

# NETWORKED LEARNERS

Lee Rainie

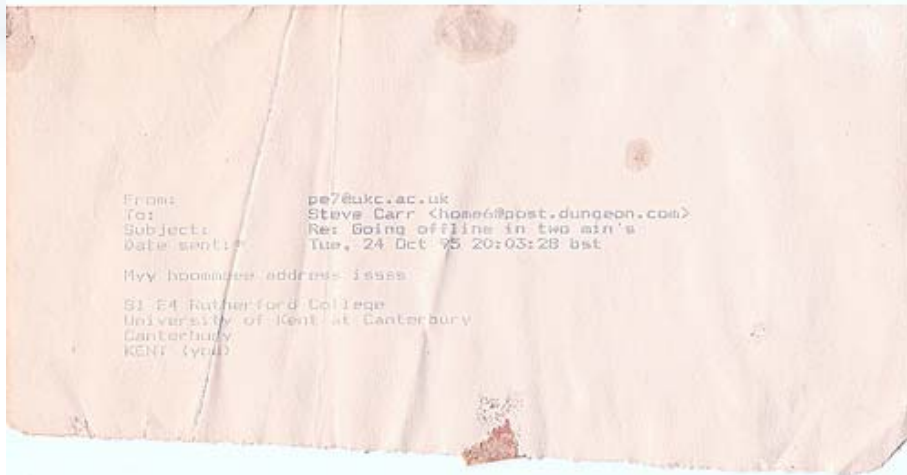
Director – Pew Internet Project

Michigan Virtual University

Michigan State

12.2.09

# Digital native – Born 1990



**Email is 22 years old**

**Today:  
87% of teens use  
email**

**PCs are 15 years old**

**Today:  
60% of teens have a  
desktop/laptop**

## Digital native – Born 1990



**Today:  
97% of teens play  
video or computer  
games**

**Video games are 43  
years old - missile  
simulator in 1947  
Pong is 18 years old**

<b>Racing (NASCAR, Mario Kart, Burnout)</b>	<b>74%</b>
<b>Puzzle (Bejeweled, Tetris, Solitaire)</b>	<b>72</b>
<b>Sports (Madden, FIFA, Tony Hawk)</b>	<b>68</b>
<b>Action (Grand Theft Auto, Devil May Cry)</b>	<b>67</b>
<b>Adventure (Legend of Zelda, Tomb Raider)</b>	<b>66</b>
<b>Rhythm (Guitar Hero, Dance Dance Revolution)</b>	<b>61</b>
<b>Strategy (Civilization IV, Command and Conquer)</b>	<b>59</b>
<b>Simulation (Sims, Rollercoaster Tycoon)</b>	<b>49</b>
<b>Fighting (Tekken, Super Smash Bros., MortalKombat)</b>	<b>49</b>
<b>First-Person Shooters (Halo, Counter-Strike, Half-Life)</b>	<b>47</b>
<b>Role-Playing (Final Fantasy, Blue Dragon Republic)</b>	<b>36</b>
<b>Survival Horror (Resident Evil, Silent Hill, Condemned)</b>	<b>32</b>
<b>MMOGs (World of Warcraft)</b>	<b>21</b>
<b>Virtual Worlds (Second Life, Gaia, Habbo Hotel)</b>	<b>10</b>

## Digital native – Born 1990



**Commercial cell phones were 12 years old**

**Today:  
75% of teens have a cell phone**

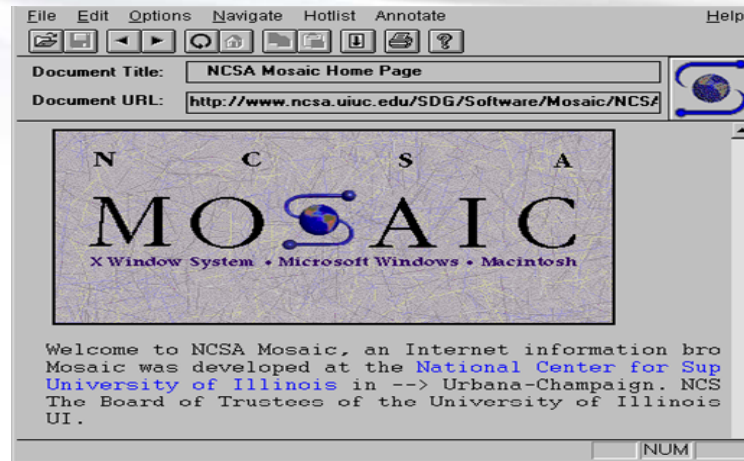
Digital native – Born 1990 (newborn)



**Tim Berners-Lee creates World Wide Web and unveils it as a Christmas present. He releases the software broadly in 1991**

**Today:  
93% of teens use the internet**

# Digital native – Preschool (3 years)



**First great browser – 1993**  
**Netscape IPO – Aug. 9, 1995**

**Today:**  
**> 90% of online teens use their browsers for  
cloud computing activities**

Digital native – 1<sup>st</sup> and 2<sup>nd</sup> grades (ages 6,7)



**ICQ - 1996**



**AOL instant  
messaging - 1997**

**Today:**

**~ 68% of online teens use instant messaging**

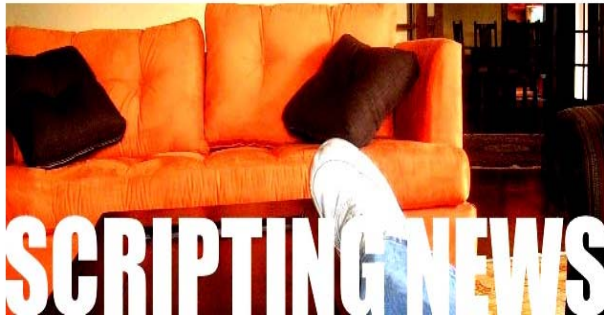
## Digital native – First grade (age 6)



**Palm Pilot – 1996**

**Today:**  
**~20% of teens have their  
own PDAs or  
Blackberries**

# Digital native – Second grade (age 7)



## LiveJournal.com

[Home](#) [News](#) [Create Journal](#) [Modify Journal](#) [Download](#) [Directory](#) [Support](#)

### What is LiveJournal.com?

LiveJournal.com is a **free service** here on the Internet that allows you to create and customize your very own "live journal" ... an up-to-the-minute log of whatever you're doing, when you're doing it. It's free, it's fun, it's easy to use!



### How do I use my LiveJournal?

## Blogs – 1997, 1999, 2001, 2003

**Today:**  
**14% of online teens  
keep blogs and  
regularly post**

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**~54% read blogs**

## Digital Native – Third grade (age 9)



**Napster - 1999**

**Today:**

**~35% of online teens find out about new songs  
by free downloads**

**~ 33% of online teens swap files on peer-to-peer**

Digital native – Third grade (age 9)



**TiVo – 1999**

**Today:  
~ 40%-50% of teens have DVRs in house**

# Digital native – Fifth grade (age 11)



## Wikipedia - 2001

**Today:**  
**~ 55% of online teens use Wikipedia**

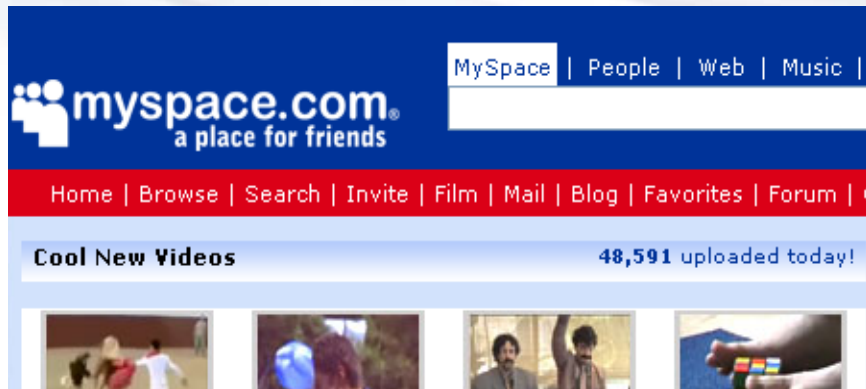
## Digital Native – Sixth grade (age 12-13)



**iPod – 2002**  
**iTunes -- 2003**

**Today:**  
**74% of teens have an MP3 player**

# Digital native – 7<sup>th</sup> and 8<sup>th</sup> grade (ages 13,14)



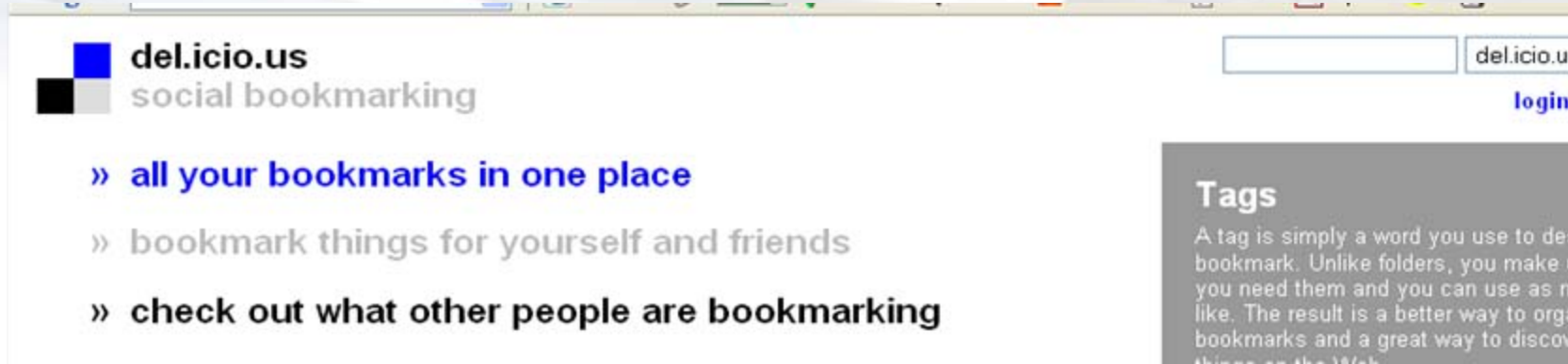
**MySpace - 2003**



**Facebook - 2004**

**Today:  
73% of online teens use social network sites**

# Digital native – Seventh grade (age 13)



## Del.icio.us - 2003

**Today:**  
**40%-50% of online teens tag content**

Digital native – Seventh grade (age 13)



### Imperial Palace Las Vegas at Night by [Asten](#)

1 comment ★ 2 faves 📄 1 note

Tagged with [vegas](#), [blue](#), [night](#), [lasvegas](#)...

Taken on [January 6, 2006](#), uploaded [January 11, 2006](#)

 [See more of Asten's photos](#), or visit his

## Flickr - 2003

### Today:

**~60%-70% of teens have digital cameras**

**~50%- 60% of online teens post photos online**

# Digital native – Eighth grade (age 14)

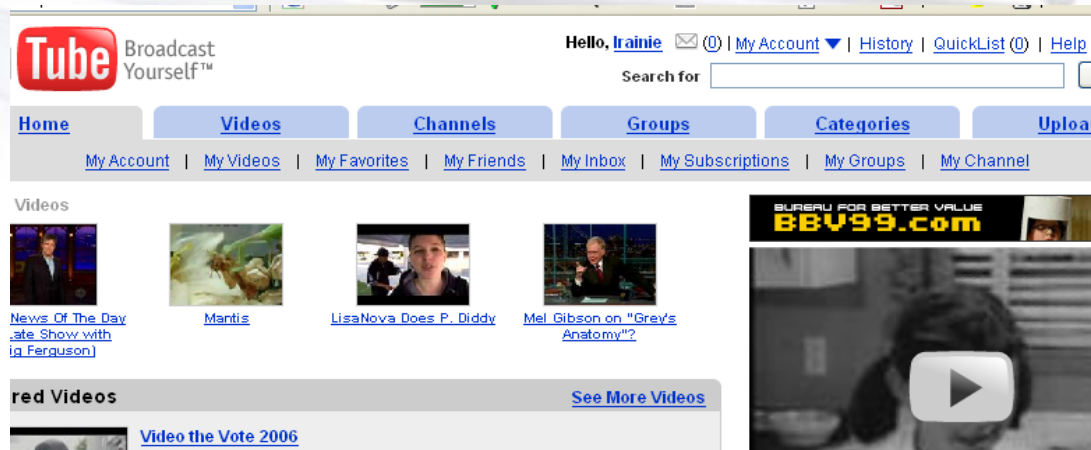
The screenshot shows the Podcast Alley website with a navigation bar containing links for Home, Add a Podcast, Podcast Software, Podcast Forum, What is a Podcast?, Alley Blog, and About Us. The main content area includes a search bar for podcasts, a list of top podcasts, and a featured article for 'BG Blast' with a 'Podcast Interviews' section. A sidebar on the right features a 'PodShow and BT' advertisement and a 'NEW! Top 10 for October' banner. A promotional banner at the bottom left offers a '\$5 SPECIAL PODCAST OFFER!' on orders over \$30, including domains and hosting.

## Podcasts – 2004

Today:

>25% of online teens have downloaded podcasts

# Digital native – Ninth grade (age 15)



## YouTube – 2005

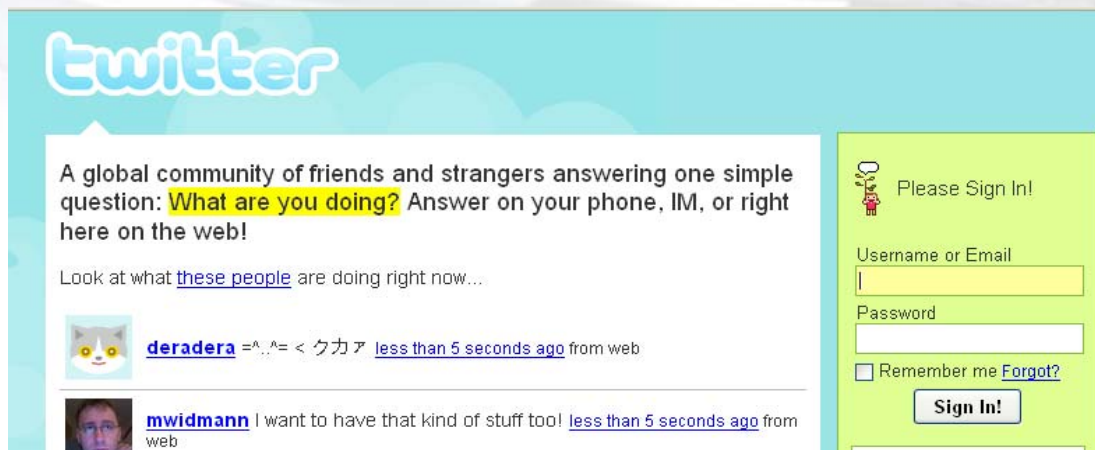
**Today:**

**~40% of teens have video cameras**

**~25% have uploaded videos**

**>75% view videos on video-sharing sites**

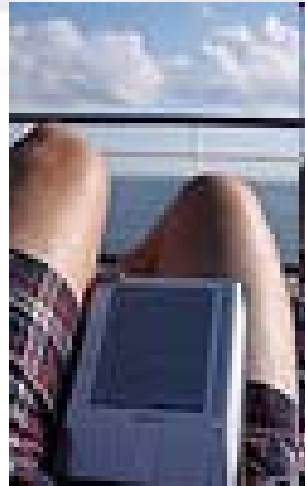
# Digital native – Tenth grade (16)



## Twitter – 2006

**Today:  
8% of teens use Twitter**

Digital native – 11<sup>th</sup> grade (age 17)



**Kindle – 2007**

**Today:  
3% of adults  
Teens ???**

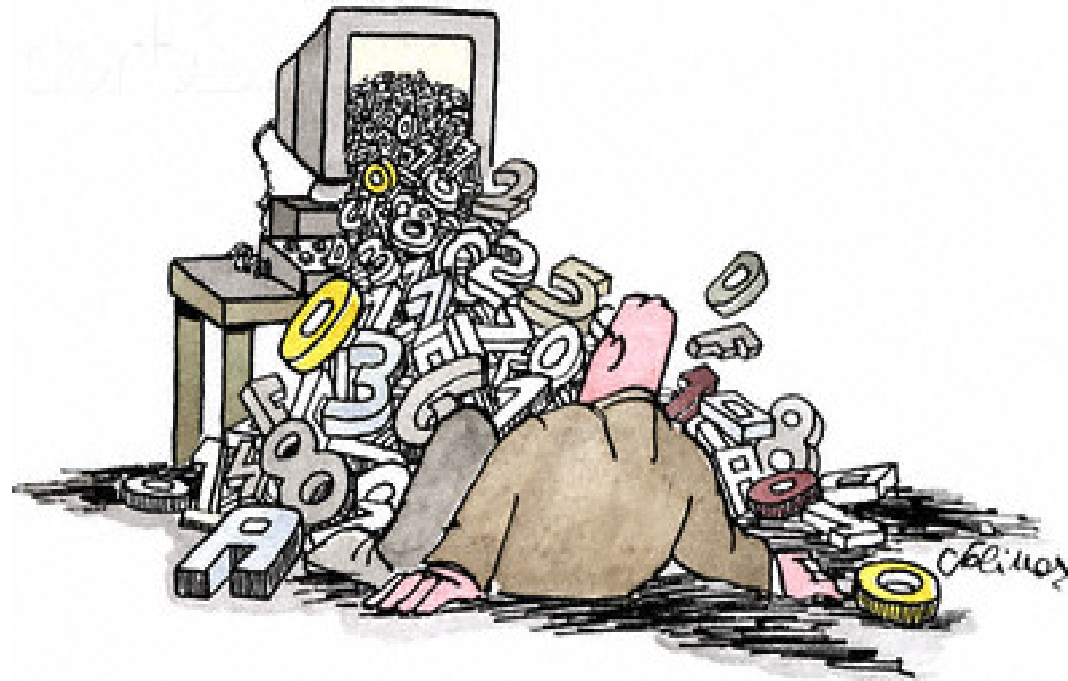


10 ways digital technology  
has changed things in the  
learning ecosystem

# Learning ecosystem change – 1

## Volume of information grows

-- Chris Anderson  
Hal Varian



## Learning ecosystem change – 2

**Variety** of  
information  
and sources  
of information  
grow



# Learning ecosystem change – 3

**Velocity** of  
information  
increases and  
smart mobs  
emerge

-- Howard Rheingold

Clay Shirky



## Learning ecosystem change – 4

**Venues** of intersecting with information *and* people multiply and the **availability** of information expands to all hours of the day and all places we are

-- Nielsen Company



## Learning ecosystem change – 5

People's vigilance for information changes in two directions:

- 1) attention is truncated (Linda Stone)
- 2) attention is elongated (Andrew Keen; Terry Fisher)



ANDREW KEEN

### The Cult of the Amateur

How the democratization of the digital world is assaulting our economy, our culture, and our values

"A thought-provoking and sobering book...truly interesting insight and research."  
Larry Sanger, Co-founder of Wikipedia and founder of Chromeium



# Learning ecosystem change – 6

The **vibrance** and immersive qualities of media environments makes them more compelling places to hang out and interact  
-- Metaverse Roadmap Project

## 1) Virtual Worlds



# Learning ecosystem change – 6

The vibrance and immersive qualities of media environments makes them more compelling places to hang out and interact

-- Metaverse Roadmap Project

## 2) Mirror Worlds





# Learning ecosystem change – 6

The vibrance and immersive qualities of media environments makes them more compelling places to hang out and interact  
-- Metaverse Roadmap Project

## 4) Life-logging -- Gordon Bell



# Learning ecosystem change – 7

**Valence** (relevance) of information improves – search and customization get better as we create the “Daily Me” and “Daily Us” – Nicholas Negroponte

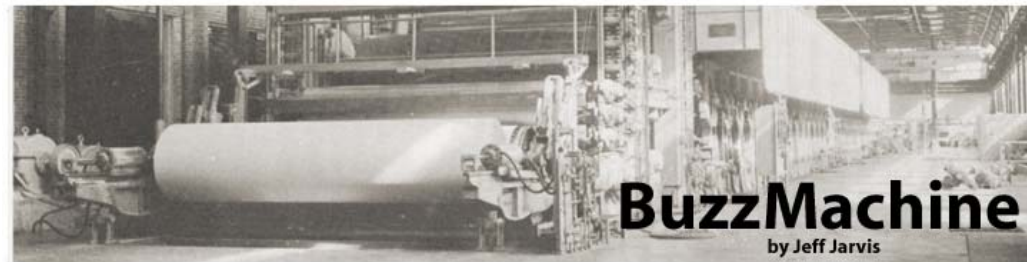
The screenshot shows the iGoogle homepage with a search bar at the top right containing the text "Google Search". Below the search bar are navigation links for "Home" and "Add a tab". The main content area is divided into several sections:

- pew internet - Google News**: A list of three news items:
  - [Parents Don't Think Internet Good For Kids - WebProNews](#)
  - [Using The Internet Wisely and Safely - NewsChannel 9 WSYR](#)
  - [Teens Online No Big Deal To Parents - Security Pronews](#)
- Pew Internet web site**: A section with a "Google™ Custom Search" box and a "Search" button. Below it is a link: [Create your own Custom Search Engine](#)
- Google Blog Search**: A list of three items:
  - [Pew Report on Pa](#)
  - [Online Games](#)
  - [New Pew Internet Use](#)
- Top Stories**: A list of three news items:
  - [US Levels Sanctions New York Times - all](#)
  - [California turns come Reuters - all 6143 rel:](#)
  - [Nobel laureate retires remarks New Ynrk Daily News](#)

# Learning ecosystem change – 8

The **voice** of information democratizes and the **visibility** of new creators is enhanced. Identity and privacy change.

-- William Dutton



## Broadband nation

December 7th, 2008

I've been offline in a UK castle with wi-fi only in the basement (but I suppose that's a miracle) and then in a Holiday Inn (what a fall) with gawdawful and gawdawfully expensive so-called broadband so I'll take this opportunity while sitting in the Apple store (bless it) to just join in the chorus of celebration that Barack Obama pledged to fix our gawdawful broadband status in America. Now let's speculate about just how ambitious we can be.

At the conference I just attended (a few posts on that later, when I can be online for more than two minutes) there was talk of trying to tax broadband providers here to subsidize (or some would say compensate) content creators. I think that's bassackwards.



XML

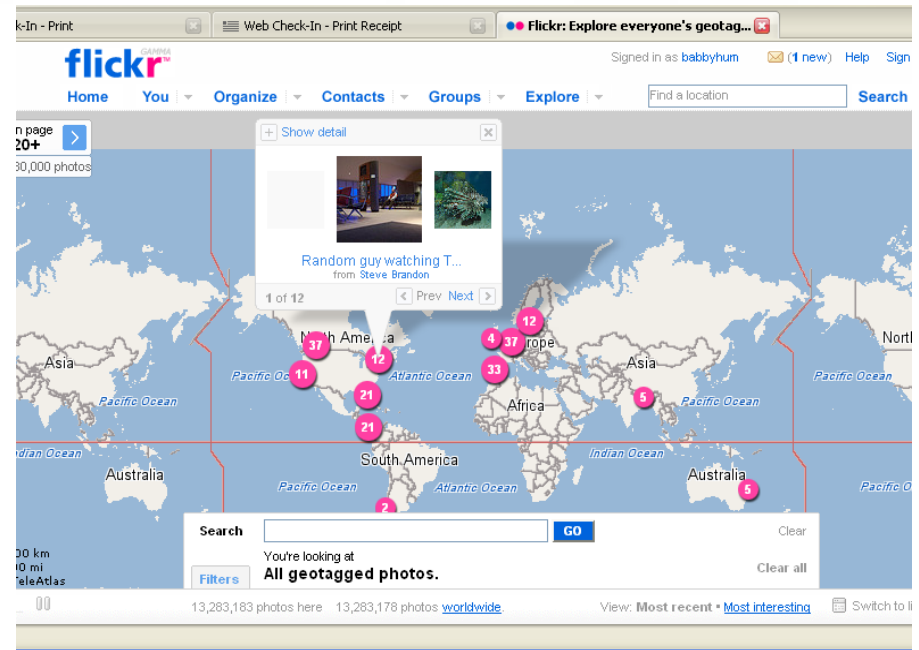
### General

- » [Home](#)
- » [About Me / Disclosures](#)
- » [Email Me](#)
- » [Tag Cloud](#)
- » [Rules of Engagement](#)

# Learning ecosystem change – 9

**Voting** on and **ventilating** about information proliferates as tagging, rating, and commenting occurs and collective intelligence asserts itself

-- Henry Jenkins  
David Weinberger



# Information sharing and evaluation

31% of adult internet users have rated a person, product, or service online

The screenshot shows the RateMyProfessors.com website interface. At the top, the site name "RateMyProfessors.com" is displayed in a blue banner. To the right, there are navigation links for "Home", "Forum", and "T", along with a search bar containing the text "Enter text to search". Below the banner, a breadcrumb trail reads "Home > United States > Pennsylvania > Penn State - University Park". An advertisement for "THE NEW 2007 LINCOLN MKZ" is visible on the left. The main content area is titled "Penn State - University Park" and includes the school's webpage URL (http://www.psu.edu/), location (University Park, Pennsylvania), and a link to "Wrong school? Find your school". It also states "Total professors: 3582" and provides a search function for finding professors by department, with a dropdown menu set to "All" and a "Search" button. Below this are two buttons: "Add a professor" and "Tell a Friend". A link to "Subscribe to Penn State - University Park RSS Feed" is also present. A "Rating Key" section shows a yellow smiley face for "Good Quality" and a green smiley face for "Average Quality", with the word "Hot" below. At the bottom, there is a "Browse Professors" section with a row of buttons labeled with letters A through T.

# Learning ecosystem change – 10

Social networks  
become more **vivid**  
and meaningful.  
Media-making is  
part of social  
networking.  
“Networked  
individualism” takes  
hold.

-- Barry Wellman

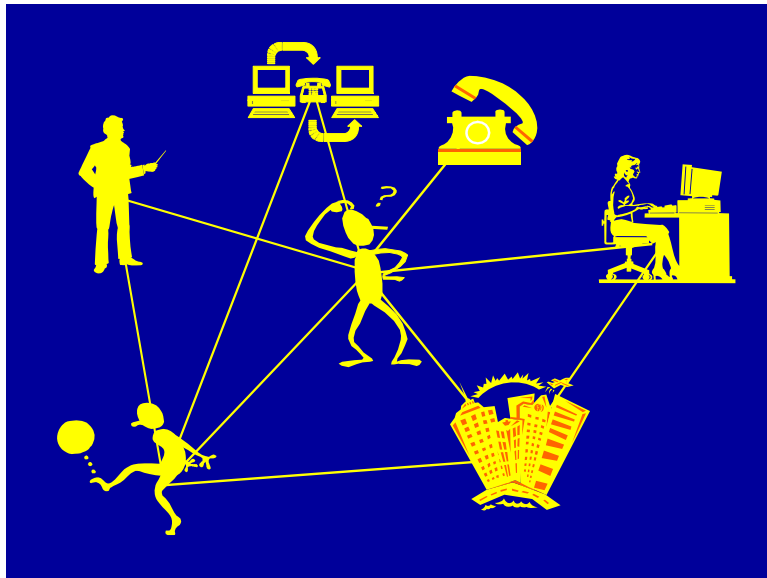


The image shows a screenshot of a Facebook profile page for Amy Weller. The page is titled "facebook" and "Site Tour". The profile information includes: Name: Amy Weller, Location: Manchester, NH, Sex: Female, Relationship Status: Single, Looking For: Friendship, Birthday: October 20, 1984, Hometown: Chicago. The Mini-Feed shows a post from October 30 where Amy posted a link to an Anthropologie Hodgepodge Scarf, and a post from October 27 where Amy and Akhil became friends. The page also features a "Site Tour" sidebar with links to "Getting Started", "Your Profile", "Photos and Notes", "Your Home Page", and "Your Privacy Settings".

# Behold the idea of networked individualism

## Barry Wellman – University of Toronto

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The turn from  
groups to social  
networks = a  
new social  
operating  
system



*Networked Individuals ...* have a different ...

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- Sense of information availability – it’s ambient
- Sense of time – it’s oriented around “continuous partial attention”
- Sense of community and connection – it’s about “absent presence”
- Sense of the rewards and challenges of networking for social, economic, political, and cultural purposes – new layers and new audiences

# Technology has helped people change their networks

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- Bigger
  - Looser
  - More segmented
  - More layered
- =
- More liberated
  - More work
  - More important as sources of support and information, filters, curators, audience

## New learners of the future

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- More self directed and less dependent on top-down instructions
- Better arrayed to capture new information inputs
- More reliant on feedback and response
- More attuned to group outreach and group knowledge
- More open to cross discipline insights, creating their own “tagged” taxonomies
- More oriented towards people being their own individual nodes of production



Thank you!

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