Open, But Not As Usual.

How to disrupt an industry, but make more money for everyone.

Introduction.

I’m going to babble about Mobile Phones.

- What I don’t like about them
- What I want to do about this
- And revolutionize our industry
- How I can help make you money.

“Every good work of software starts by scratching a developer’s personal itch.”

--Eric S. Raymond, *The Cathedral and the Bazaar*

I've got two big itches.

That I've been wanting to scratch for years.

- I can never upgrade or customize my phone. I have to buy a new one every few months if I want some new (software) feature to work.
- Mobile platforms are proprietary and scattered. Developers have no easy way to create applications and deliver services that span all users.

So Listen Up.

And I'll tell you why I love the GSM Market.

- **GSM is standardized. It works the same, just about anywhere in the world.**
- **The GSM market is totally saturated. Big handset makers must sell millions of phones to make profit.**
- **Mobile Internet is stagnant. Applications and services have yet to explode into a booming industry.**

Ecosystems gone bad.

Where did we all go wrong?

	PC	Mobile Phone
Service	Google, Yahoo, AOL, Windows Live, YouTube	
Apps	Web browser. All kinds of vertical niche applications.	No Solution
GUI	Common “desktop” paradigm	
Input	Generic: usually keyboard, mouse, and monitor	Specialized: keypad, buttons, and inconsistent (and often limited) screen space
HW	x86 (Intel, AMD, VIA)	Lots of different platforms

Source: Henry Holtzman (MIT Media Lab)

Where am I going with all this?

There really is a point to all this whining.

- Ignore the trends in the current market
- Create our own market
- Give our customers what they really want
- Build a new platform
- Help everyone in this room.

“How will we understand the needs of diverse customers spanning the entire world?”

So that “ignore the trends” stuff just blew up in my face, right?

“We can’t. We never will. And we shouldn’t even even try.”

Sean Moss-Pultz, just now.

Way #2 to skin a cat.

Instead we build a mobile phone that

- Has only the most basic features
  - easy phone dialing
  - easy messaging
- And great hardware
  - beautiful screen
  - nice to hold in your hand
  - easily expandable memory

Oh and well, one more feature.

An adaptation of my favorite command in all of computing.

```
root@filbuntu:~# apt-get install
```

The Application Manager.

Captain Obvious, is that you calling?

- Create an application that lets end users install *exactly the applications they want!*
- Then have the system keep itself updated.

Image by www.bluelinecomics.com

Sounds great.

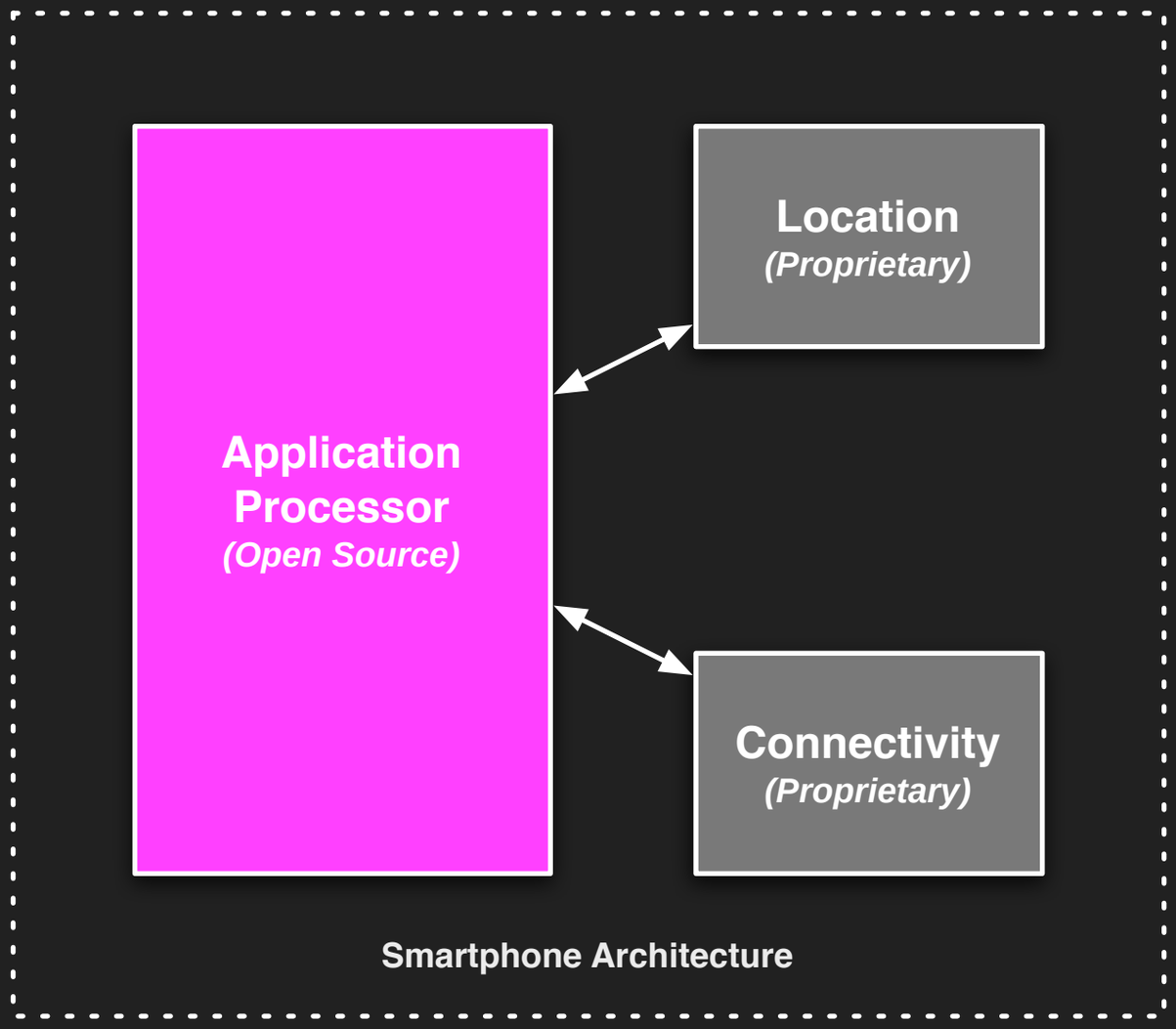
But install *WHAT* applications?

- There are hundreds of thousands of brilliant free applications available for Linux.
- So we need some way to use Linux applications on this handset.
- Then we can concentrate on the framework:
  - UI -- Common look & feel for end users
  - Data -- Common storage model for applications
  - Libraries -- Common platform for developers

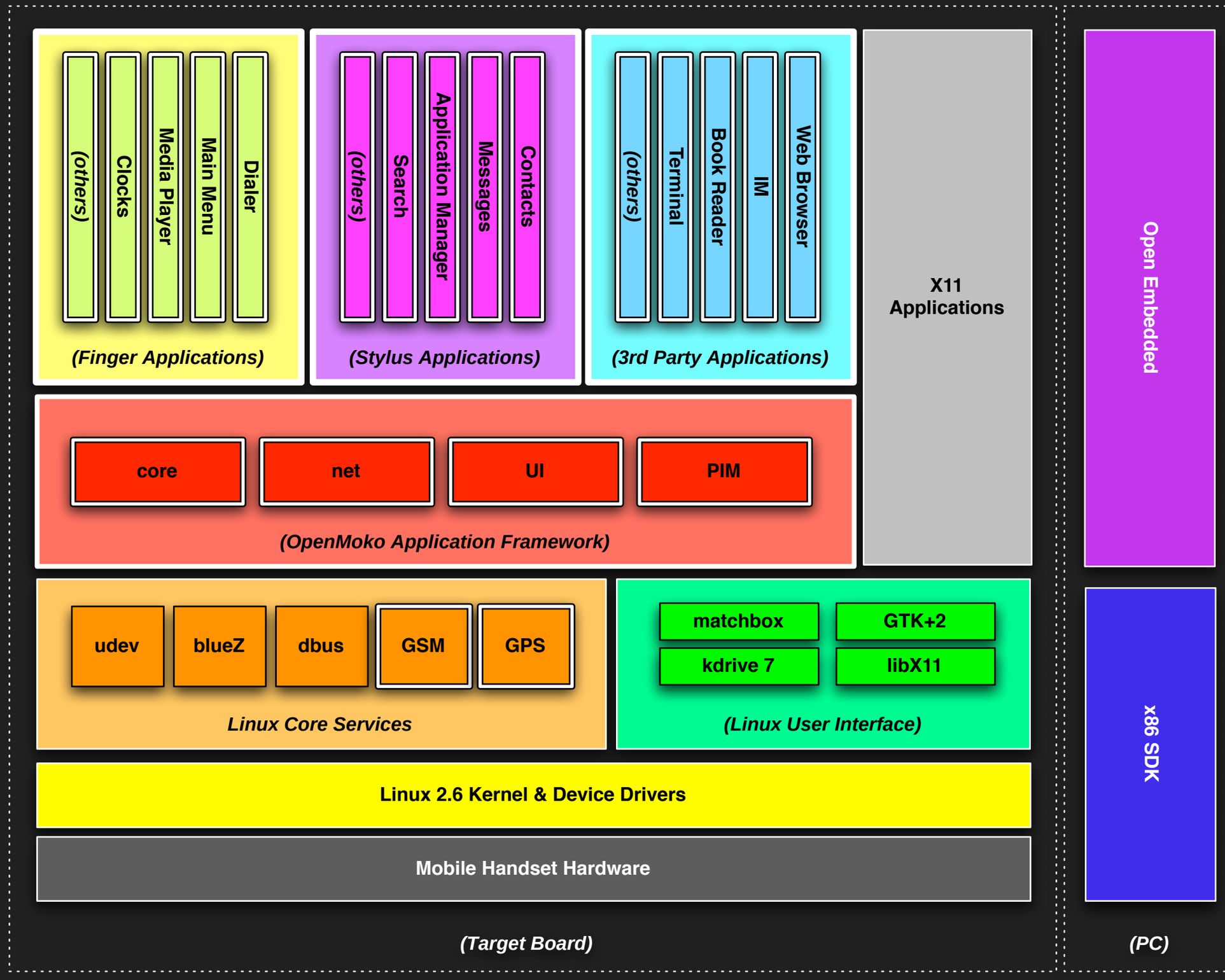
How to use Linux Apps.

On a Mobile Phone. Part 1.

- Use a smartphone architecture to isolate systems
- Use an Open Source framework to run applications
- It looks something like this...



Open Source based Architecture.



Definition: OpenMoko

Pronunciation: 'O-p&n, 'mO-(")kO

- **“Moko” is short for Mobile Kommunikations.**
- **“K” is a tribute to all hackers around the world that build software that drives innovation into the platform.**
- **“Open” means that developers around the world can evolve the platform in anyway they like.**

“So you have this phone that geeks and coders love...but I can hardly program my VCR. You think I’ll buy this?!”

My Dad, (When I came home after 6 months to tell him my latest “great” idea.)

“Most Geeks think they can change the world with technology. Empower them with the right tools and they just might do it.”

Me, again (a true Geek at heart)

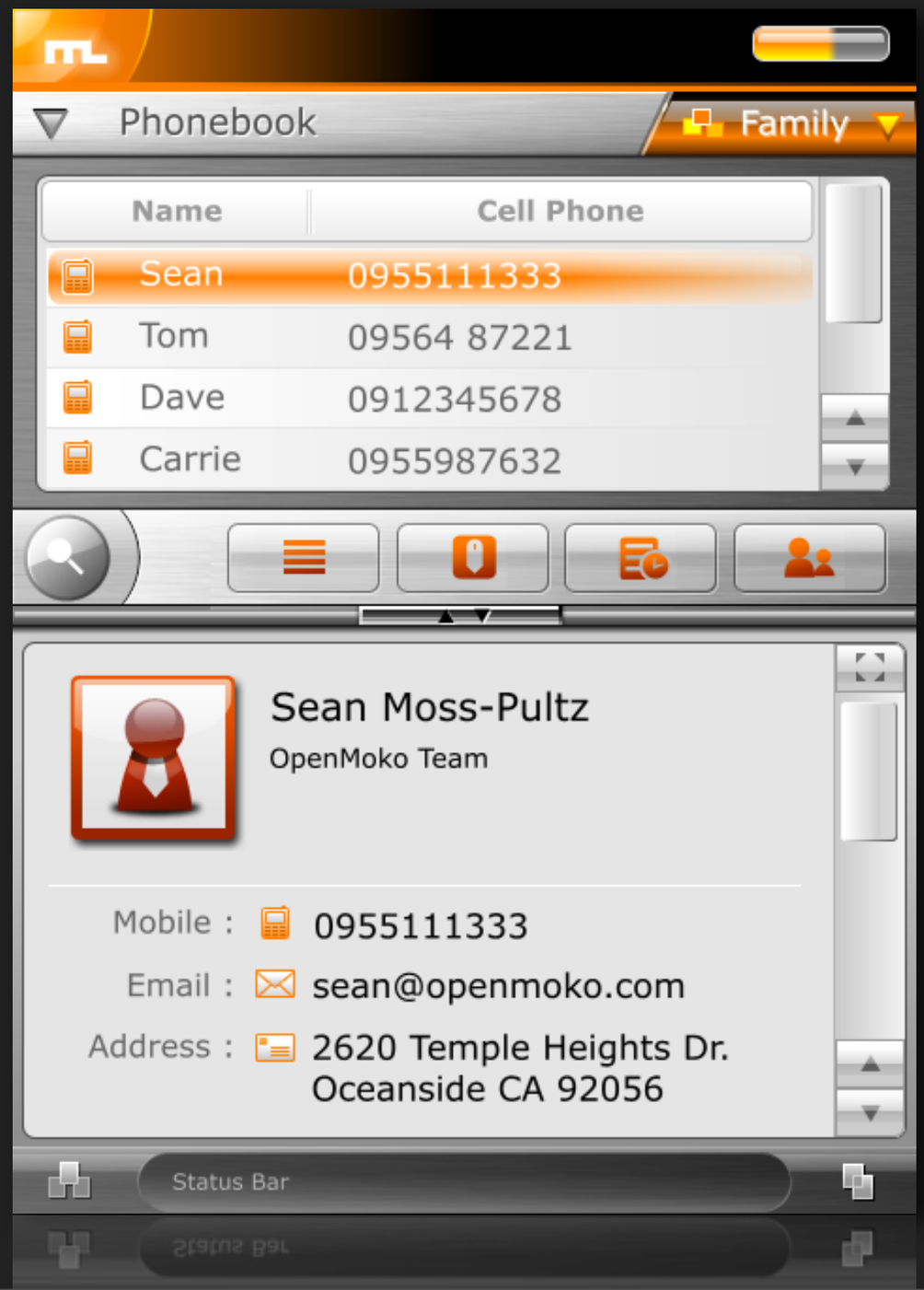
Give the Geeks what they want first.

You'll get your cake soon enough. Here's the Big Picture:

- **Make a great mobile phone running Open Source Software.**
- **Give away our SDK. Target everyone who loves to tinker with electronics.**
- **Help build a worldwide community of developers working together to write and port applications.**
- **Guide them in creating kick-ass looking and easy-to-use applications. (This is straight-forward because our framework is so good.)**
- **Watch our application list grow by the day.**
- **Now your mom and dad have all the applications that they want, too. This is the part where you eat your cake.**

OpenMoko UI Preview.

Finger (and stylus) licking good.



“How are you going to make money for everyone in the industry?”

Vineet Gupta, Sun’s Java CTO, (After first hearing about my idea for an open source platform.)

Mobile Standardized.

Mobile Phone, say hello to Apps & Services.

	PC	Mobile Phone
Service	Google, Yahoo, AOL, Windows Live, YouTube	
Apps	Web browser. All kinds of vertical niche applications.	*Custom Applications*
GUI	Common “desktop” paradigm	OpenMoko 2007
Input	Generic: usually keyboard, mouse, and monitor	Specialized: keypad, buttons, and inconsistent (and often limited) screen space
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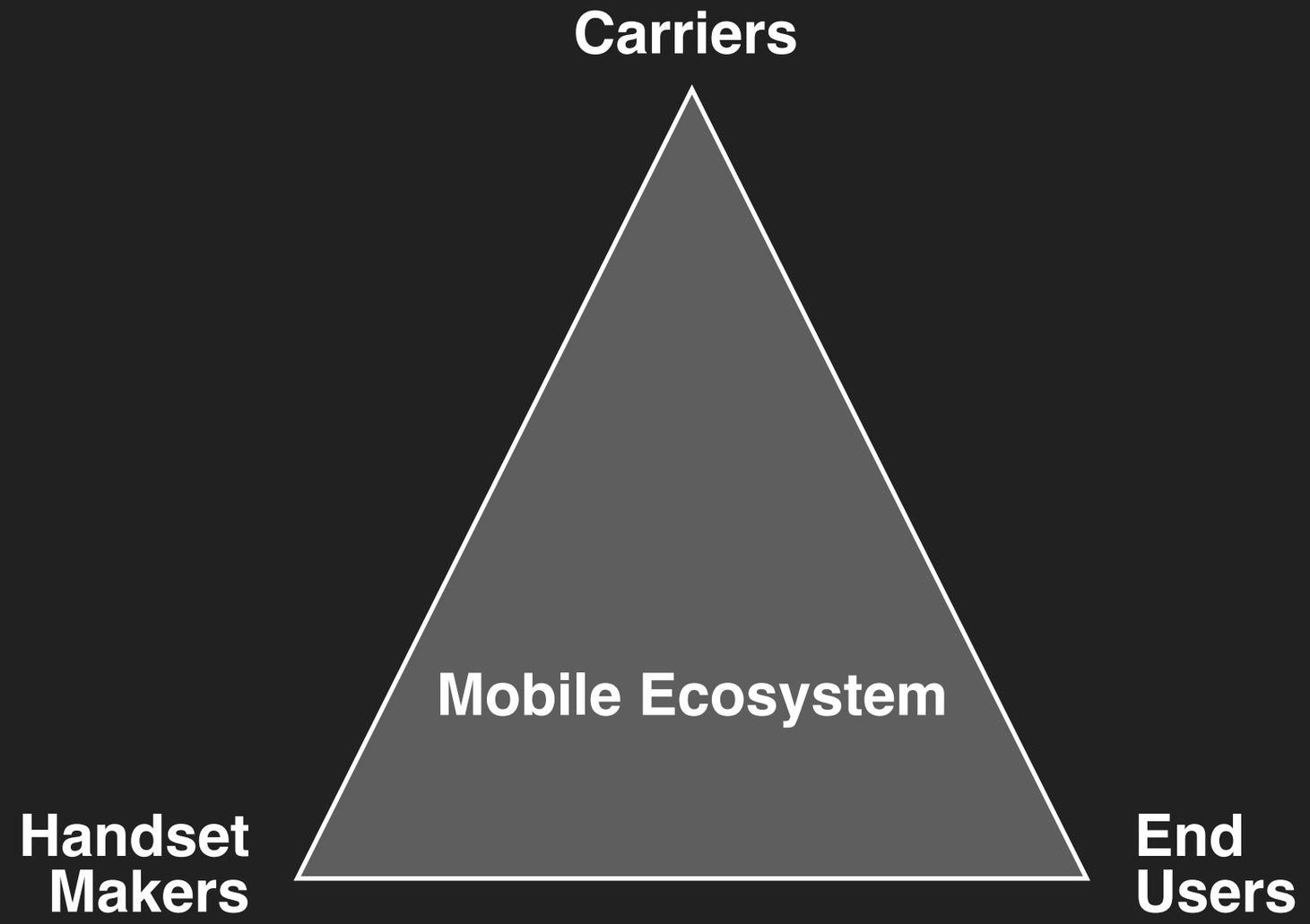
Source: Henry Holtzman (MIT Media Lab)

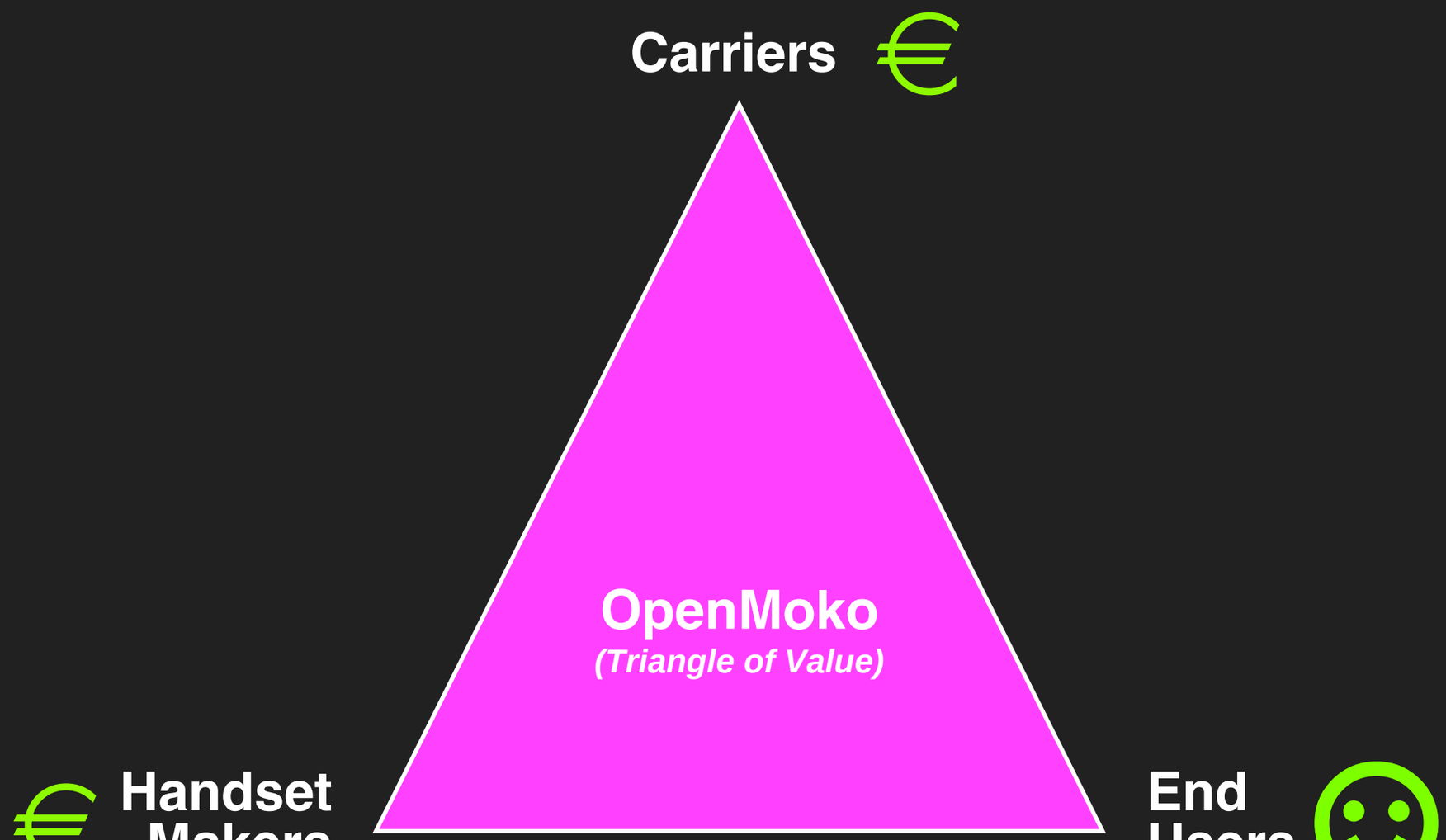
The Mobile Ecosystem.

It’s all about balance.



OpenMoko Triangle of Value.

Enjoy the economics of openness.



OpenMoko for Handset Makers.

A better lens to focus on your real value.

- Improve your margins
- More R&D dollars to spend on visible value
- Use the best of open / commercial software components
- Faster time-to-market.

R&D

+ OpenMoko

€€€

OpenMoko for Carriers.

Applications are the next ringtones.

- More data airtime (better ARPU)
- Lower both Churn and SAC
- Offer compelling new services
- Enter new Vertical Markets.

Phone

\+ OpenMoko

€€€

OpenMoko for End Users.

It's about more power to the people.

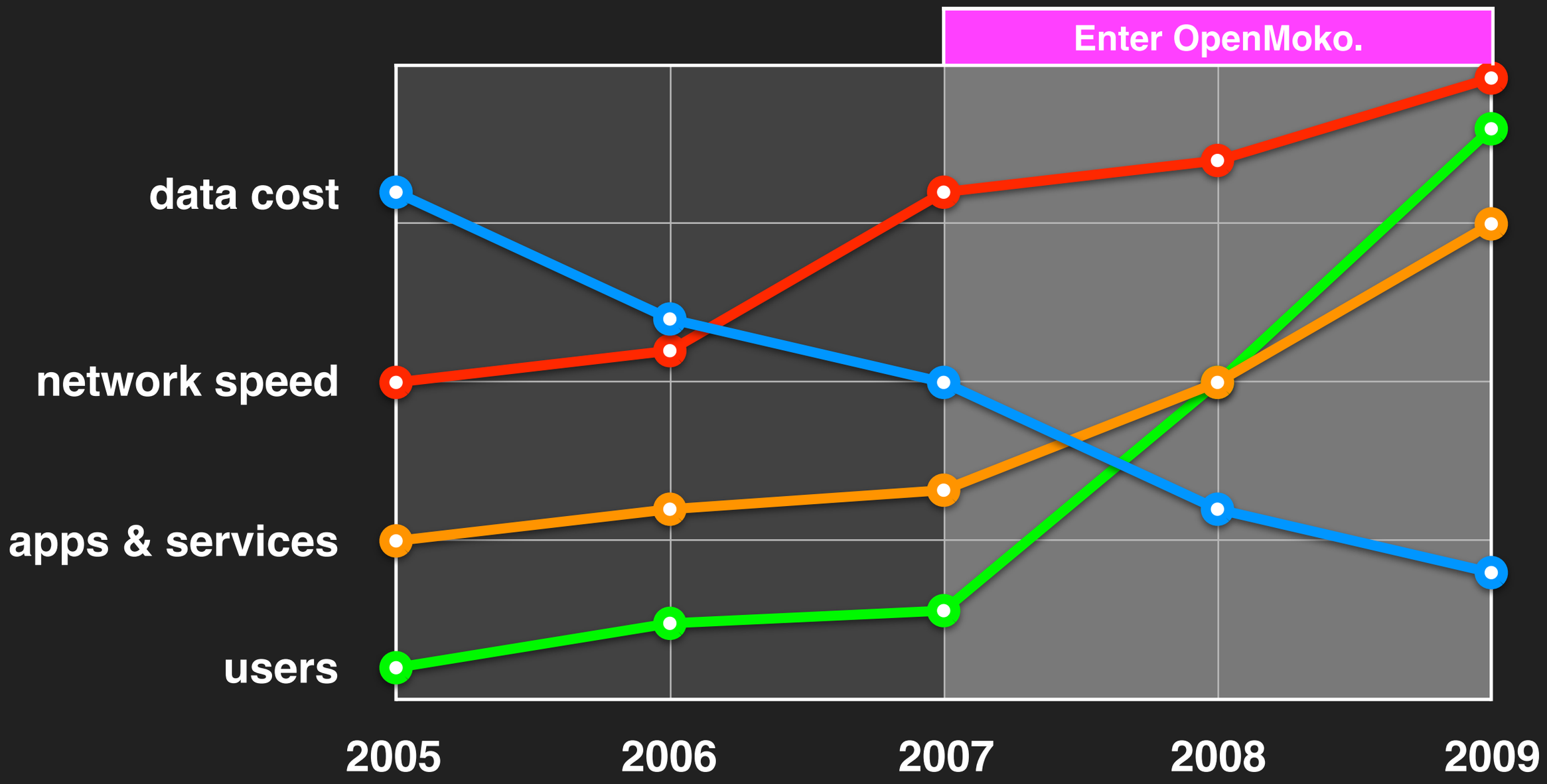
- Customize your phone any way you see fit
- Install exactly the applications you want
- Automatically keep your phone updated
- Unlock the true power of your phone.

Carrier

+ OpenMoko

Open Ecosystems.

Move over Web 2.0. Here comes Mobile 2.0.



Source: Professors Butt and Hole

Absolut Open.

Special thanks to FIC.

- The most open-minded company in all of Taiwan
- David “The Godfather” Huang (My Boss)
- And Timothy Chen
- Without their support, an open source phone would still be only a dream.

★ *The Neo1973 Smartphone from FIC. On Sale January 2007!*

Thank You.

Sean Moss-Pultz
A Geek (at heart) with two big itches

Open Bar.

We’re at the American Hotel over the bridge.