



Trends in Technology and their Impact on Organizations

Reggie Henry, CAE
Chief Information Officer
ASAE

My Favorite Restaurant ON THE PLANET!!!



Shift



What We'll Cover



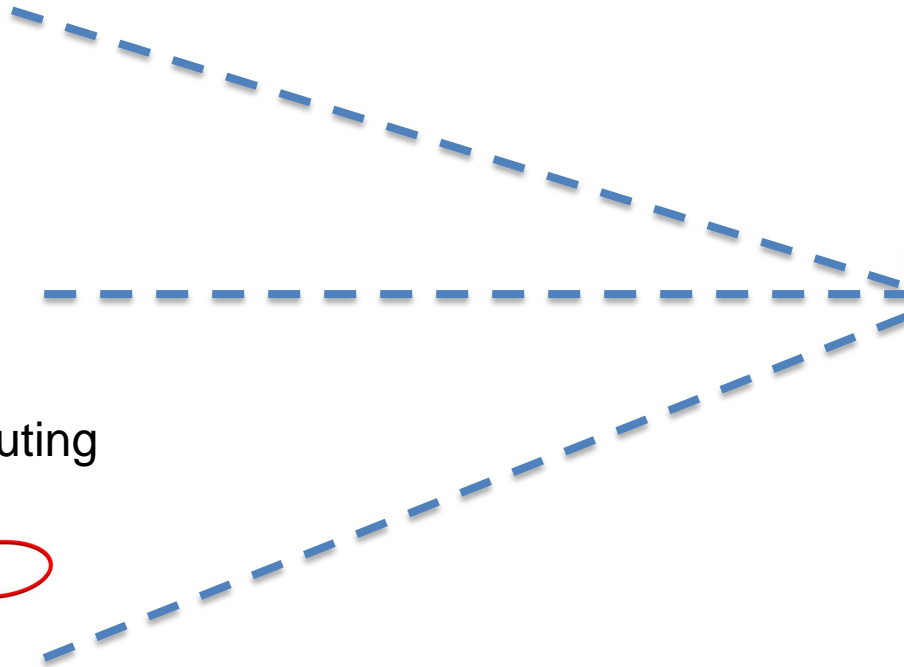
Mobile



Cloud Computing



Social



Mobile



Stationary
Formal
Abstracted



Ubiquitous
Informal
Physical

One might say a more “natural” way of computing...do we even call it that anymore??

Mobile



More people now have a mobile phone than an Internet-connected PC in the U.S...

Mobile

...and increasingly, they are **SMARTPHONES**



Mobile

Post-PC era?



Maybe, maybe not, but this is definitely the mobile era!

Prediction...

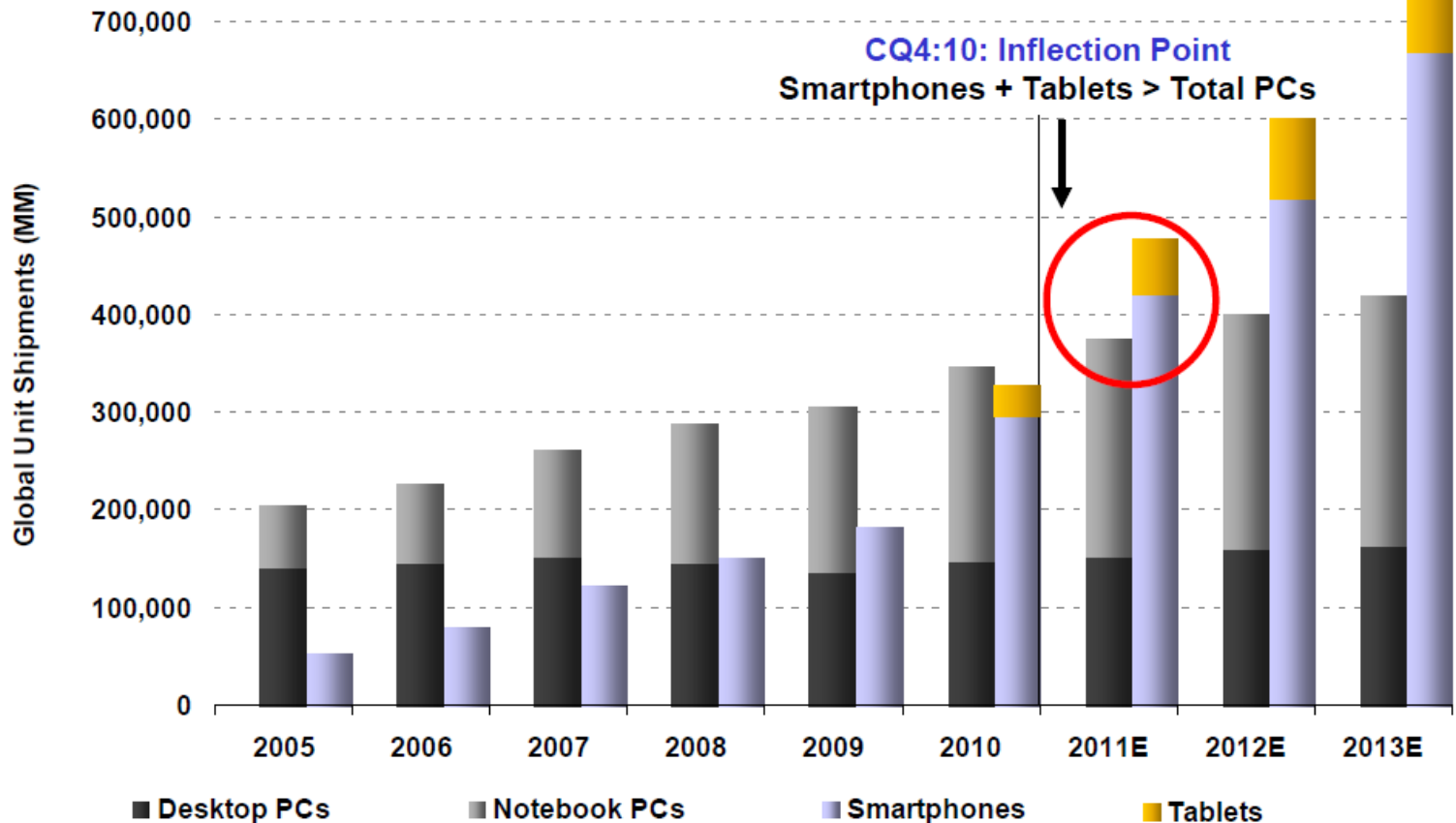
Smartphone > PC Shipments Within 2 Years – Implies Very Rapid / Land Grab Evolution of Internet Access

Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones, 2005 – 2013E



~~Prediction...~~

Global Unit Shipments of Desktop PCs + Notebook PCs vs. Smartphones + Tablets, 2005-2013E



Note: Notebook PCs include Netbooks. Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Data and Estimates as of 2/11

...and then there's this!!



This is Different!!!

This is Different!!!



I'm not sure what it is but the simplicity of the apps seems to get people considering what apps might exist and what apps need to be created. The other thing about these devices is that they are all about customization. **Most desktops and laptops do not encourage people to do much beyond using the software outside of the default installation.** The average user doesn't seek to tweak and tinker. The iPad is all about tinkering.

IDEAS and
THOUGHTS



IDEAS AND THOUGHTS

Learning Stuff Since 1964



The personal weblog of
Dean Shareski

This is Different!!!

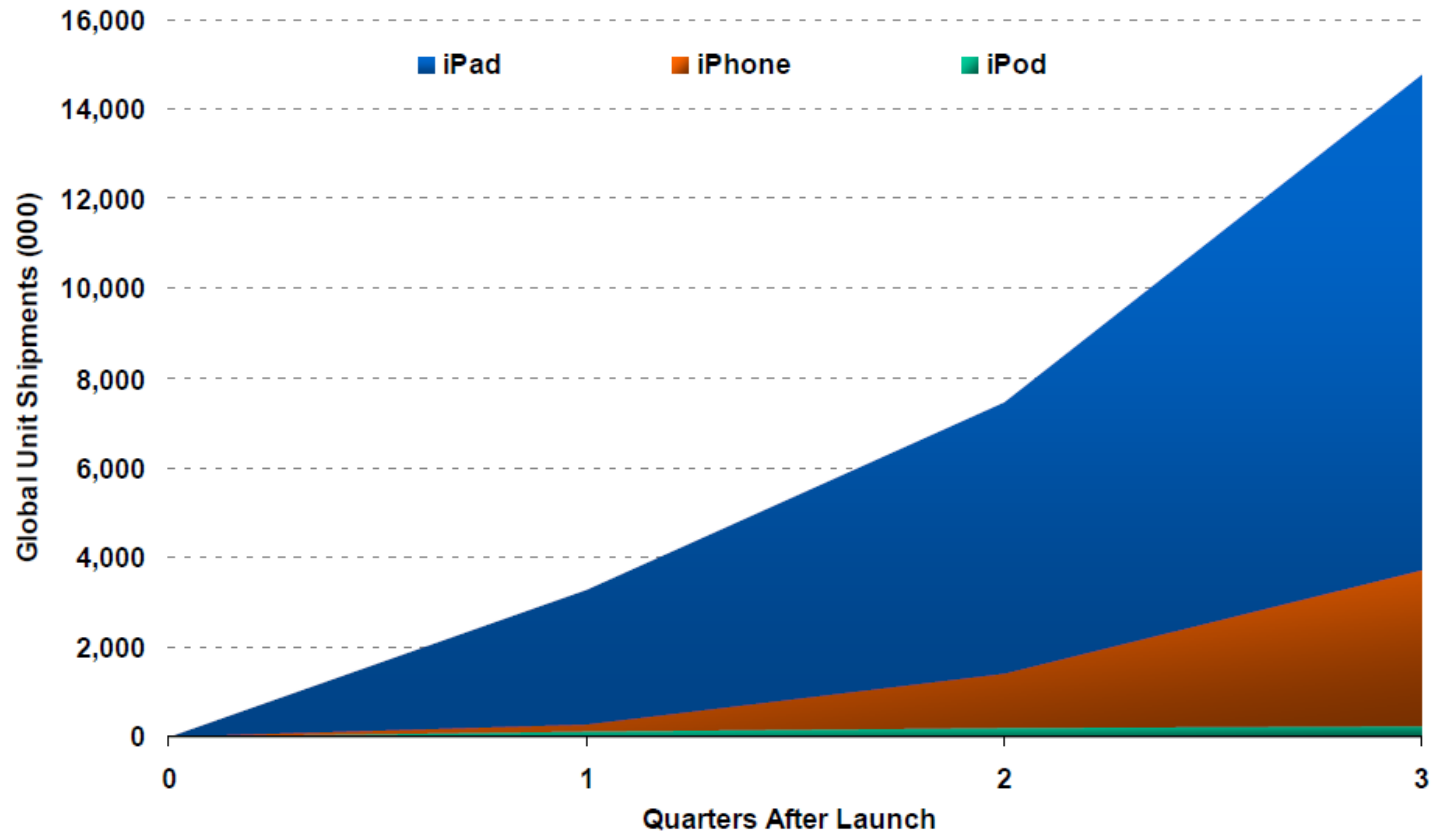


But the very simplicity of the iPad masks its transformational power. Some say the iPad heralds a new era of computing, and I'm inclined to believe them. The interface is so intuitive—navigating with your fingers rather than a keyboard and mouse—that it will change what we expect from our computers. Today we talk about "getting on the Internet," but with iPad you can have a persistent online connection, and that's a pretty profound **shift**.

Daniel Lyons
Newsweek

iPad Adoption is Crazy!

First 3 Quarters Cumulative Unit Shipments, iPod vs. iPhone vs. iPad



But from a
business perspective
why should I care?

It's just a media device,
right?

My first portable computer - 1986



COMPAQ Portable II

- Price:** \$4999
- Weight:** 26 Pounds
- CPU:** Intel 286 @ 8 MHz
- RAM:** 640k
- Storage:** 20Meg hard drive
- Display:** 9 Inch monochrome
80 x 25 text
- Ports:** 1 parallel, 1 serial, 1 CGA
- OS:** MS-DOS 3.1

My present portable computer - 2012



iPAD 2

- Price:** \$699
- Weight:** 1.35 Pounds
- CPU:** 1GHz dual-core
- RAM:** 64GB
- Storage:** (in RAM)
- Display:** 9.7 Inch
1024x768 resolution
- Ports:** 30-pin dock connector
- OS:** iOS 5

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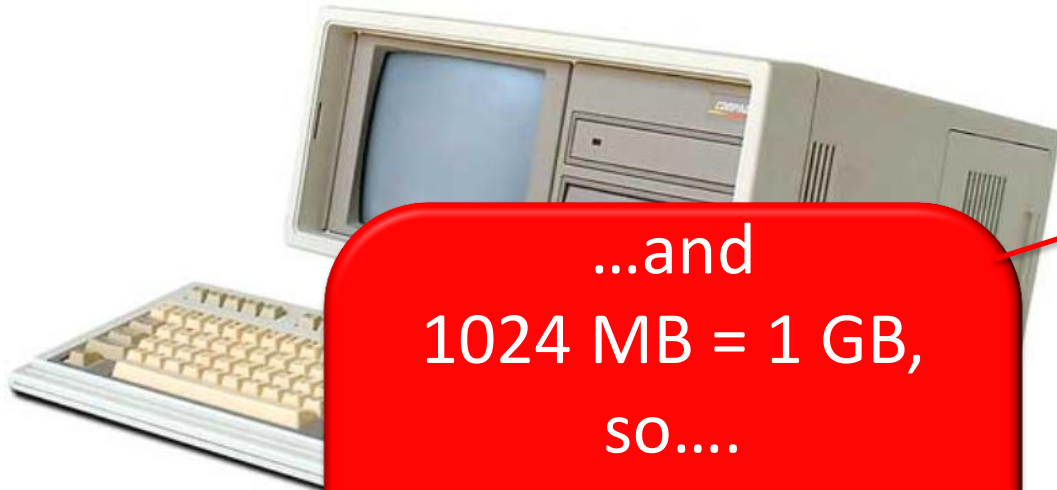
Let's see...
1024 MHz = 1 GHz,
so....
WOW! That's about
125 times faster!

My present portable computer - 2012



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OS: MS-DOS 3.1

...and
1024 MB = 1 GB,
so....
That's about 3,200
times more
workspace and
storage!

My present portable computer - 2012



iPAD 2
Price: \$699
Weight: 1.35 Pounds
CPU: 1GHz dual-core
RAM: 64GB
Storage: (in RAM)
Display: 9.7 Inch
1024x768 resolution
Ports: 30-pin dock connector
OS: iOS 5

This IS a computer!



Shift



A man in a dark blue suit and light blue shirt is sitting and looking at a tablet. A large black thought bubble is positioned above his head, containing the symbols '!&%\$\$!!!'. The background is a plain white wall with a light switch visible on the right.

!&%\$\$!!!



Why don't
you try
working
like IT
works?



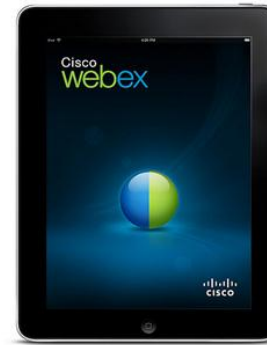


Scenario 1 – The Train Ride Presentation

Reggie, our conference speaker didn't show up! Folks aren't too happy. We're right around the corner at the Capital Hilton. Can you come over and do a technology trends update?



Uhhh...Unfortunately, I'm on a train to New Jersey and...wait a minute...do you have a WebEx account?
You do? Great! Fire it up and send me the link...I think we can do this!



Did that just really happen?



Scenario 2 – The Forgotten Laptops



Mechanicsburg, PA. 5 minutes before the start of the presentation, and ...

What do you mean you forgot the laptops???!!!!!



Scenario 2 – The Forgotten Laptops



SharePlus
\$14.99



Keynote
\$9.99



Keynote Remote
\$.99

Total Cost = \$25.07



Did that just really happen?

What should I be doing?

Internal Strategy

- Mobile Device Management
- BYOD (Bring Your Own Device)
- Tablets are HUGE!
- Customizable Work Environment
- Convenience

External Strategy

- Content – Mobile First!
- Community – Social Networks
- Collaboration
- Communication

Mobile: Are you optimized for Mobile?



A recent study from Ruder Finn revealed that Americans are spending nearly three hours per day on their mobile phones..

...perhaps the most interesting finding from the new data is the fact that more people are using the mobile web to socialize (91%) compared to the 79% of desktop users who do the same.

It appears that the mobile phone is actually a **better platform** for social networking than the PC.

Mobile SIZE is Different!



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Depart Return

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0 Seniors 65+

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Air

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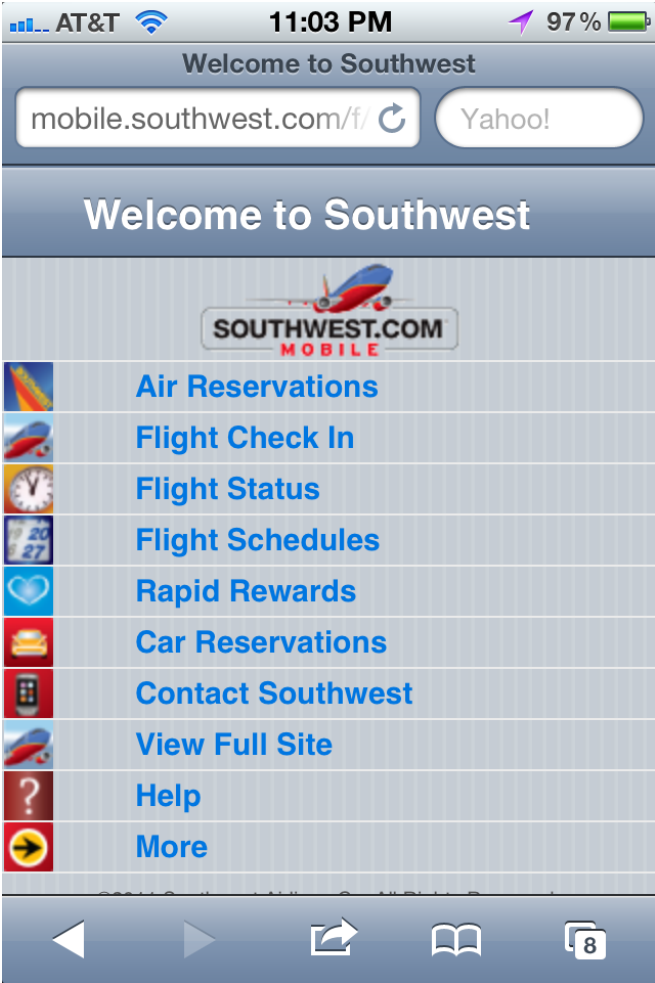
[Travel Guide](#)

EarlyBird Check-In



Automatic Check-In
Better Seat Selection
Earlier access to overhead bins
All for \$10 one-way.
[Learn more](#)

Mobile SIZE is Different!



Website Usability on Mobile Devices



Measured usability varied substantially, depending on whether people used a mobile site or a full website.

- **Mobile** site success rate: **64%**
- **Full** site success rate: **58%**

This leads to the first, and maybe most important, guideline for improving the mobile user experience: **design a separate mobile site.**

Apps Beat Sites

While a mobile site is good, a mobile app is even better. We measured a success rate of **76% when people used mobile apps**

(The exception would be people using large-sized tablets like the iPad. Our separate [studies of iPad users](#) show that they do fairly well browsing full sites.)

Website Usability on Mobile Devices



Mobile Design = Small and Targeted

To have a successful mobile site or app, the obvious guideline is to design for the small screen. Sadly, some don't, and we still see users struggle to hit tiny areas that are much smaller than their fingers.

The second point is more conceptual — and harder for some people to accept: When you have a smaller screen, you must **limit the number of features** to those that matter the most for the mobile use case.

Are You Really Ready for Tablets?



Forrester predicted that tablet sales could quadruple from 2010 to 2015, leading to a surge in tablet-based e-commerce and chipping away at the amount of Web traffic coming from PC's.



Test Your Site on a Tablet

Using your own site on a tablet computer is the only way to get an accurate idea of what other users experience when they browse your site from such a device.

Simplify the Layout

Even if your desktop site's design renders properly on tablets, that doesn't mean the battle is won.

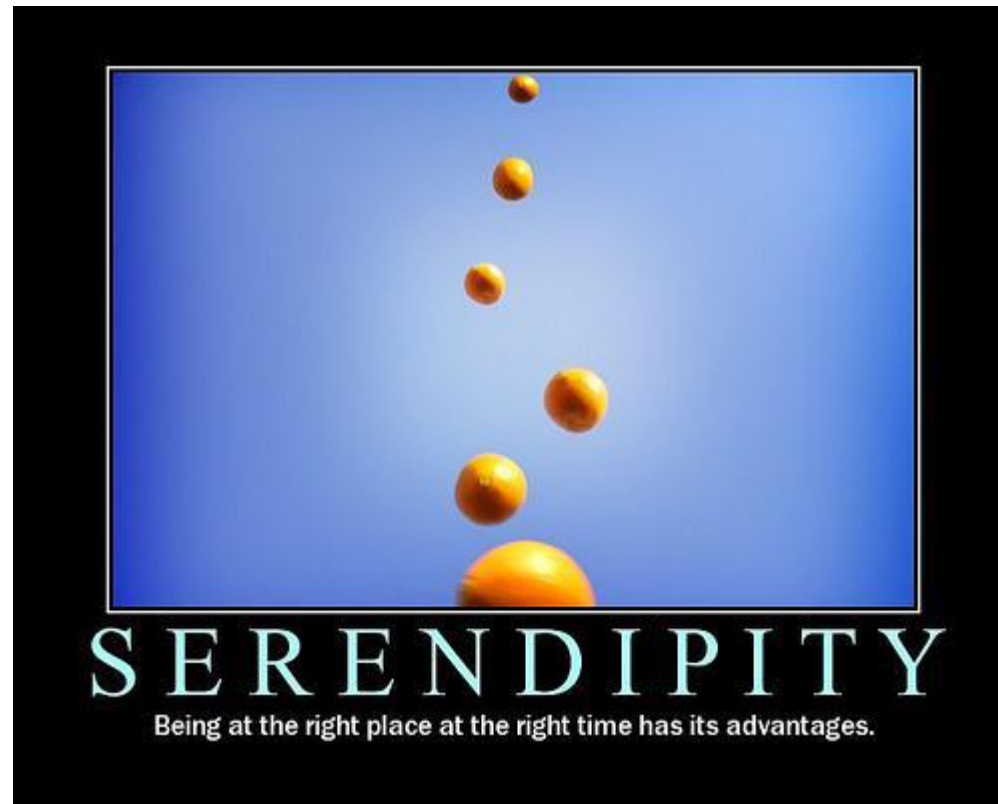
Ditch the Flash

No matter where you stand on the mobile Flash debate, it's hard to deny that more open standards like HTML5 and JavaScript can accomplish most of what Flash does. Apple's iPad is overwhelmingly dominant in this space for the time being, so we have to play by their rules, to some extent.

Make the User Interface App-Like

Consider building a tablet-specific version of your site that utilizes some of the more app-like interface elements like subtle animations and a navigation that responds to finger-swiping.

Mobile: Intentional Serendipity



Location based social serendipity 😊

I really need some help with this cloud computing thing...



Can we help our members have “not so chance” encounters?



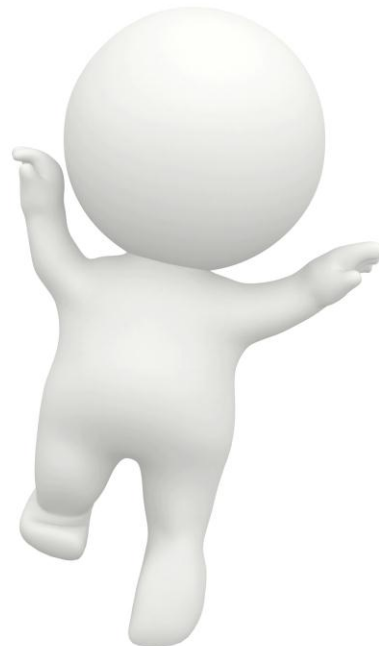
Mobile is Different!

“The desktop environment is like a carp in a bathtub: It grows till it fills all available space,” says Luke Wroblewski, who was chief product officer and co-founder of Bagcheck.com. The same goes for Web pages, he adds, and as a result, the screen gets cluttered with irrelevant data that can distract or frustrate end users.

Mobile USAGE is Different!



Cloud Computing



Cloud computing

The delivery of ***computing as a service*** rather than a product, whereby shared resources, software, and information are provided to computers **and other devices** as a metered service over a network (typically the Internet).

Why Cloud Computing?

Infrastructure



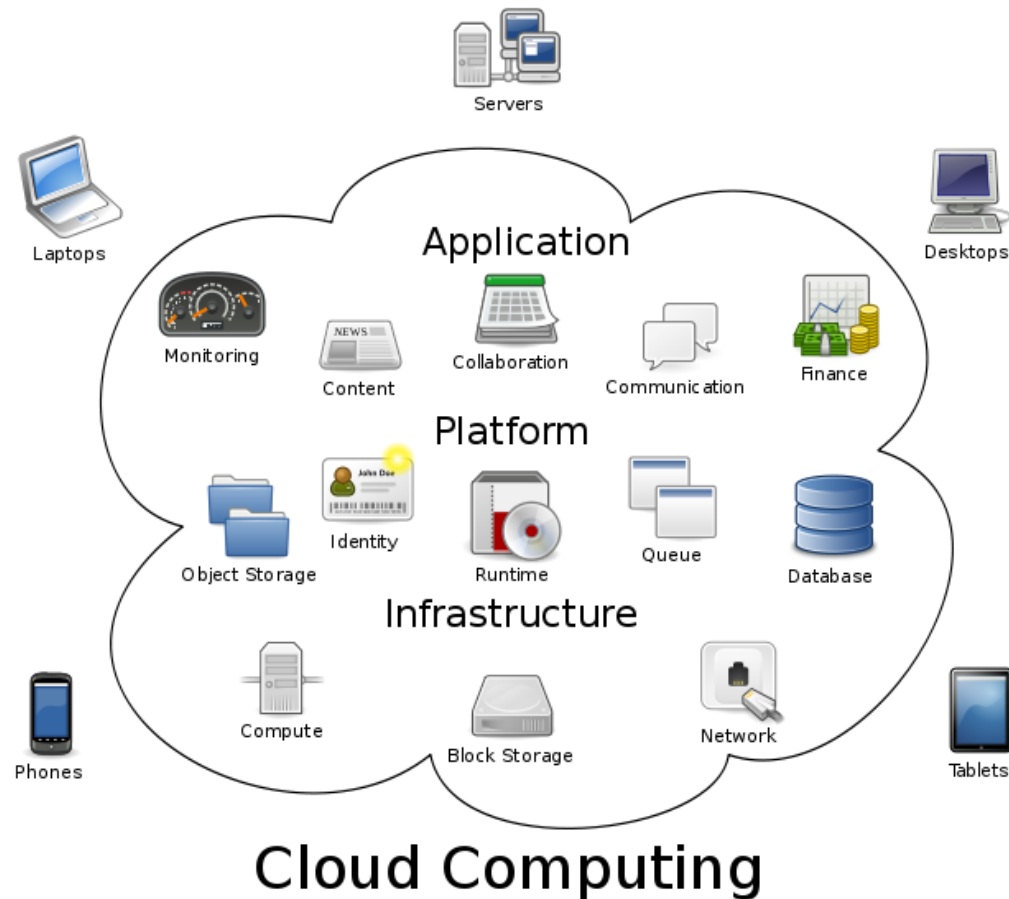
Software



People



Cloud Computing



3 Major Business Models

Cloud Computing

Software as a Service (SaaS)

Cloud application services or "**Software as a Service (SaaS)**" deliver software as a service over the Internet, eliminating the need to install and run the application on the customer's own computers and simplifying maintenance and support.



Cloud Computing

Platform as a Service (PaaS)

PaaS solutions are development platforms for which the development tool itself is hosted in the cloud and accessed through a browser. With PaaS, developers can build web applications without installing any tools on their computer and then deploy those applications without any specialized systems administration skills.



Cloud Computing



Infrastructure as a Service" (IaaS)

Cloud infrastructure services, also known as “**Infrastructure as a Service" (IaaS)**, deliver computer infrastructure – typically a platform virtualization environment – as a service, along with raw (block) storage and networking. Rather than purchasing servers, software, data-center space or network equipment, clients instead buy those resources as a fully outsourced service.



3 Major Implementation Models

Private cloud

- ❖ Enterprise owned or leased

Community cloud

- ❖ Shared infrastructure for specific community

Public cloud

- ❖ Sold to the public, mega-scale infrastructure

Hybrid cloud

- ❖ Composition of two or more clouds



Private Cloud



Community Cloud



Public Cloud

Cloud Computing



Pros

- **Eliminate or reduce capital investments in infrastructure**
- **Scalability – up or down**
- **Speed to market**

Cons

- **Security**
- **Application Integration**
- **Privacy Compliance**

Cloud Computing

Personal Cloud Computing



Dropbox



iCloud

Social Networking



Social Networking

The world is changing the way it communicates.

The world is changing the way content is created, filtered, consumed, shared, rated.....

That's what this is REALLY all about!



There is a group of folks, largely (but not entirely) defined by generation, who communicate differently. **They have always communicated differently.** They live their lives out loud!

That's what this is REALLY all about!

Social Networking

Generation Y and Z consider e-mail passé...In 2009 Boston College stopped distributing e-mail addresses to incoming freshmen

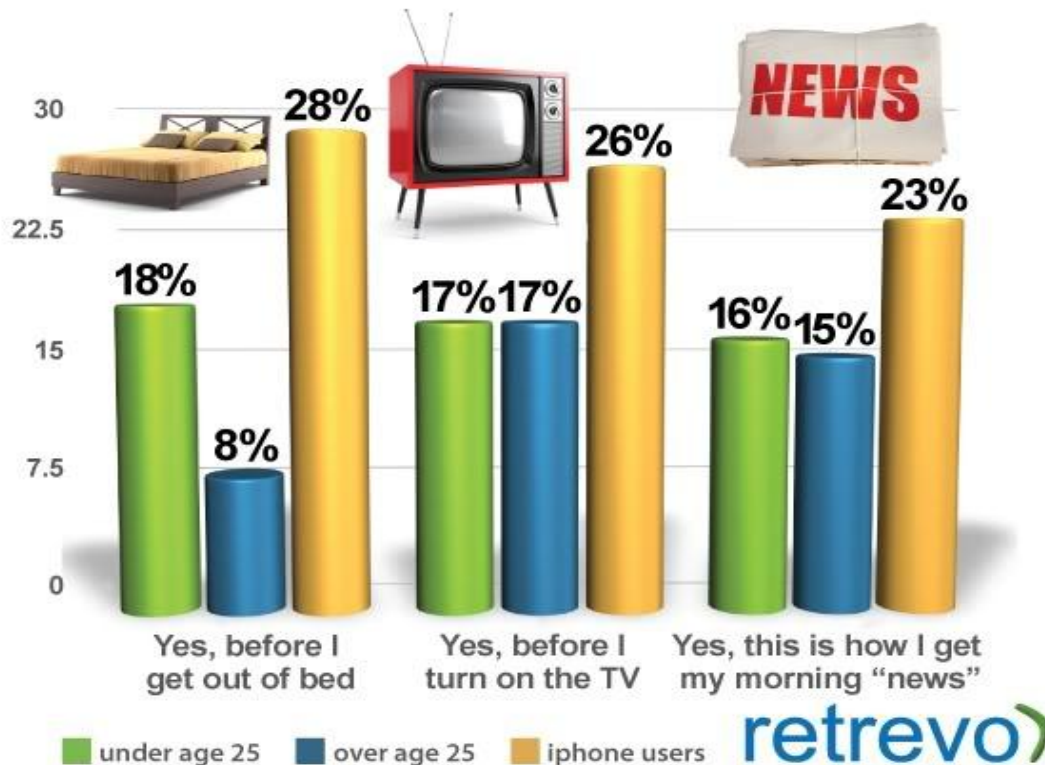
Email



Social Media

Social Networking

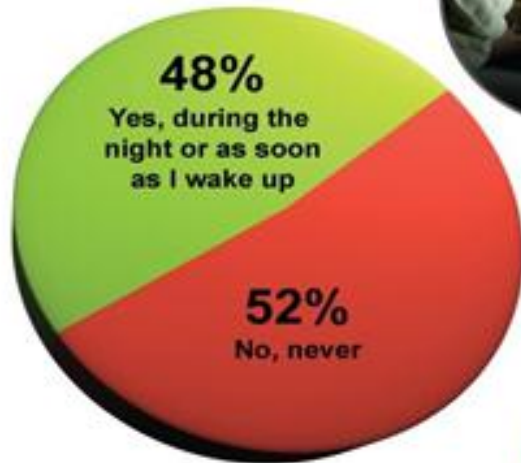
Do you check/update Twitter, Facebook first thing in the morning?



A recent Retrevo study by surveyed just over 1000 Americans and asked questions such as when, where, and how much time they spend on sites and services like Facebook and Twitter.

Social Networking

Do you check/update Facebook or Twitter after you go to bed?



retrevo

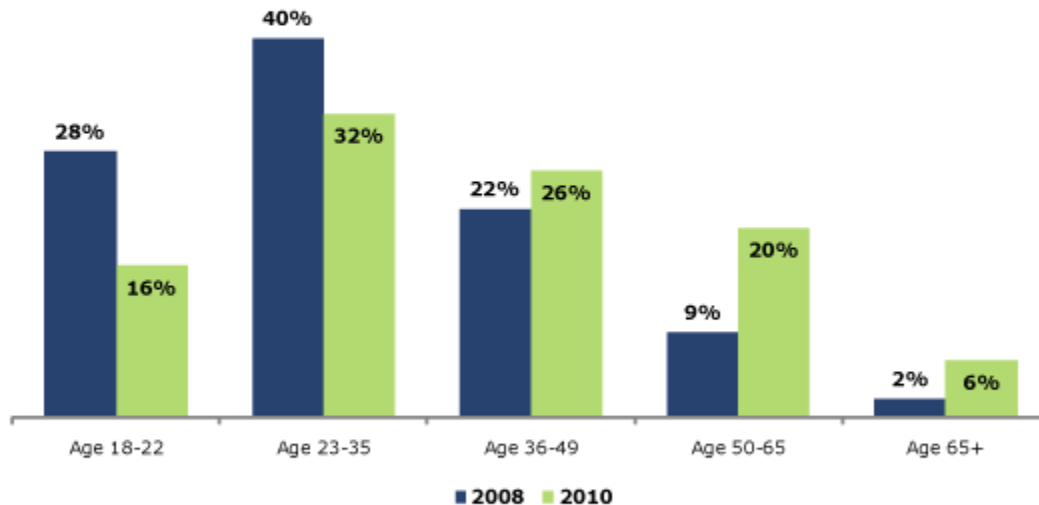


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Social Networking

Social Network Site Users, by Age

Percent (%) of adults
2008-2010



MC MARKETINGCHARTS.COM

Source: Pew Research

The average age of social network users rose between 2008 and 2010, according to data from the Pew Research Center Internet & American Life Project. For example, the percentage of social network users age 18-22 fell 43%, from 28% to 16%.

Percentage of SocNet Users 36 and Up Rises

In addition, the percentage of social network users age 23-35 dropped 20%, from 40% to 32%. Meanwhile, the percentage of users age 36-49 rose 18%, from 22% to 26%. Most significantly, the percentage of users age 50-65 more than doubled, from 9% to 20%. In total, 52% of social network users in 2010 were 36

What should I be doing?

What should I be doing?

1. Strategy
2. Integration
3. Mobile
4. Social CRM



This is exhausting!



Develop a Social media strategy!!!

strat•e•gy

(strāt' ə-jē) *n.*

**1. Plan of action
designed to achieve
a particular goal.**

This sounds like a basic concept, yet it seems that most organizations do not have a concise list of what they hope to achieve through the use of social tech; **all they have is a fuzzy sense that they want to learn how to use it.**

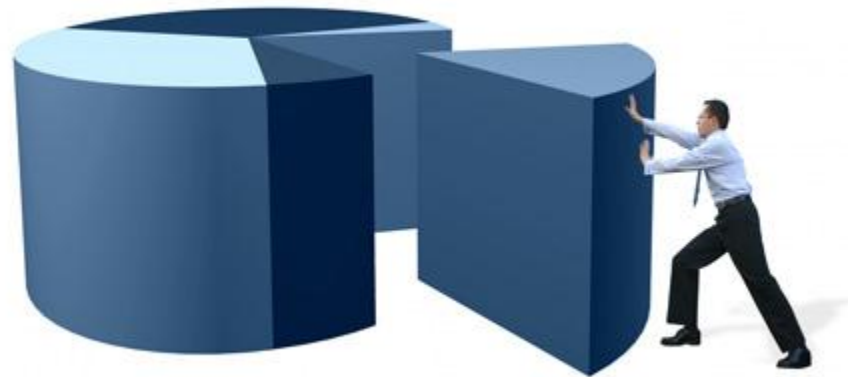
*Scott Klososky
Enterprise Social Technology: Helping Organizations
Harness the Power of Social Media*

U.S. Army Social Media Strategy for the week of: Week

	Monday	Tuesday	Wednesday	Thursday	Friday
Theme:	Question	Facebook feature	Sharing stories online	Women's Equality Day	Soldiers and Families
LOE:	Strategic Environment	Equip and Train	Equip and Train	Strategic Environment	Soldiers & Families
Flickr:	Pull 3-5 photos from various sites	Pull 3-5 photos from various sites	Pull 3-5 photos from various sites	Pull 3-5 photos highlighting women in the Army	Pull 3-5 photos highlighting Military Families
Photo of day:	"Convoy Fights off Insurgent Ambush" 6,075 total views	"The Wall Hanger" 7,373 total views	"In the Early Morning Light" 3,888 total views	"Don't Look Down" 6,086 total views	Soldier/Family Oriented
Facebook:	#1: Photo of the Day #2: Question: "Army Inspiration" (over 1,330 comments) #3: Birthplace of National Guard (army.mil)	#1: Photo of the Day #2: Highlight "Ft. Benning" #3: Promote Army Videos on iTunes	#1: Photo of the Day #2: G/8 Video (Army Modernization) #3: Promote Women's Equality Day	#1: Photo of the Day #2: Women in Army History (army.mil/women) #3: Personality Profile of Women Soldier	#1: Photo of the Day #2: Family Tour BCT (army.mil feature) #3: Question: Improvements in supporting Military Family
Tweets:	#1: Photo of the Day #2: Trivia: 7 Core Values (over 10 responses) #3: Question: "Army Inspiration" (over 25 responses)	#1: Photo of the Day #2: Cross-promote "Ft. Benning" #3: Promote Army Videos on iTunes	#1: Photo of the Day #2: Cross-promote Army Modernization Video #3: Promote Women's Equality Day	#1: Photo of the Day #2: Trivia: 1 st Women Generals? #3: Shout-out to Female Soldiers (about 20 responses)	#1: Photo of the Day #2: Cross-promote Army.mil feature story #3: Question: Improvements in supporting Military Family
Blog:	"To Protect & Defend"-Army Inspiration	Army Blog Feature (Army Technology)	Bloggers Roundtable (Unmanned Aircraft Systems)	Personality Profile Sgt. Tyronda Dorsey (over 1650 FB shares)	Photo Slideshow of "Welcome Home" Celebrations
STAND-TO!	Pain Management	Soldier Athlete Initiative	Comprehensive Soldier Fitness	Women's Equality Day	Army's Land War Net
Goal:	To educate & engage with audience	To promote external Army initiatives & to inform audience	To inform Soldiers & audience of advances in Army technology	To inform/educate audience on Women in Army History	To engage Military families
Measure of Effectiveness	FB: 3 posts; 629 likes, 120 comments (aver. per post) Twitter: 4 tweets; 42 re-tweets Blog: 3148 page views	FB: 3 posts; 615 likes, 138 comments (aver. per post) Twitter: 3 tweets; 47 re-tweets Blog: 3190 page views	FB: 3 posts; 1105 likes, 163 comments (aver. per post) Twitter: 3 tweets; 50 re-tweets Blog: 3,563 page views	FB: 3 posts; 1133 likes, 131 comments (aver. per post) Twitter: 4 posts; 51 re-tweets Blog : 3,010 page views	FB: 3 posts; 850 likes, 175 comments (aver. per post) Twitter: 3 tweets; 56 re-tweets Blog: 4,392 page views

Integration

Social media can not be an island in your organization.



How will your new media strategy support and enhance your existing Internet strategy (email, website, search engine, etc)?

Social Networking



Make sure your website and social “stuff” are integrated.

Social media shouldn't stand on its own. Sustainable social media strategy means that your entire web presence (including social media profiles and activities) ARE your website. It's not just your URL now.

But remember....

Website = Destination

About You

Social Media = Conversation

About Them

The Rules Are Different!!

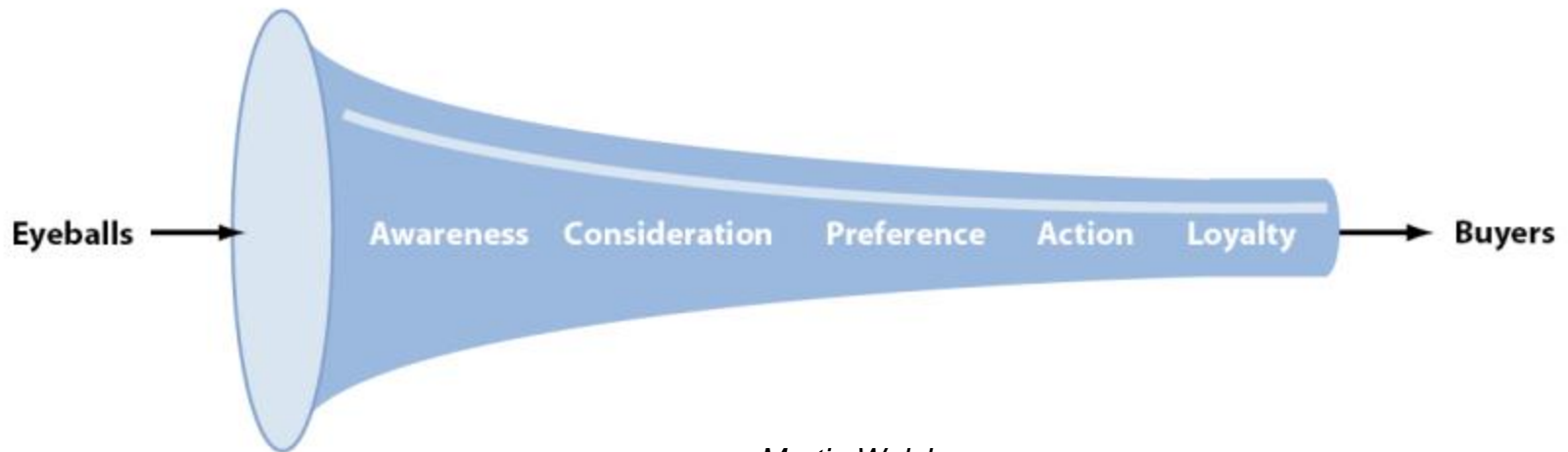
But they should be connected!

“SOCIAL” CRM

“Social” CRM

WHY IS THIS SO IMPORTANT? BECAUSE THIS.....

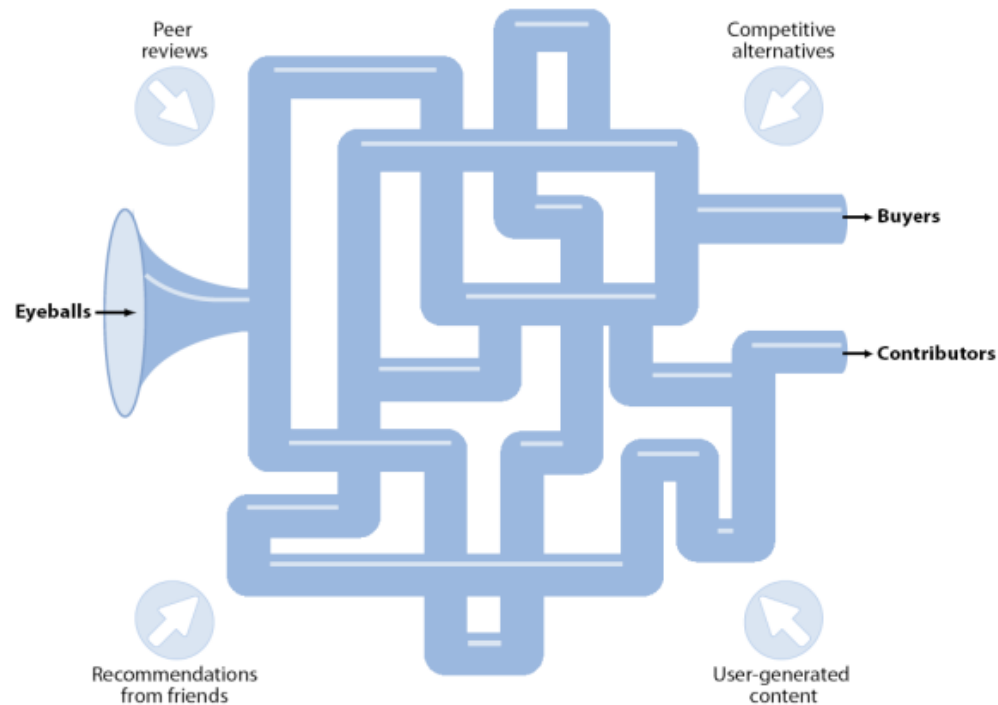
1-1 The traditional marketing funnel



*Martin Walsh
Head of Digital Marketing & Award Winning Producer at Red
Dune Films*

“Social” CRM

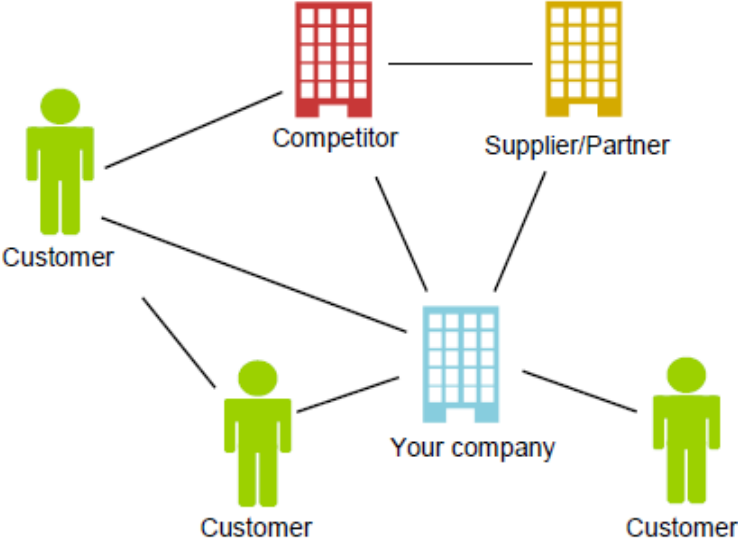
1-2 Complexity lies at the center of the marketing funnel



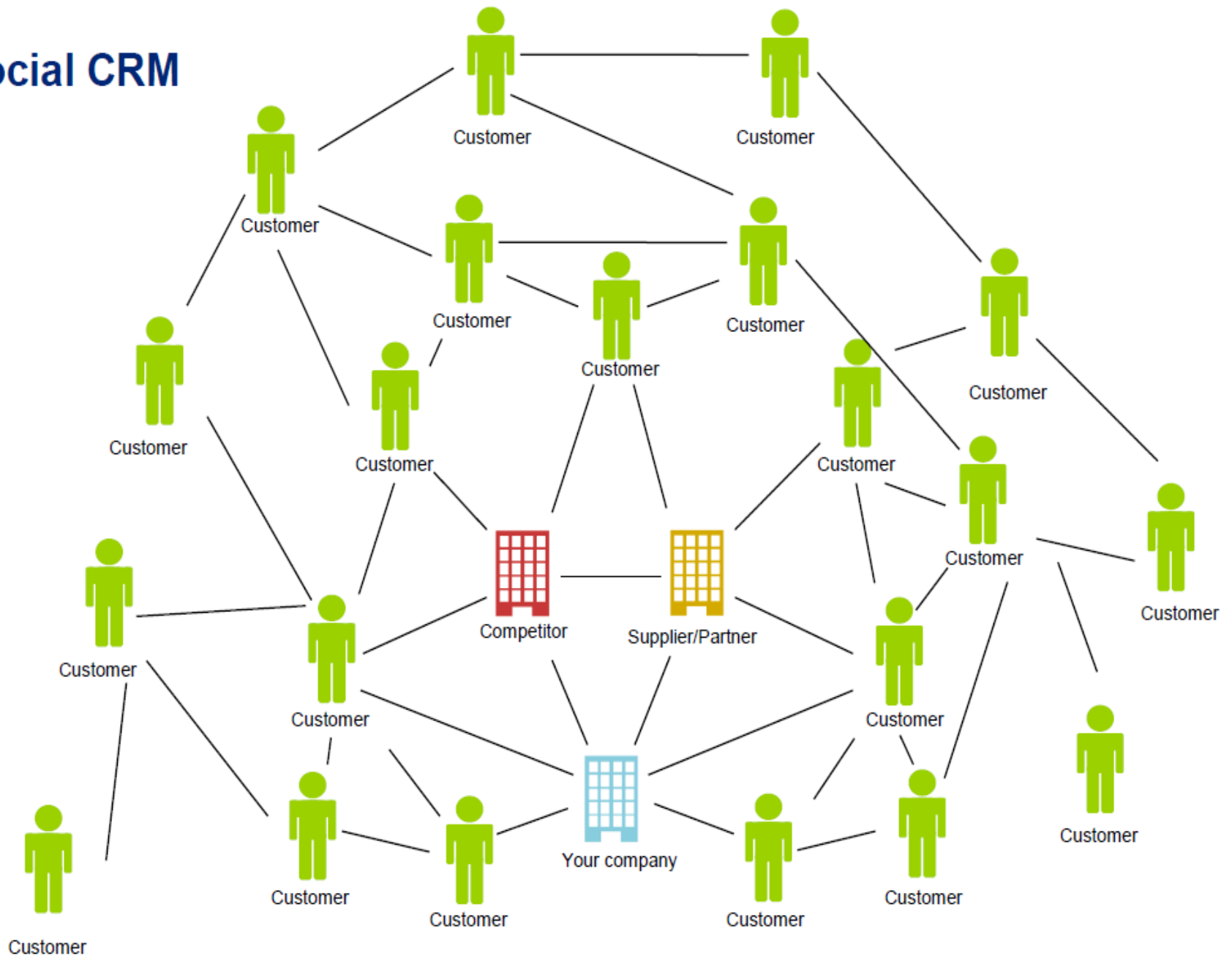
**...IS NOW
THIS!!**

*Martin Walsh
Head of Digital Marketing & Award Winning Producer at Red
Dune Films*

Traditional CRM



Social CRM



Shift



SHIT
Happens

CHECK YOUR
PARADIGM!

Final Thoughts - Q & A

**Thank You for Your Time and
Attention**