

Re-Thinking Information Technologies and Services at National Laboratories

c @ anl.gov

April 2009



Argonne
NATIONAL
LABORATORY

2,861 employees

614 students

4,000 faculty users and visiting scientists

23 scientific program divisions

\$560M total funding

99 buildings on 1500 acres

4.7m GSF building space



Argonne
NATIONAL
LABORATORY

Information Services

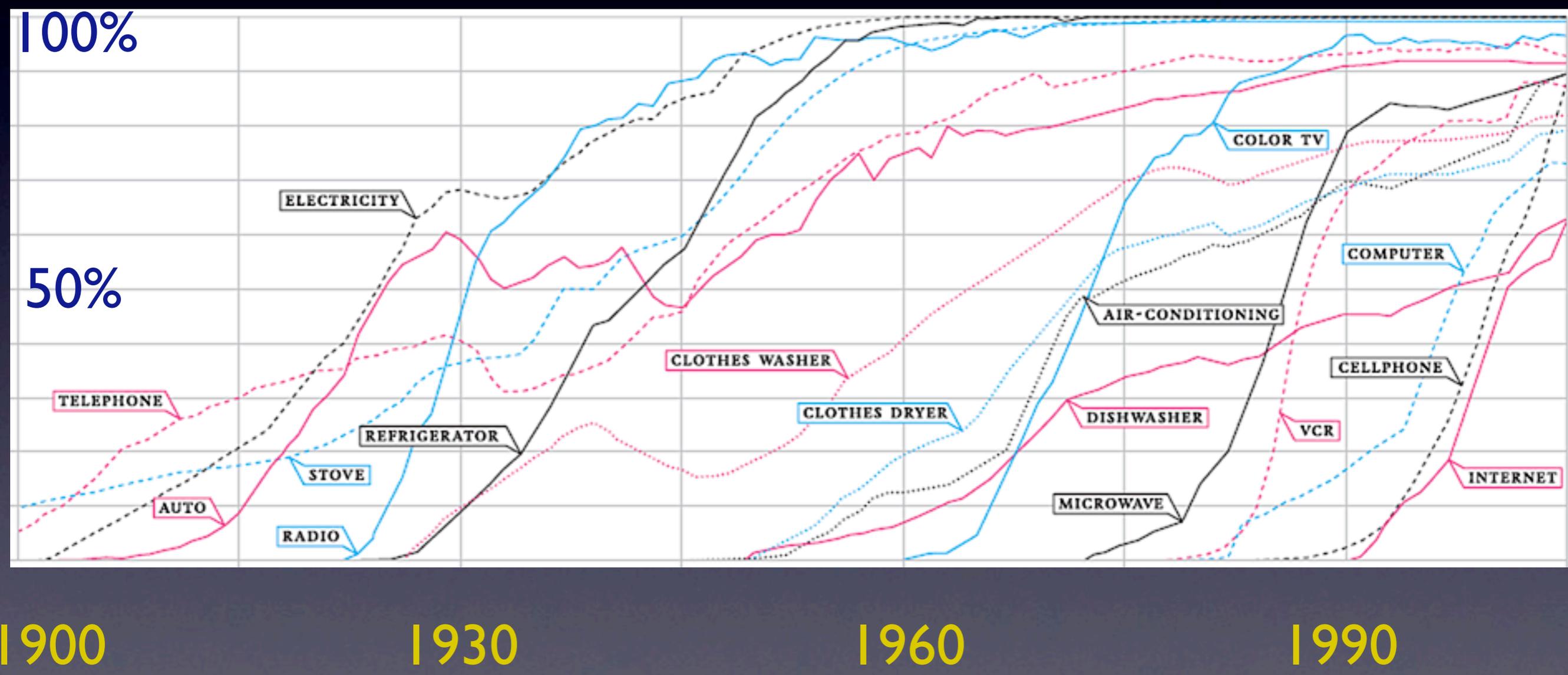
Information Infrastructure



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Services

Adoption (% of US Households)



1900

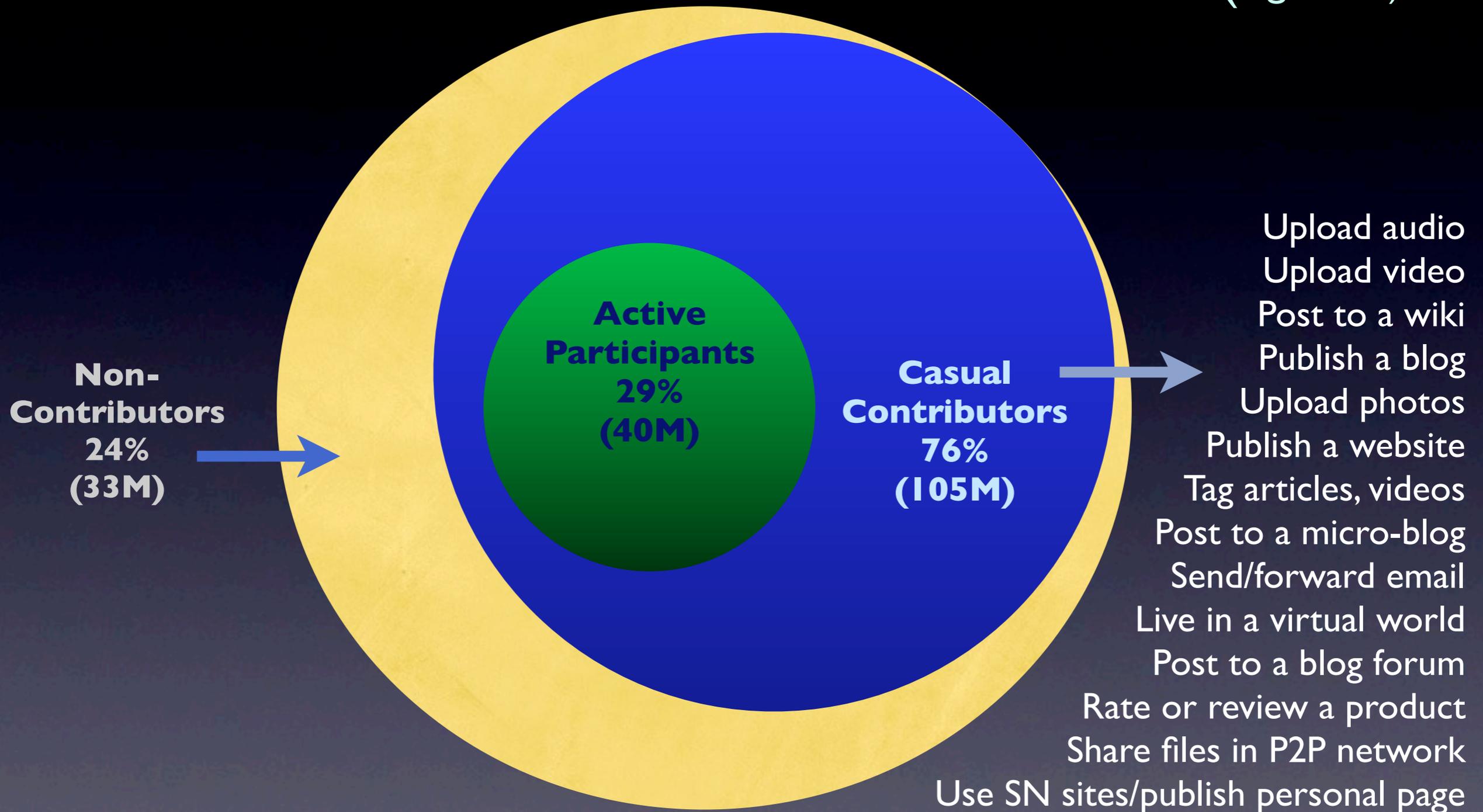
1930

1960

1990

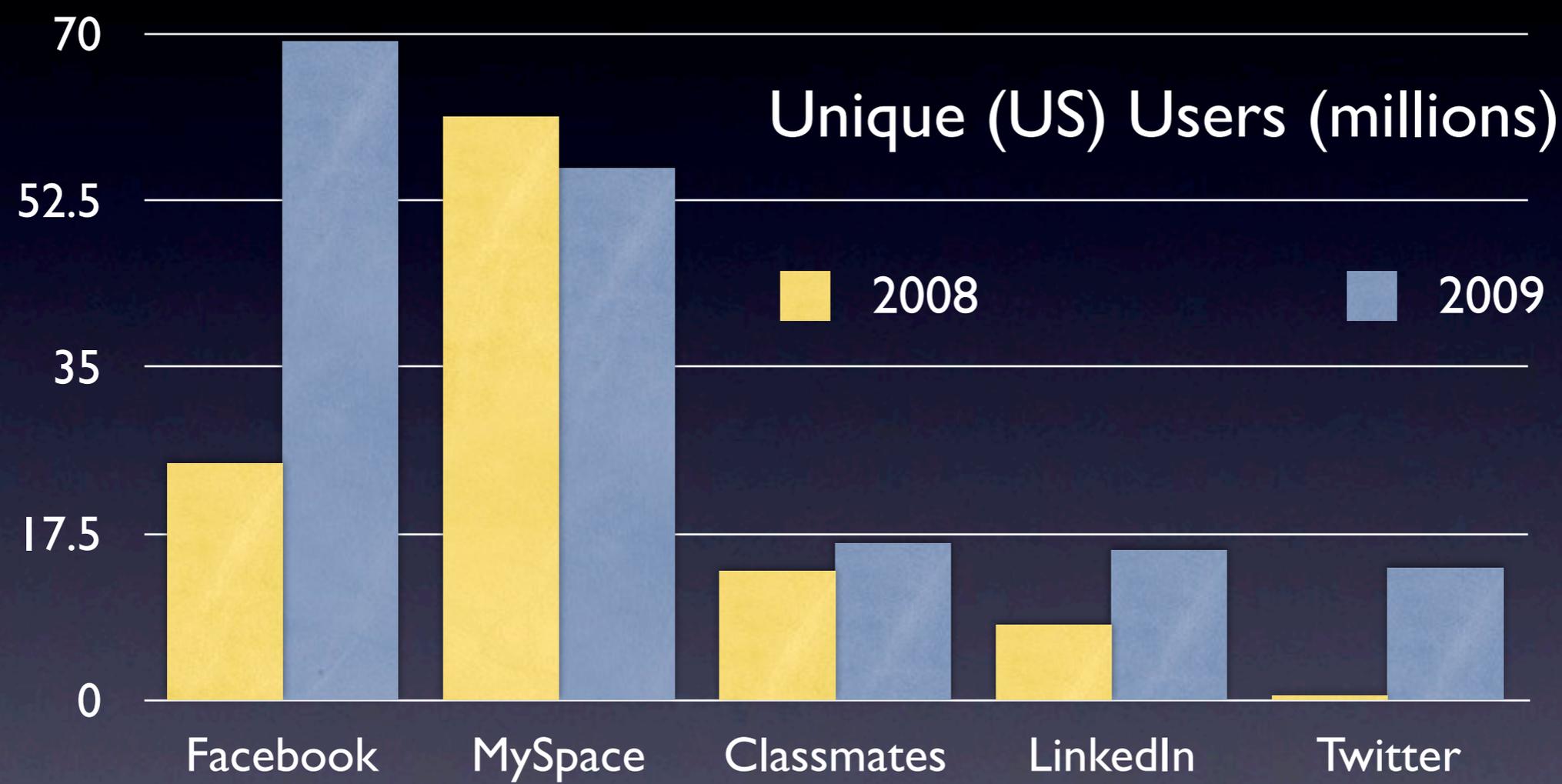
138M U.S. Broadband Users

(Age 13+)



Rate of Adoption





Metcalfe's Law

“With the recent update to Windows Live, we are continuing with the vision of enabling our *500 million customers* to share and connect with the people ...”

Dare Obasanjo, Live Services Program Management team.

Select from your contact lists

 Windows Live    

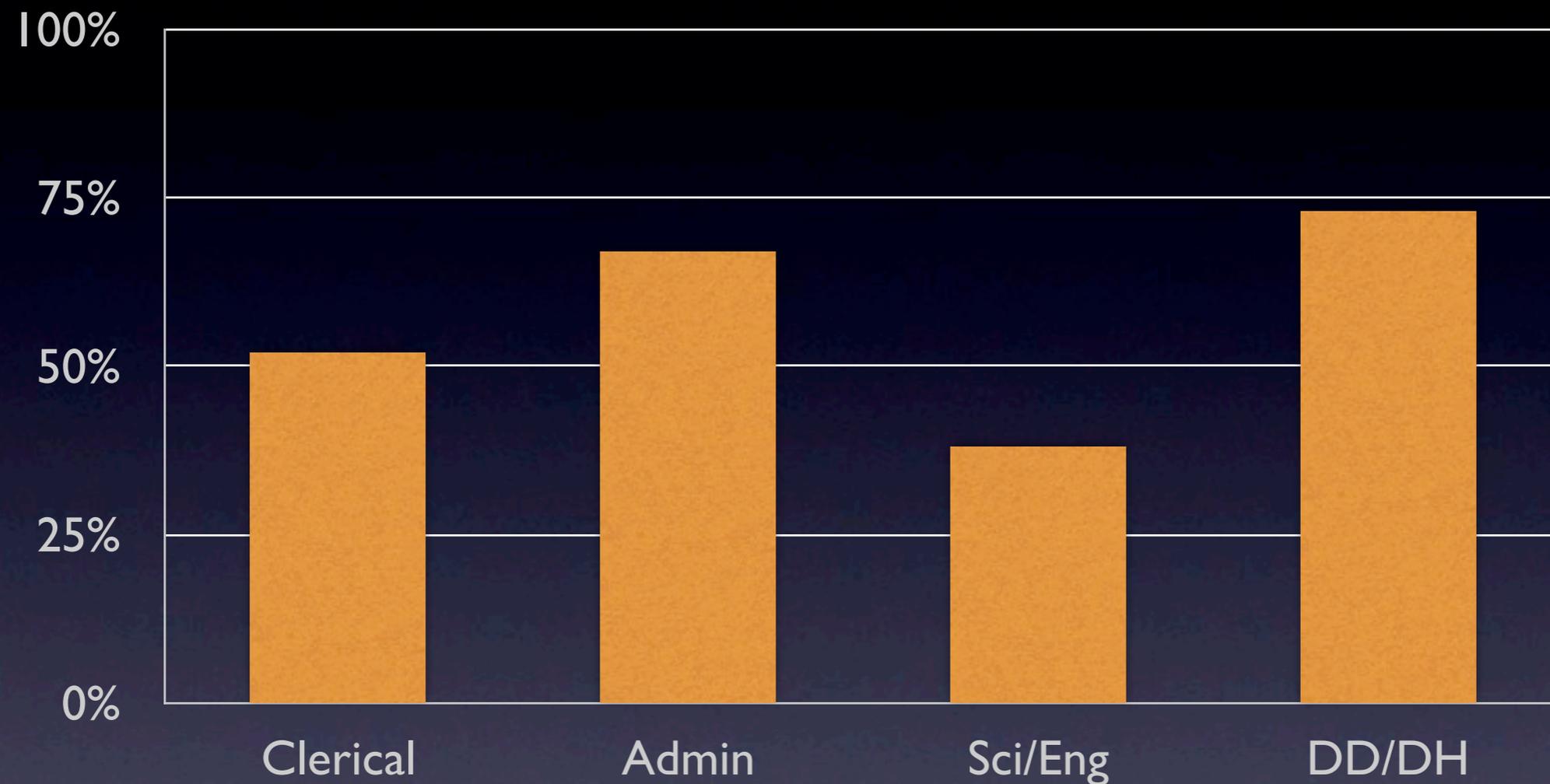


You have 43 contacts you can add to your profile or Messenger.

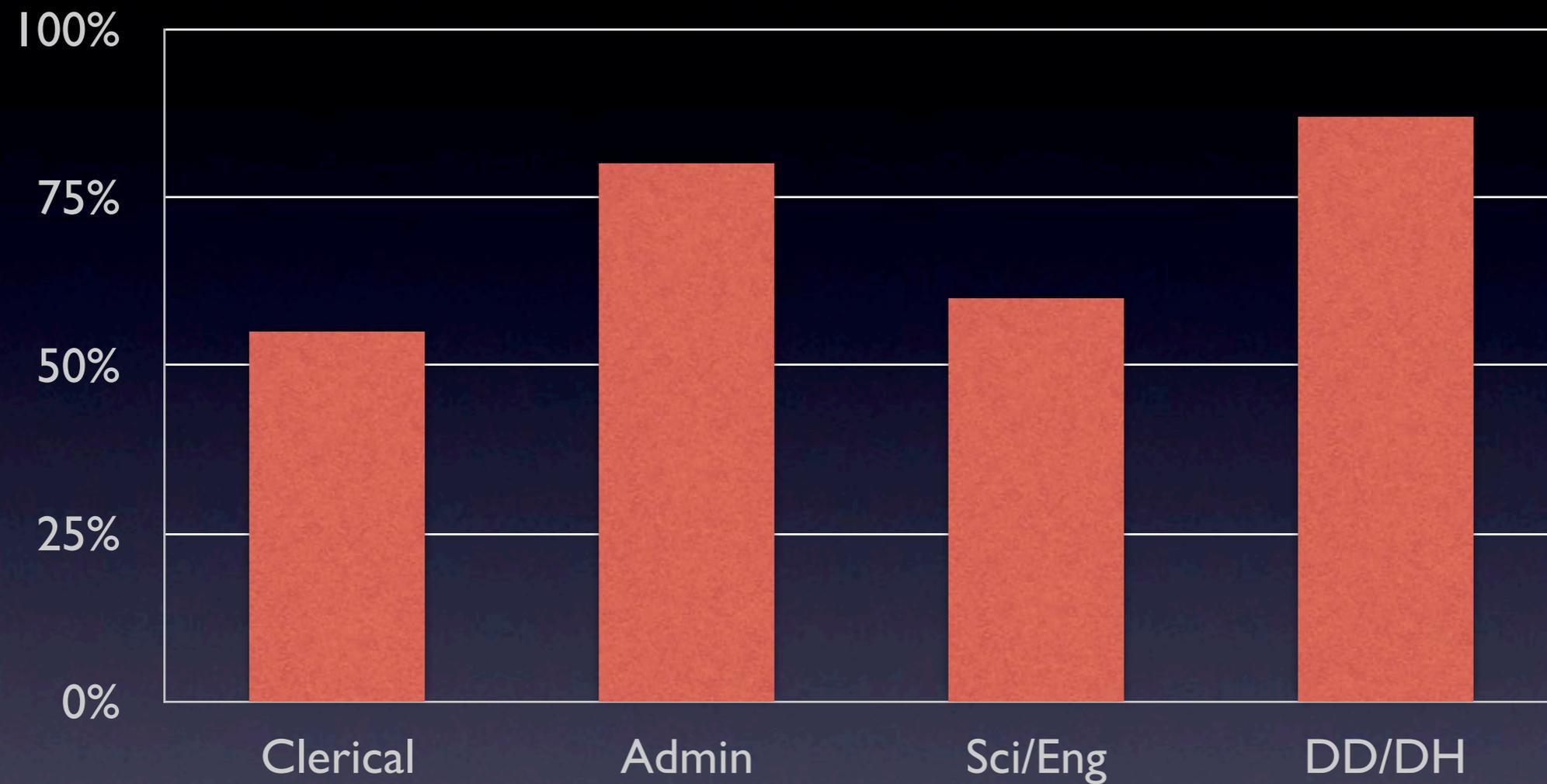
Costs

Create
Distribute
Consume

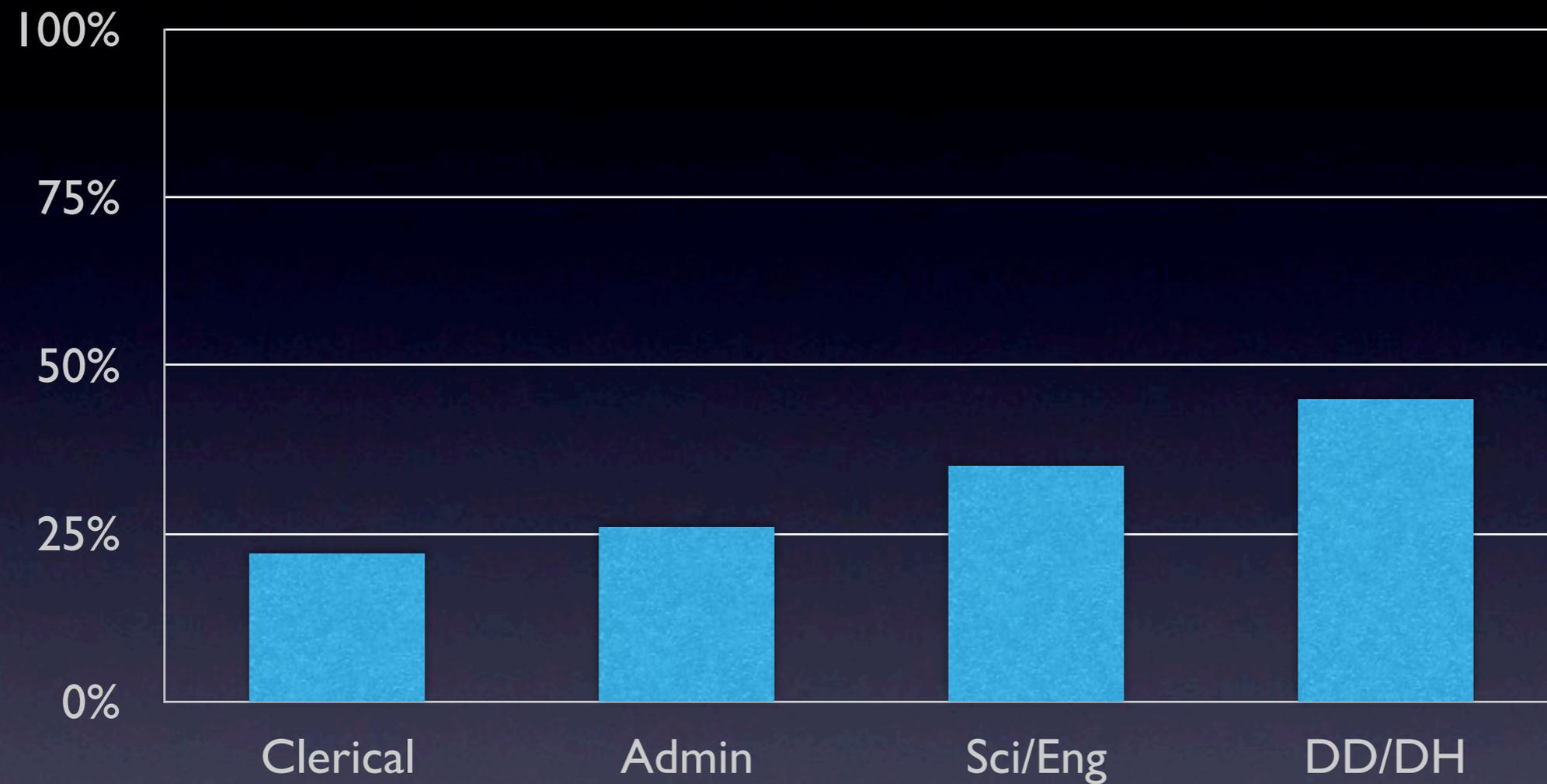
800 person survey, May 2008



“I spend more than an hour a day managing email.”



“I am overloaded with email.”



“I miss action items in email.”

A

Wall Info Photos Boxes +

Update Status Post Link Add Photos Causes Add Video

What are you doing right now? Post

Actions visible to friends:

Stories are published when you edit your profile information, join a new network, or update your Status. Also publish stories when you...

- Remove Profile Info
- Write on a Friend's Wall
- Comment on or like a Note
- Comment on or like a Photo or Album
- Comment on or like a Video
- Comment on or like a link
- Post on a Discussion Board
- Add a Friend
- Change Relationship Status
- Leave a Network

structure

Arg

Story Types											
Show More											
Default											
Show Less											

How do I use this? Reset All

control

More About These Friends

You can select up to 185 friends that you find interesting. You will get News Feed stories about these people more frequently.

Person:

More About...

Less About These Friends

You can select up to 185 friends that you prefer not to see in your News Feed. You will only get stories about these people if nothing else is available.

Person:

Less About...

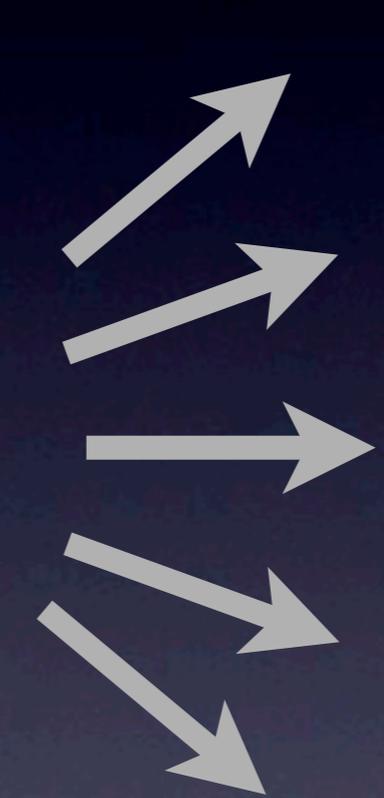
control

Training

Purchasing

Travel

iCatch



email
RSS
ICS
SMS
Tasks

structure

FEEDBACK FORM

Share something with **My Colleagues** ▾

Update

Attach file



Betty Waterman in reply to **Joe Keslin**: setting up webdav connection to Stellent -- guess it's time to RTFM...
7 hours ago in *CIS Web Services* - from Desktop ✉ 💬 [reply](#)



Daniel P. O'Brien in reply to **Donna Keto**: I see the stock market approves of the stimulus package.
8 hours ago ✉ 💬 [reply](#)



Joe Keslin: I have installed the unit-tested ArgonnePeopleLookup Component on content-test. Feel free to take a look and test it out. Thx!
8 hours ago in *CIS Web Services* - from Desktop ✉ 💬 [reply](#)



Matt Olech: Twitter based apps to help get things done
<http://tinyurl.com/ccfgzb>
9 hours ago ✉ [reply](#)



Charlie Catlett: interesting talks w/ AMZN and MSFT about interest in building a DOE cloud (a stimulating project!)
10 hours ago ✉ 🗑 [reply](#)



Welcome
Charlie Catlett (edit)

Get Started

- Complete my profile
- Download desktop client

Follow Your Colleagues

-  **Tim Ortiz** ✕
[FOLLOW](#)
-  **Ben Kress** Technical Training Developer ✕
[FOLLOW](#)

[View All](#)

My Feed 

- Received ☰
- Sent ☰
- All ☰
- CIS Web Services ☰



Facebook | Argonne National Laboratory

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Argonne National Laboratory

Wall Info Events Photos RSS/Blog Boxes

Argonne National... Just Fans

Argonne National Laboratory updated My Flickr Photos.

April 12 at 12:30pm

Matt Howard likes this.

Argonne National Laboratory

Charging our battery | courier-journal.com | The Courier-Journal

Source: www.courier-journal.com

More cars and trucks are built in Kentucky than in any state other than Michigan and Ohio, but the vehicles we're making today aren't the ones we'll be driving tomorrow.

April 12 at 12:02pm - Comment - Like - Share

Argonne National Laboratory

Glass-blowing artistry comes with scientific family twist -- chicagotribune.com

Source: www.chicagotribune.com

Fourth-generation scientific glass blower Joseph Greger fabricates custom glass laboratory instruments at Argonne National Laboratory. (Tribune photo by Candice C. Cook.)

Located outside of Chicago, Argonne National Laboratory conducts basic and applied research in energy storage, alternative energy and efficiency, nuclear energy, national security, and biological and environmental systems.

Information

Applications

Find: Q p

next Previous Highlight all Match case

Done

Flickr: Argonne National Laboratory's Photostream

http://www.flickr.com/photos/argonne/

flickr Home The Tour Sign Up Explore

Argonne National Laboratory's photostream

Transportation modeling

Transportation infrastructure

Crash-test simulation

Plug-in hybrid electric vehicle (PHEV) battery cells

Nature 8 photos

Aerial photos 299 photos

Engineer Ron Kulak of Argonne National Laboratory's Transportation Research and Analysis Computing...

Updated on Apr 23, 2009

0 comments

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0 comments

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Find: Q p

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Done

YouTube - ArgonneNationalLab's Channel

http://www.youtube.com/user/ArgonneNationalLab

YouTube Videos Shows Channels Community Upload

Argonne National Laboratory

Joined: April 21, 2007

Last Sign In: 3 weeks ago

Videos Watched: 25

Subscribers: 10

Channel Views: 1,832

Argonne National Laboratory is one of the United States Department of Energy's oldest and largest science and engineering research national laboratories and is the largest in size in the Midwest. It is located on 1,700 acres (6.9 km²) in DuPage County, 25 miles (40 km) southwest of Chicago, Illinois, on Interstate 55, completely encircled by Waterfall Glen Forest Preserve.

Argonne conducts basic and applied research in energy storage, alternative energy and efficiency, nuclear energy, national security, and biological and environmental systems. Argonne's scientific user facilities, such as the Advanced Photon Source, the Center for Nanoscale Materials, ATLAS, and the Argonne Leadership Computing Facility, help advance America's scientific leadership and prepare the nation for the future.

To find out more about Argonne, take a look at our website at <http://www.anl.gov>.

Age: 41

Country: United States

Report profile image violation

IBM and Blue Gene/P

From: ArgonneNationalLab

Views: 137

Videos (11)

Subscribe to ArgonneNationalLab's videos

Find: Q p

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Done

Argonne National Lab (argonne) on Twitter

http://twitter.com/argonne

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Argonne National Laboratory is one of the U.S. Department of Energy's foremost science and engineering R&D laboratories.

Argonne conducts basic and applied research in energy storage, alternative energy and efficiency, nuclear energy, national security, and biological and environmental systems.

Argonne's scientific user facilities, such as the Advanced Photon Source, the Center for Nanoscale Materials, ATLAS, and the Argonne Leadership Computing Facility, help advance America's scientific leadership and prepare the nation for the future.

Visit us online: www.anl.gov

Follow Argonne's Advanced Photon Source @advancedphoton

Measure into fuel? <http://tinyurl.com/cdg5id>

Celebrate Earth Day every day at Argonne: <http://tinyurl.com/d0e2fy>

Energy Dept. celebrates Earth Day <http://tinyurl.com/jc77v8>

RT @sweetme: Earth Day a good time to rethink power use | Larry Magid at Large - CNET News <http://bit.ly/luK5>

Science careers at Argonne: <http://www.anl.gov/jobsearch>

Obama taps physicist to head Dept of Energy Office of

Name: Argonne National Lab

Location: Chicago

Web: <http://www.anl.gov>

Bio: One of the Department of Energy's largest research centers, Argonne delivers science & technology solutions to energy, environment, and security challenges.

449 859 following followers

Updates 137

Favorites

Actions

Block argonne

Following

Find: Q p

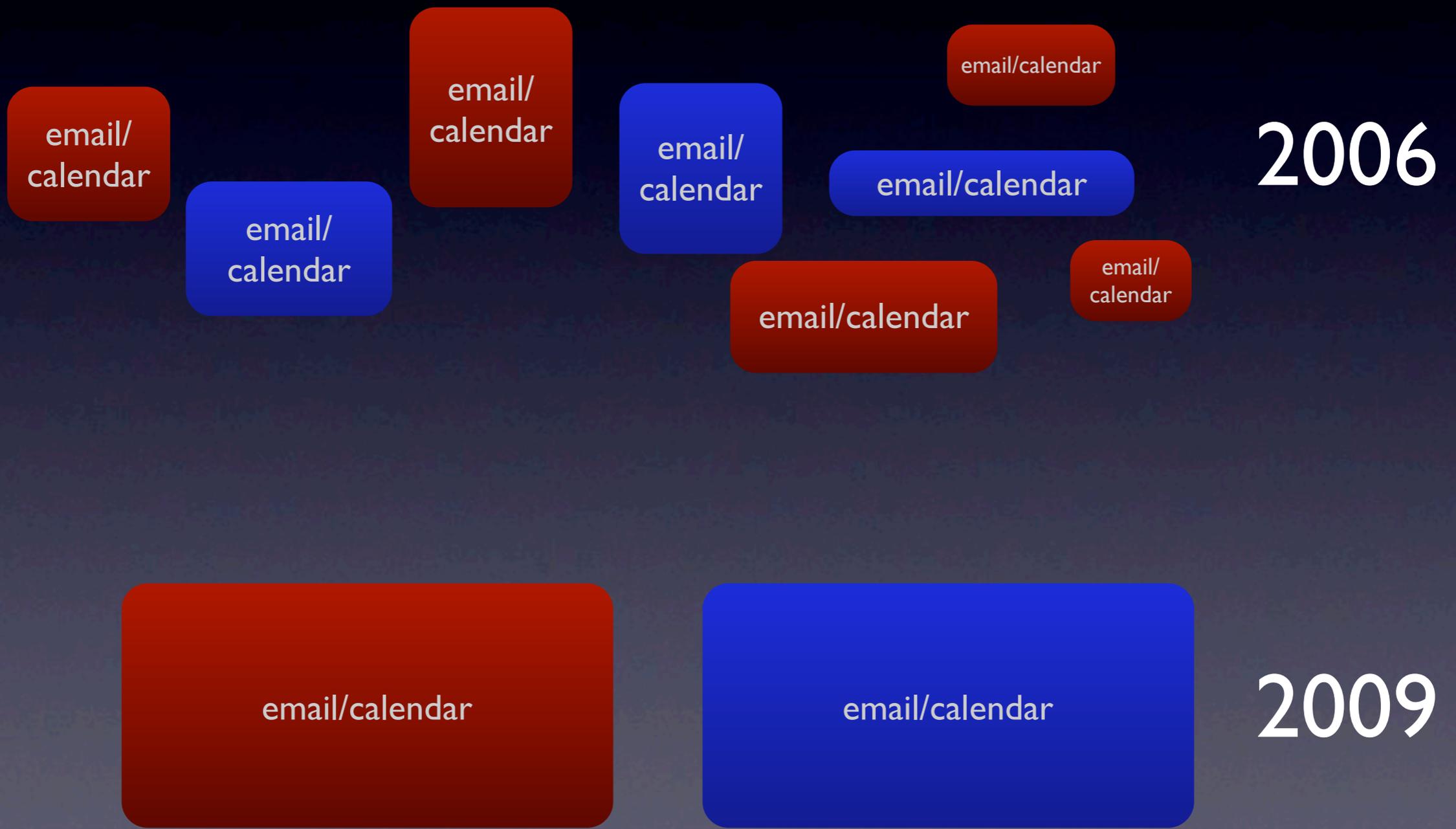
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Done



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Infrastructure



Unique Local Needs



email/
calendar

storage?

backup?

????

Undifferentiated - commodity



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Something new has
happened....



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we

have

competition

 Windows Live  Office Live  Exchange Online  SharePoint Online  Microsoft Dynamics CRM Online

Azure™ Services Platform

 Live Services

 Microsoft .NET Services

 Microsoft SQL Services

Microsoft
SharePoint Services

Microsoft Dynamics
CRM Services

 Windows Azure™

Microsoft

Operating Systems		
Red Hat Enterprise Linux	Windows Server 2003	Oracle Enterprise Linux
OpenSolaris	openSUSE Linux	Ubuntu Linux
Fedora	Gentoo Linux	Debian

Software

Amazon EC2 enables our partners and customers to build and customize Amazon Machine Images (AMIs) with software based on your needs. We have hundreds of free and paid AMIs available for you to use. A small sampling of the software available for use today within Amazon EC2 includes:

Databases	Batch Processing	Web Hosting
Oracle 11g	Hadoop	Apache HTTP
Microsoft SQL Server Standard 2005	Condor	IIS/Asp.Net
MySQL Enterprise	Open MPI	
Microsoft SQL Server Express		

Application Development Environments	Video Encoding & Streaming
Java Application Server	Wowza Media Server Pro
JBoss Enterprise Application Platform	Windows Media Server
Ruby on Rails	

Console

AWS Auth

EC2

S3

SQS

EBS

SimpleDB

Amazon

-  [Blogger](#)
Share your life online with a blog -- it's fast, easy, and free
-  [Calendar](#)
Organize your schedule and share events with friends
-  [Docs](#)
Create and share your online documents, presentations, and spreadsheets
-  [Gmail](#)
Fast, searchable email with less spam
-  [Groups](#)
Create mailing lists and discussion groups
-  [Knol](#)
Share what you know
-  [Orkut](#)
Meet new people and stay in touch with friends
-  [Picasa](#)
Find, edit and share your photos
-  [Reader](#)
Get all your blogs and news feeds fast
-  [Sites](#)
Create websites and secure group wikis
-  [SketchUp](#)
Build 3D models quickly and easily



Postini



Friendconnect



Google



SharePoint

Wikis

Exchange (email, calendar)

Zimbra (email, calendar)

Storage Servers

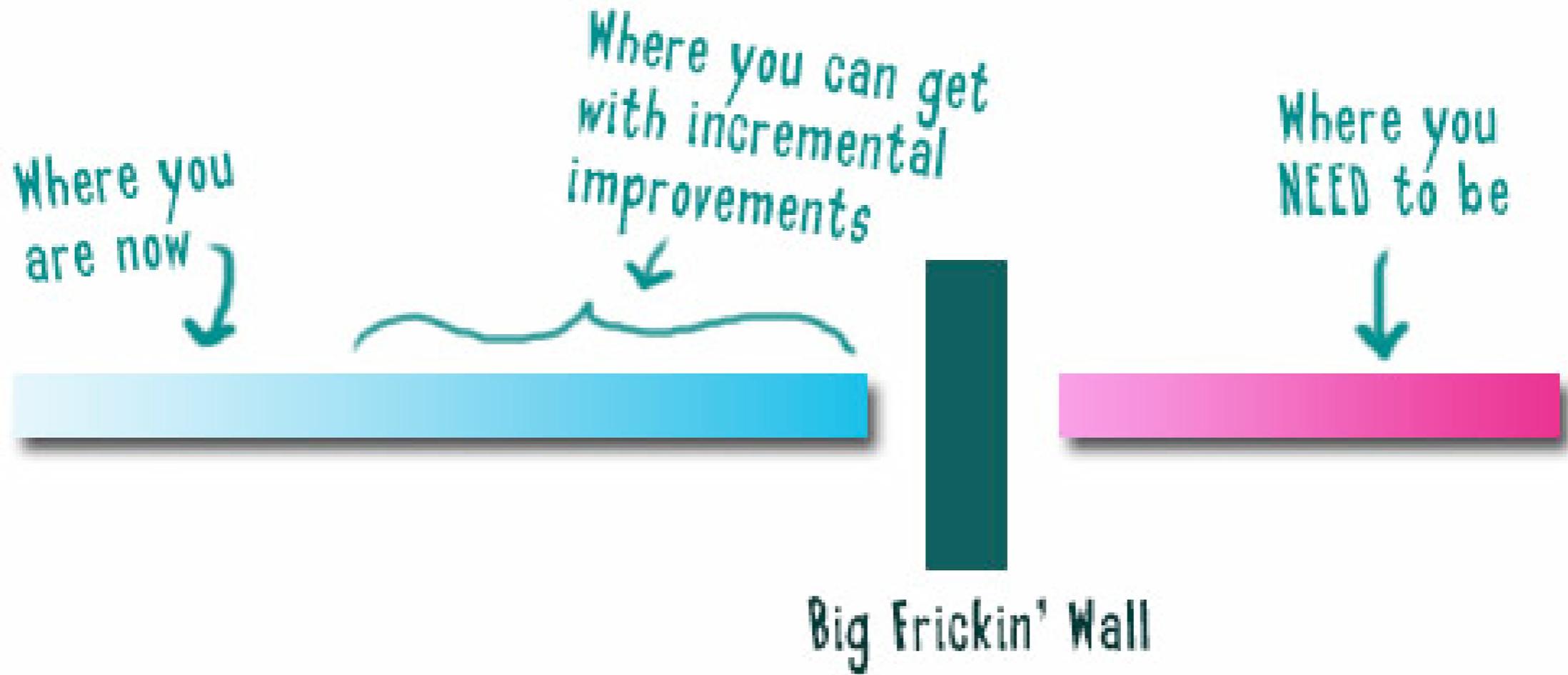
IronPort

Application Servers

Web Servers

Database Servers

Incremental vs. revolutionary improvements...



Source: Kathy Sierra



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Choices
Quality
Scalability



Source: Kathy Sierra