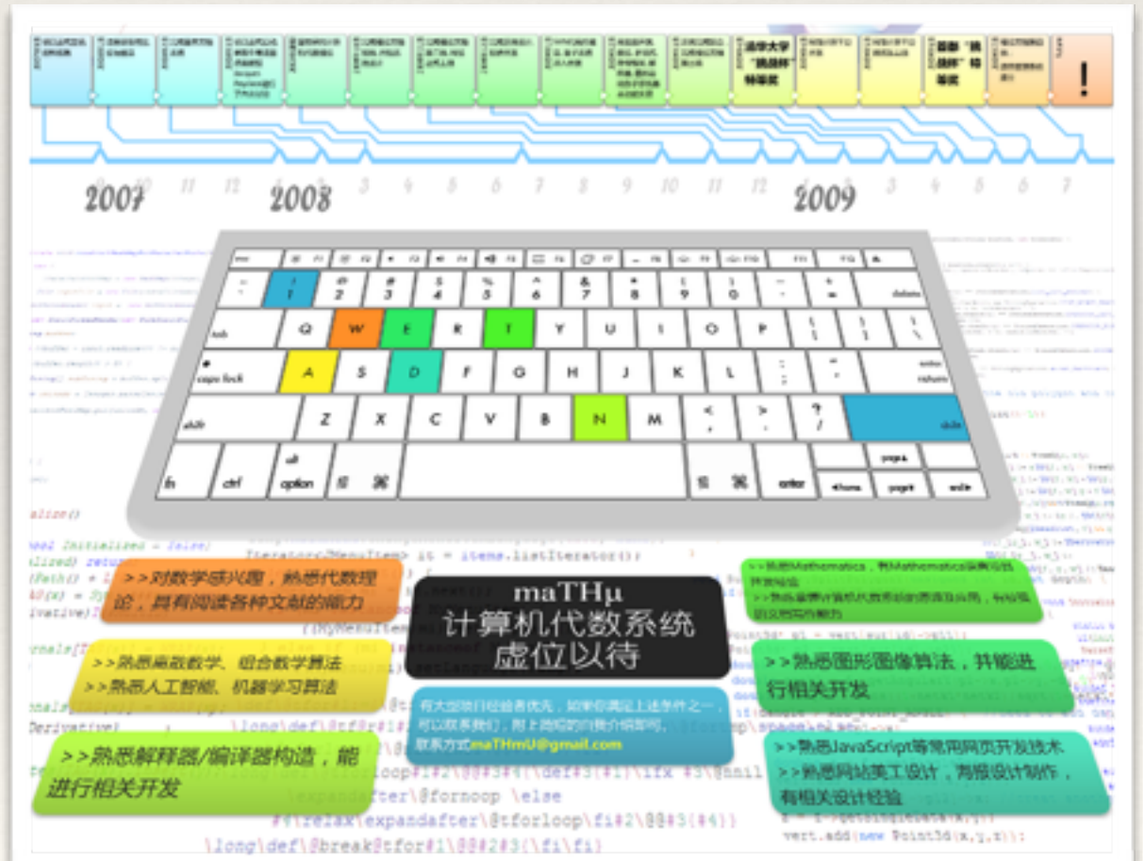
计算机代数系统*maTHμ*

网站 www.mathmu.cn

邮箱 maTHmU@gmail.com

你对数学、计算机、软件工程
或者其中之一感兴趣？
你一丝的兴趣就足以加入我们！
这个庞大的计划总有发挥你才能之处！
写出清华人自己的 Mathematica 和 Maple！





2007

秋季SRT立项，资料收集

2008

项目正式启动，
与法国教授Jacques Peyriere
进行讨论

研究、整理计算机代数理论，
查阅各类相关文献论文

注册顶级域名，建立论坛，
进行系统设计，开始初步开发

2009

搭建SVN代码库，
深入系统开发，撰写技术文档

参加2009年“英特尔杯”首届
清华大学创新创业实践夏令营

参加第十一届“挑战杯”全国
大学生课外学术科技作品竞赛
并获特等奖

清华大学学生maTHμ研究协会
成立

2010

荣获2010年华人新世界数学奖
银奖项目称号

参加第七届“挑战杯”
中国大学生创业计划竞赛
并获金奖

项目骨干同学整理撰写的
《计算机代数系统的数学原理》
一书出版

2011

与阿里巴巴旗下阿里云公司
开展合作研发

参加第四届21世纪中英
创业计划大赛，
赴英获得总决赛第三名

2012

¡Hola Mundo!

maTHμ科学计算引擎
清华人自主开发的软件
迎来云计算服务新时代

MATH
Research Lab

You Gonna ...

学习 代数
科学计算
原理

表达式化简

体验
团队项目
乐趣

编译器/解释器

图形图像

获取
学生SRT项
学分

符号微积分 ...

WebApp

加入我们：

你有一丝的兴趣就足以加入我们！
这个庞大的计划总有发挥你才能之处！
写出清华人独特的Mathematica和Matlab~

请将您的**姓名、院系、年级和联系方式**
发送至协会邮箱 maTHmU@gmail.com，
邮件标题“maTHmU协会报名”。

或在我们的人人网公共主页“*清华大学maTHmU*”
上留言并注明您的上述个人信息。

关注我们：

人人网公共主页：“*清华大学maTHmU*”
http://page.renren.com/600002817

项目网站：trac.mathmu.cn
www.mathmu.cn

特别鸣谢：
清华大学科协中心
腾掌云

Caμs校园数据挖掘平台

Lab μ (原maTHμ研究协会)

用Python写的强大的“挖掘器”
基于Django 和 MySQL 的App平台
已有若干上线运行的App
刚刚启程，已走出很远...

Now
WantsYou

如果你
精通计算机安全
或喜欢Web开发
或者仅仅对左边的名字有感觉

你可以
尽情展示你的设计才华
学到更多Web开发的知识
让更多的人看到你的成果

加入我们
发送
姓名 + 院系 + 年级 + 手机
到 13381087119 或
hello.zhang1992@gmail.com 或
aluex.cpp@gmail.com

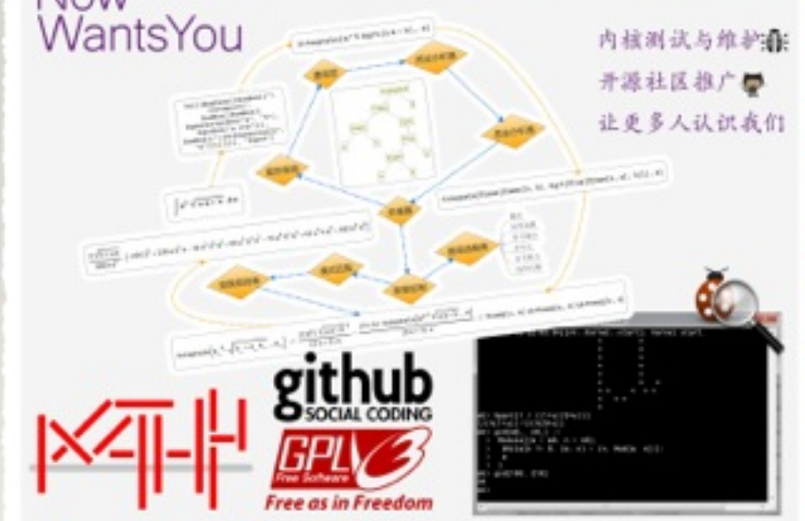
了解更多
请访问 app.mathmu.cn
人人“清华大学maTHmU”留言

maTHμ科学计算引擎

Lab μ (原maTHμ研究协会)

2009年，全国“挑战杯”特等奖
2010年，华人新世界数学奖银奖
2011年，与阿里云公司合作研发
etc.

Now
WantsYou



如果你
对编程语言感兴趣
了解C++或Mathematica/Matlab
或用过任何编译器/解释器

你可以
参与大型软件项目团队开发
亲手完善维强内核解释器
在maTHμ找到你的志同道合的伙伴

加入我们
发送
姓名 + 院系 + 年级 + 手机
到 18811369947 或
codewdy@gmail.com 或
zhouerjin@gmail.com

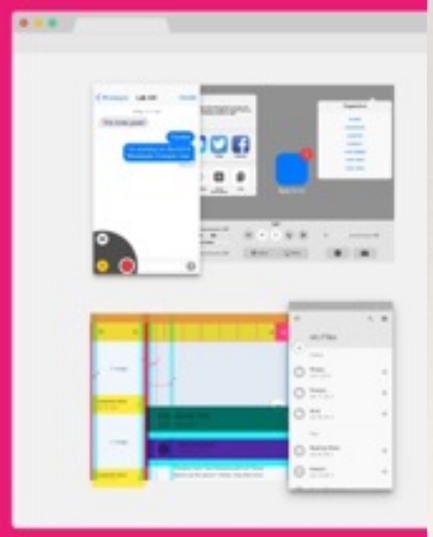
了解更多
请访问 www.mathmu.cn
人人“清华大学maTHmU”留言


停
生命不止　上网不停
http://tunet.lab.mu
全新TUNet自动连网助手


留女


HACKATHON
[dev time:@"12hrs"].setDate("20140301")
android
iOS

Join Us Designers!



清华大学学生Lab μ研究协会

我们需要你的创意
科创社团Lab μ · 2014年春季招新
www.lab.mu 哞！实验室

Join Us Developers!

```
"Mobile Dev": [
    iOS  gradle
    COCOAPODS
    ...
],

"Web Dev": [
    node  GRUNT
    ANGULARJS  YO
    BACKBONE.JS
    ...
],

"System Admin": [
```

“Simplify our campus life”

“Design our Code”

– Lab mU

Seeing the world
through
the eyes of the
customer

vs.

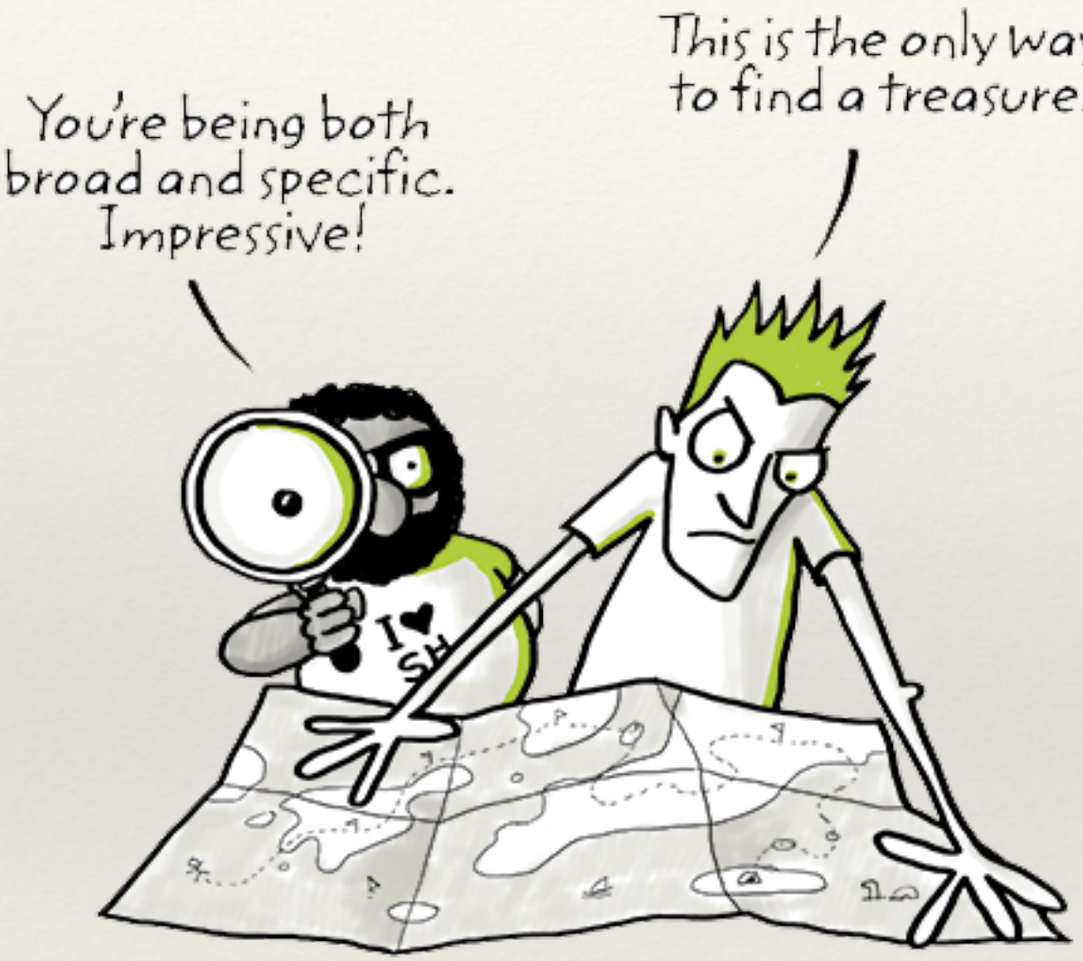
Seeing the world
through
the perspective
of the company

A lesson…

Who is our Customer?

from MITx: 15.390x

1. Conduct Market Segmentation



A. Brainstorm
B. Narrow
   - market opportunity = specific end users + unmet needs
C. Primary Market Research
   - interview!

2. Select the Beachhead Market

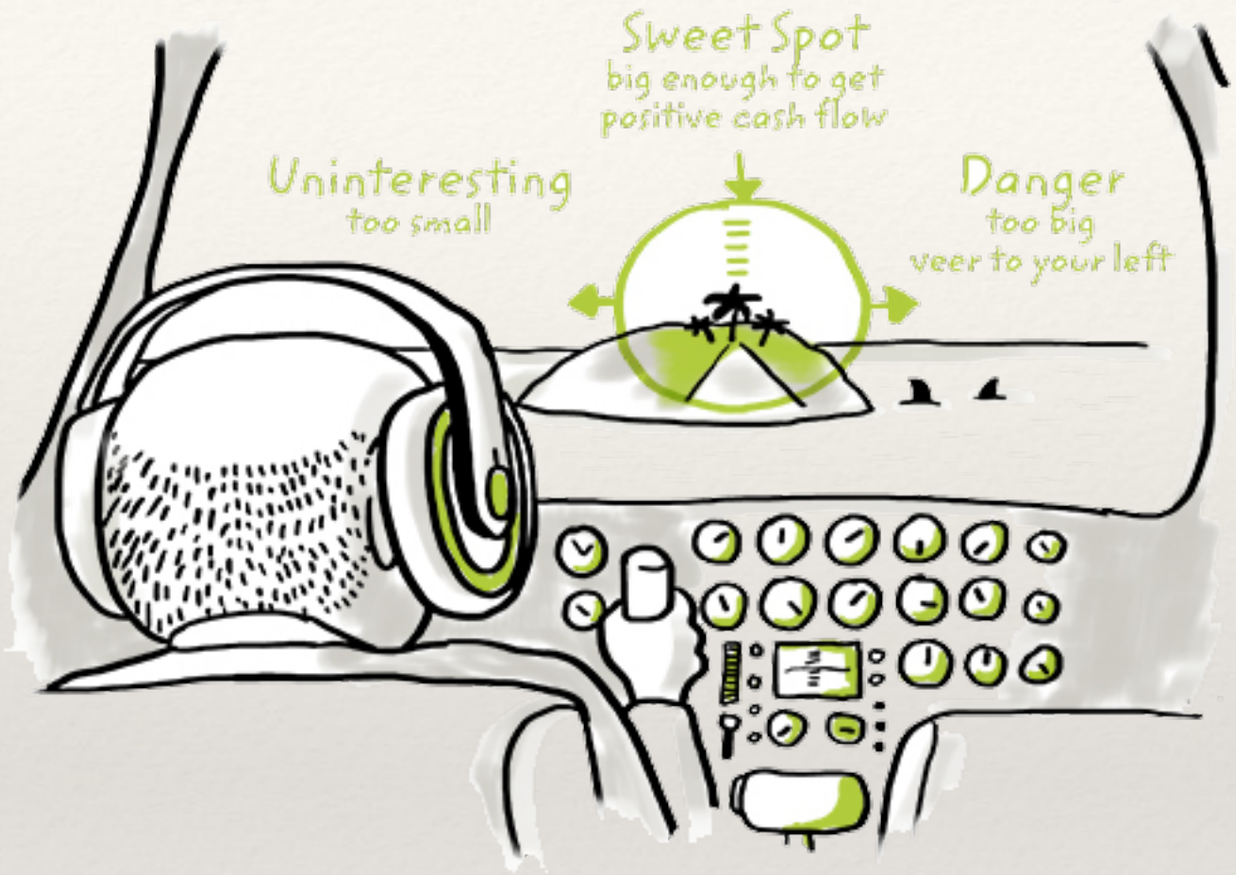
Patience

Focus

3. Develop an End User Profile

Stay focused on
a key group of
relatively homogenous
end users

4. Estimate the Total Addressable Market Size



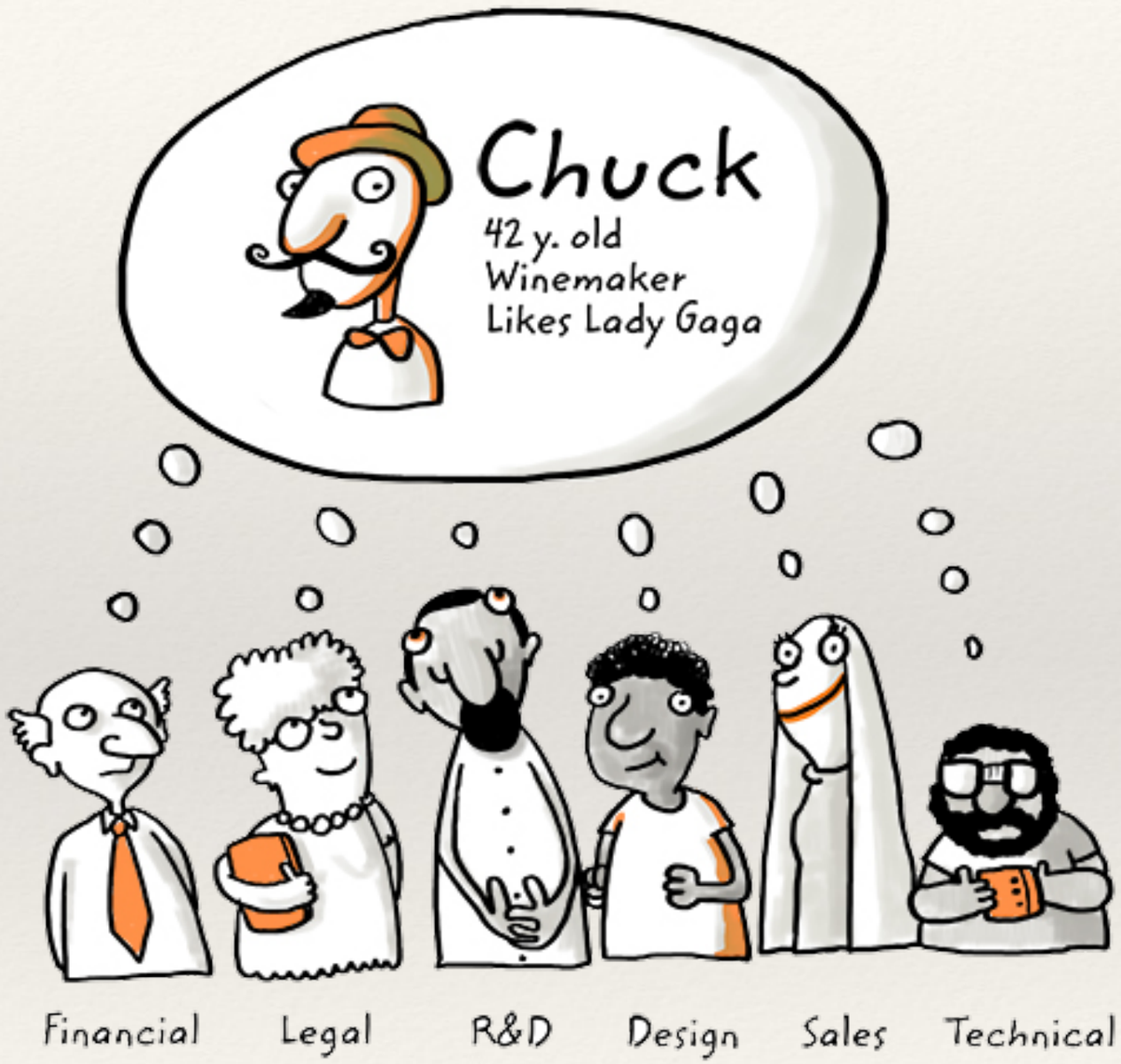
Beachhead TAM calculation
is your sanity check
that you are headed
in the right direction

5. Profile the Persona for the Beachhead Market

ONE

Person

that best represents
End User Profile

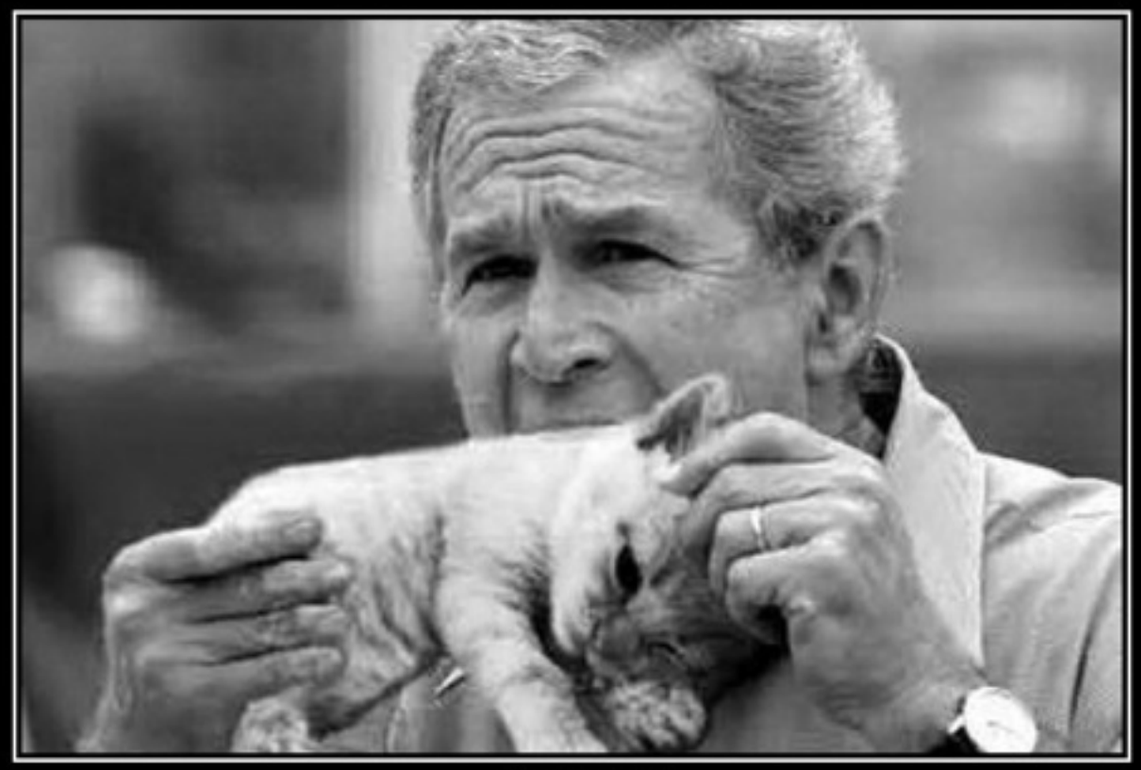


Then…

ULTIMATE GOAL

Find a Homogeneous Group of Target Customers.

- Who experience a similar need
- To whom you could deliver your solution at similar cost
- And who would buy it at similar price



Dive into Lab μ:

Game Framework & Level Up How-to

& today's remain schedules

lab.mu

	Develop	Design	User & Market
TUNet Wechat Treehole Caμs Platform etc.			

Find the place where your interest and strength rests!

Design Track

- Design discussion
  - Trends on Mobile and Web design
  - UX of our products
  - Then realize them!
- Communicate with Dev & User/Market people
  - The art of complex needs

User & Market Track

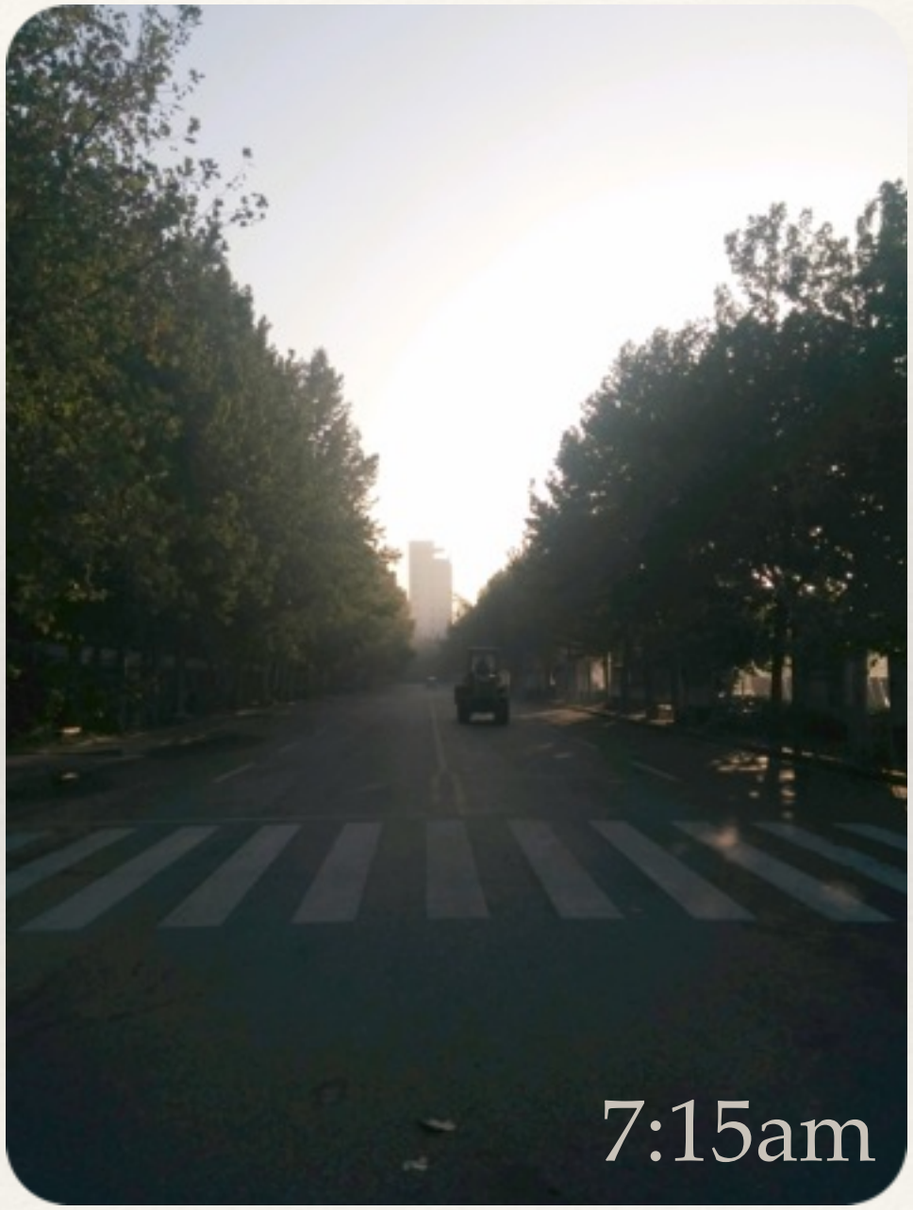
- Who is our customer?!
  - Brainstorm, Narrow down… Persona
  - Interview with potential customers/end users
  - Promotion
  - Keep our team focus and on the right direction
- Collect user feedback
- Find opportunities
  - new market, SRT, contests, investors etc.
- Push and [pull | pop | nice]

Tech Track

- Tech Intro Lectures
  - ¡Hello world! Plenty of materials.
- Code Review
  - Big brother is watching you…r code!
- Advisors
- Collaborate with designers & user/market people

Weekly Group Meetings

- Group Meetings
  - DevOps
  - DesignOps
  - Brainstorm
  - Narrow down ideas
  - Split tasks
  - …



Today's Schedule

- Intro to Projects (~25min)
  - TUNet
  - Wechat Treehole
  - Caμs Open Platform
- Self introductions (~40min)
- Intro to technology lectures and design discussions (~5min)
- Basic collaboration (~15min)
- Break & Talk Freely (20min)
- Github collaboration & Tech Skill Survey (~20min)