From Binary to Ubiquity: Who knew that 0 and 1 would be considered unknown culture makers?
by Karen Ellis copyright 2007

PLACE: EARTH ------- MEAT SPACE / CYBER SPACE - LANDSCAPE / CYBERSCAPE

MEAT SPACE TIME: AMERICA 1890 / 2007

INTERNET TIME: ISO Three months equals one year of ordinary time.

CONTEXT: INDUSTRIAL REVOLUTION TO PRESENT SPANS 5 GENERATIONS

OUR FOUNDING MOTHERS

Women invented networking, computer languages, and programming.

In 1946 ENIAC (Electronic Numerical Integrator And Computer ) was the first 30 ton Electronic Digital Computer. My father Jerome H. Ellis was just back from the WW11 and had the occasion be in the room with this computer. I don’t really remember the story about why he was there, but I do know that the women were the known as the original computers they were the ones who worked to make ENIAC run. Computing was their job. It was women’s work, and it was a women who literally found the bug that messed up Eniac.

Radia Perlman was dubbed the “Mother of the Internet”. Perlman’s algorithm forms a sort of road map to navigate the internet. Jean Bartik was one of the six women who programmed ENIAC. Kay McNulty Mauchly Antonelli graduated from
Chestnut Hill College in 1942 and was recruited as a human computer. Betty Snyder Holberton of Philadelphia and Rear Admiral Grace Hooper helped create Colbal and Fortran. Dr. Dorothy Danning is responsible for cryptography and data security. The actress Hedy Lamarr was the first to describe frequency hopping.

1891 Learn about the first Women Computers
Learn how Women Pioneers built the Internet.

Women’s Month

Just to put this in perspective In 1956 The original hard disk drive (IBM 305 RAMAC) stored only 5MB of data on fifty 24-inch disks and weighed over 250 kg (over 550 pounds). About the size of two large refrigerators and as tall as a man, you could lease the whole unit for about $250,000/year in today's dollars and not quite store two mp3 copies of Elvis Presley's "Hound Dog". The 50th anniversary of shipment of the first hard drive was Wednesday, September 13, 2006. Now The Explicit Multi-Threading (XMT) computer, can run 100 times faster than a typical PC and is simple enough for a high-school student to program. Computerworld

OUR FOUNDING FATHERS

Dave Farber is known as the Grandfather of the Internet and I actually know Dave <grin>
Many of his student "children" went on to be fathers of the Internet (like Postel etc), so Grandfather was a fair credit.

The first web server went on line in December 1990. There is of course no exact date for this, because we gradually came to a state in which the thing worked. It was somewhere towards the end of December that we felt it was sufficiently stable that it could be called "working". During 1991, a number of servers in institutes in Europe installed web servers. Then there are two other "important" dates: 12 December 1991 when the first server in the USA came on line (Stanford Linear Accelerator Center).

Jonathan B. Postel Internet pioneer in charge of the first domains, on a list that he actually just kept in a drawer. "Be liberal in what you accept and conservative in what you send." In 1977, BBN used TCP for the very first time on a UNIX system. In 1978, Cert, Jon Postel (1948-1998), then Director of the University of Southern California's Information Sciences Institute (ISI), Computer Networks Division, and Dany Cohen, in a meeting at ISI, decided to split TCP into two separate protocols. The result was TCP and the Internet Protocol (IP). TCP retained the responsibility for breaking up the datagrams and messages and
reassembling the packets at the destination. IP was responsible for transmitting the individual datagrams across the network. IP essentially addressed the "envelope" and ensured it reached its proper destination. This turned into the Internet Corporation for Assigned Names and Numbers, or Icann. Its job is to coordinate the Net's address book, the system that ensures e-mail goes where it's supposed to and Web addresses take you to the right pages. The work isn't glamorous, but every person who uses the Net relies on it being done correctly.

**Founding Father Paul Baran** (pronounced "BEAR-en") 2001 conceived the Internet's architecture at the height of the Cold War. In 1961, at the height of the Cold War, engineer Paul Baran sold the US Department of Defense on the idea of a failure-resistant communications method called packet switching. But because of roadblocks at AT&T and the Pentagon, it wasn't until the 1970s that the technology was finally adopted as the foundation architecture of the Arpanet - the precursor to the Internet.

We have Internet Pioneers like Robert Kahn & Vint Cerf who developed TCP/IP. Robert E Kahn Started the Internet project at DARPA in the early 1970s and Vint Cerf ran it from 1976-1982. By 1983, the technology had matured to the point that DARPA transitioned the ARPANET to the TCP/IP protocols and the operational Internet was put in place. The story of TCP/IP began in 1973, when Robert Kahn, a former Bolt Beranek Newman (BBN) employee who had joined DARPA after BBN had built and delivered the first node of what was then considered a new government/research network to UCLA, joined forces with Vinton Cerf, then a graduate student at Stanford. The experience Kahn had had with the Interface Message Processor (IMP) and Cerf with the Network Control Protocol (NCP) made them the perfect team to collaborate on the development of what was to become TCP/IP.

**The 60’s Sex, Drugs, Rock & Roll + the Internet Phreaks & Hippies**

Ma Bell controlled the wires and Captain Crunch and Joy Bubbles learned to trick the phone company. Each one learned how to whistle just the right frequency to place long distance calls for free. This was the new frontier. This was the challenge. How did the wires work? The only way to learn was to hack your way into the system"Go where no one dared go before" and just like Star Trek they did.

What was suggested 30 years ago in Start Trek is old hat. In Australia, researchers in quantum optics say they have "teleported" a radio-signal message in a laser beam, using the same kind of principles that enabled our fictional Scottish engineer hero from the 23rd century named Scotty to beam up Captain Kirk. Much of what now seems humdrum was first envisioned in science fiction - from mobile phones ("StarTrek") to fax machines (Philip K. Dick).
Now there is a patent for what appears to be warp drive USPTO patent #6,960,975. Doesn't this read like a Star Trek script? ["quantized vortices of lattice ions projecting a gravitomagnetic field that forms a spacetime curvature anomaly"]. And don't forget anthropologists and sociologists see Second Life the virtual world as a laboratory for studying human behavior that monetizes with Linden Dollars. Sherry Turkle, a professor of the social studies of science and technology at the Massachusetts Institute of Technology, recommends that therapists take Second Life seriously as tool for understanding their clients' innermost thoughts and desires. "You see someone really playing out the self that they want to explore," she says. "It's not always who they want to be. Sometimes they can be exploring a dark side of themselves."

“There is an interesting bit of history relative to Star Trek, the series. So far as I know, it is not anywhere else documented. I don't know how the connection was made but somehow Rodenberry et al made contact with a Harvey Lynn, the Administrative Assistant in the Physics Department of RAND Corporation through the 1960s. Harvy was asked to read many of the early Star Trek scripts for scientific appropriateness. He did so with the aid of his secretary, who many years later became my personal secretary here. I'm told that Harvey was responsible for inventing the word "phaser" among other scientific tradecraft of the series. He eventually retired to Texas from RDA (R&D Associates) but is now deceased so the details of this history are probably unrecoverable. However, his son, Harvey P. Lynn, still works at RAND in its computing facility. ~ Willis H. Ware RAND Corporation, Santa Monica, CA"

Sidney Samole is credited with inventing the first commercial electronic chess game after watching a Star Trek Episode where Spock played 3D chess against a computer.

“Scotty was our hero because he was one of us. He was an engineer buried in the bowels of the Enterprise, a section, which wasn't even in the main part of the ship. There he ruled, serenely, totally in control, obtaining supreme satisfaction in the knowledge that while the idiots on the bridge were supposedly in charge, he was the one who made possible their continued existence. Scotty embodied the benefits of technology and the "can do" attitude that pervaded the 60s."

PLAY

From the Meat Space of the Playground to the Educational CyberPlayGround

How it's changed From the meatspace playground to the CyberPlayGround in 30 years. No more physical boundaries.
I bought my first computer in 1990. It was a Mac. I used it to publish my book."Domino" I had collected children’s playground songs and chants with a tape recorder in 1977 – 1979 on the island of St. Croix U.S.V.I. Domino the book contained the printed collection of the live sound field recording that was made available on cassette. I did the work of a typesetter in pagemaker and brought it print ready to the plant.

My Netroots go back to 1991- I’ve been on the Web since before the beginning of the Web. I bought my first modem and connected to the internet in 1991. This was very exciting. This was the cutting edge going where no one went before. It was the best of times. There were lots of people there having fun. It was a kind place. I got my first email account from Jefferson University in Philadelphia.

Then I found out about something called the world wide web and something called a browser that lets you see it, see something called websites. And I see the first ones. I watched the world wide web come online. I went where no one’s gone before. It was great. Everybody greets everyone else. We are enjoying this. It’s cool. It’s safe, It’s ours. The internet is built by people you the never heard of. The internet belongs to us. It’s made by ordinary people, writing cool software that changes the world. Everyone if free to develop it, and we do.

Somewhere around 1994 the business world decides they want in on this thing. And now domain names are worth money. It’s the new real estate. And we are forced to let them on. The net wasn’t built for security. The dot coms money brought evil and money usually does. It’s no longer the place of academics, educators, hippies, early adopters, and the creatives. What was once a safe place now mirrors the meatspace of government, business, ecommerce, crime, worms, bots and all the nasty things that the meatspace brings cyberspace. Privacy and Security are gone forever. So for the special few there is always internet 2, but I'm getting ahead of myself.

By 1996 I thought websites had become interesting enough and decided to build one for myself. I had already archived 1000's of email on various topics of interest in the education space and had friends who were considered K-12 Internet Pioneers, the same folks who conceived and shaped erate policy for schools and networked the states school systems.As a result, I host the first and longest running K-12 mailing list called Nethappenings. By 1993 Internet pioneer Gleason Sackmann started collecting the first school websites came online and I now host this directory of K-12 schools which makes it the first website in the United States in the history of the world to do this. My website is called the Educational CyberPlayGround and launched with more than 1500 pages of content winning hot site awards from USA Today, New York Times and MSNBC which you can see displayed on the left side of this page and my movie Standing In The Shadows of Motown won 2 grammys. The movie was about The Funk Brothers who were unknown culture makers.
UNKNOWN CULTURE MAKERS

Computers and the Internet have changed how we work, learn and play.

The future of the world’s information is a collaborative process. Information is nothing but 1's and 0's. The form it takes is the media we call it. Digitized Data takes the shape of it’s container. Is it a printed piece of paper, a book that you hold in your hands, a PDF that behaves like a book or also include a movie and sound. Would I want this content delivered online or snail mail? Maybe Print on Demand or a PDF download would be best. There are so many things to consider.

There are so many new ways to distribute content. Would I want to share the music I collected from the American Virgin Islands in 1976 as mp3 files? Would I want to make them available for download from my site? Or shall I sell them on a CD or DVD or just give them away on the P2P network? How about using Flash to share a workshop by Alan Jabbour? Just wondering if the original live sound field recording was ever digitized by the Library of Congress Folklore Archive. Would I want to share the etymology of the word Jazz in a protected PDF and then show the thunderbolt of giniker in html.

PLAY CULTURE

The Importance of Play and Laughter

Eight Words for the Study of Expressive Culture:
character, innocence, consumer culture, and politics that carry us into the world of the historians of childhood and adolescence, of children and teenagers. Children and adolescents have agency usually ignored in the adult discourses about youth. Young people themselves have many resources (including folk cultures) for resisting adult, hegemonic goals in their socialization. Uncovering those resources for resistance are an important element in understanding the children and adolescents of history.

• "FREE PLAY excercises imagination. Imagination plus curiosity leads to information - and information to Knowledge." ~ Karen Ellis

• "Knowledge is limited. Imagination is more important than knowledge. I am enough of an artist to draw freely upon my imagination. Imagination encircles the world." ~ Einstein

"1997 The First "ARTSEDGE Virtual Conference” is now online! Enjoy presentations and join in ongoing online conversations with the likes of: Researcher, Dr. Frances Rauscher; Music Educator, Doug Goodkin; National Symphony Orchestras musician and educator, Yvonne Caruthers, and many others about this important, controversial, and timely subject! "I was one of the panalists, and you can read the paper here:

Upon completing the Indigenous Folksong Reading Curriculum, a thematic reading module, you and the other teachers involved will help each other to submit the material that has been gathered from your classroom. Everyone can share and compare!

Visit the National Children's Folksong Repository and honor all of us with submitting a song you remember. Find the National Children's Folksong Repository of indigenous playground poetry. It is the U.S. Online Library where you can Record American folksongs, jump rope chants, rhymes, songs, using your ipod, phone, or computer. Museums Can Capture Children's Play - PPT

WATCH THE VIDEO

30 some years ago I collected the children’s songs with a tape recorder now there are no physical boundaries. The child can simply use their cell phone to call and sing or chant the song. In a matter of minutes I’ve got it up online. 1-877-220-0262

Want to become a part of cyberspace history and preserve a part of our culture? Use your ipod, phone or computer to record the chants, songs, jump rope rhymes, or circle games that your students enjoy. Then submit them to the database so the students can hear themselves on the net. They can also listen to recordings made by other classes. Be part of a new way of recording oral history! Include this activity as art of your study of history and the songs people sang on the railroads, on riverboats, or as they immigrated.

In the Classroom:
Before recording for the website use a tape recorder to have students practice speaking clearly when recording. Have older students teach younger grades a chant or song to record. Directions for recording are included on the site. Include a link on your teacher website for parents to listen to the class recordings.

Should Folklorists Study the Internet?

Do you think Internet folklore a vastly important, ever-present genre that has been greatly neglected in folkloristics?

What Do Folklorists Do?
In 1989 they were administrators, archivists, bibliographers, biographer, community organizer, cultural critic, curator, dramatist, editor, film maker, performer, public servant, publicist, publisher, record producer, and Teacher.
I am more like Ken Goldstein, furthering folklore by publishing otherwise inaccessible works when collecting live sound field recordings, our oral tradition, using modern technology.

How does Web 2.0 impact folklore and folklorists? Our Net roots reach back to the industrial revolution. It’s roots are in women’s work. Internet roots are five generations deep. There is a lot of information known about the history of the Internet and how we use it. This is a very big story that needs telling. Internet folklore a vastly important, ever-present genre that has been greatly neglected in folkloristics. See Folklore in Education.

"Most of the content on the network is contributed by the users of the Internet, so what we're seeing on the Net is a reflection of the society we live in." ~ Vint Cerf

MIT’s Henry Jenkins co-director of the Comparative Media Studies Program at the Massachusetts Institute of Technology, was one of the first scholars to study Trekkies and other fans of popular media. For decades, he argues, those fans have been on the cutting edge of the trend of participatory culture that is now so popular on the Web. "We are seeing enormous experimentation into the potential intersections between commercial and grassroots culture and about the power of living within a networked society."

If you follow the history of recording music you’ll find the history of technology and how it changed the fabric of people's lives and the way the world does business. How the Internet disrupts the old distribution model way of doing business with the new Net way. When we are forced to think about The Commons and Copyright and Copyleft?

And how about Fair Use: Cultural historian, media scholar, author Siva Vaidhyanathan discusses how the Google Book Project threatens copyright.

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**Culture and Creativity**

Folklore studies networking ideas and knowledge of cultural issues and possibilities and try to understanding cultural infrastructure in relation to the economies and social dynamics of communities in the meatspace ie: development of cultural and creative spaces; planning and investment strategies for cultural infrastructure and cultural online realestate; and they are interested in collaborative approaches to enhancing the cultural vitality, creative potential, and competitiveness of cities and communities. Cyberspace / Cyberscape mirrors the Meatspace / Landscape.
Michael Preston coined the term "xeroxlore" but Photocopylore is described as email and chain letters, office technology has given new life to various forms of practical jokes, urban legends, and folklore. The term given to these sometimes funny, sometimes offensive bits of human nonsense that roll off photocopiers. It encompasses copying jokes or cartoons, xeroxing various items (natural and unnatural), fake memos, etc. The items are usually office-related, such as spoof agenda for meetings, spurious descriptions of ridiculous training programs that all staff will allegedly be required to attend, and so on. Names may be whitened out and replaced with someone in the office, making it a joke on a particular person, or details may be altered making an item more topical.

Michael Hauben coined the term Netizen "While the prevalence and universality of the Internet today may lead some to take it for granted, Michael Hauben did not. A pioneer in the study of the Internet's impact on society, Hauben helped identify the collaborative nature of the Internet and its effects on the global community. Credited with coining and popularizing the term netizen (net + citizen), Hauben, with his mother, Ronda, co-wrote the seminal Netizens: On the History and Impact of Usenet and the Internet (IEEE Computer Society Press, 1997), which outlined the growth and role of the medium in the world and was published in both English and Japanese.

"To account for one folklorists growth, I fall back upon anecdotal descriptions, steps on the staircase to cultural criticism."
~ Archie Green

I am a Netizen.
The children of today will never know anything but internet as their primary point of social contact. Netglish is their ESL. Collaboration is the norm. Nothing is linear. Bits and Bites rule their world not wires. Everyone is a creator. Everyone is a distributor. I am the internet. I helped build cyberspace. I am just one of the "folk" who put the content up there. For better or worse it is the single biggest resource that the world’s people have ever built, since humans built anything on earth. It is a collaborative Folk Art.

Hippies gave us the World Wide Web where finally all thoughts and information are free. This is the real legacy of the 60’s way more powerful than the printing press. The 8th wonder of the world is the little www dot aka the World Wide Web :-)  

best,

Karen Ellis

"LITTLE AX CUT DOWN BIG TREE " ~ U.S.V.I. West Indian Proverb
A woman may be small, but will accomplish big things.
Only the Arts can turn raw data into something we call information and then give to us in a way we comprehend. Turning data into the Knowledge that can explain us - to ourselves is an Art." The true power of the internet resides in the public databases. See Knowledge Management

K-12 "HIGHER ORDER" THOUGHT PROCESSES ARE: classifying, inferring, hypothesizing, generalizing, valuing, relating, and synthesizing." sounds like Dispositions of Mind to me.

Traditional Folktales in the Classroom

Story Telling - the Oral Tradition, Bards, Ballads, Folkmusic, Folktales & gossip used in the classroom.

1920's People began listening to phonographs and radios The fabric of passing of songs down from generation to generation started to give way. Songcatchers (which refers to anybody who collects songs, whether a singer or an outsider)

"I found this period of time very exciting because there was a real clash between the modern world and the primitive world and it was all exploding in this one isolated place. The battle between progress and tradition being waged then is one that still continues," adds Greenwald.

Greenwald also gave to Dr. Lily Penleric something Olive Dame Campbell and the other song-collectors of the early 20th century never had: a primitive, fragile recording machine she drags into the hills not unlike the piano in Jane Campion's "The Piano." This first-generation machine recorded directly onto wax."

Greenwald: the role of women in preserving Appalachian ballads. "I realized that songs are very much a women's tradition - handed down from mother to daughters, from grandmothers to children around the house. It was really exciting to me to discover a form of music that was primarily created by women, passed down through the generations by women, and even discovered by women," explains Greenwald. [source]

National Children's Folksong Repository

Now we can simply use the cell phone to call 1-877-220-0262 and sing or chant the song. In a matter of minutes I’ve got it up online.

Folksonomies -- Web projects that let users "tag" items with keywords and create their own collaborative categorization systems. And to be sure, there have been plenty of folksonomic success stories. Sites like Flickr (which lets users post and tag images) and del.icio.us (which does the same for Web pages) have built up reasonably robust classification systems, and plenty of blogs

More Teens and 'Tweens Are Creating Content and Connecting Online for Educational Benefits

Offering Schools New Opportunities to Use Technology Reports New National
online behaviors of U.S. teens and *tweens shows that 96 percent of students with online access use social networking technologies, such as chatting, text messaging, blogging, and visiting online communities such as Facebook, MySpace, and Webkinz. Further, students report that one of the most common topics of conversation on the social networking scene is education.

Nearly 60 percent of online students report discussing education-related topics such as college or college planning, learning outside of school, and careers. And 50 percent of online students say they talk specifically about schoolwork.

Students report they are engaging in highly creative activities on social networking internet sites including writing, art, and contributing to collaborative online projects whether or not these activities are related to schoolwork.

Today, students report that they are spending almost as much time using social networking services and Web sites as they spend watching television.

Really Thinking About Things

IT is heartening to learn that a member of the cyberelite cannot figure out how to turn off her iPod, and that she sometimes fumbles new programs on her laptop. “That’s why they invented 16-year-olds,” said Sherry Turkle, a psychologist and M.I.T. professor who has been studying the folkways of computer culture for over two decades (since long before the rest of us knew to put “culture” and “computer” in the same sentence).

"Do you have wi-fi?" A logical question from any teen-aged second cousin once removed. It was the type of question, anyway, that New York Times contributor Roger Mummert received at the beginning of a family gathering at his house http://www.nytimes.com/2007/08/24/travel/escapes/24Ritual.html?ex=1345608000&en=45da405b7d449f65&ei=5090&partner=rssuserland&emc=rss

the "first inkling of how the vastly expanded electronic and informational needs of houseguests would flavor our time together. Soon guests were positioning themselves to get dibs on one of the three computers in our Long Island house the way they would otherwise line up to jump in the shower." In the UK and South Korea, there are probably already unwritten rules of etiquette about texting at social and family gatherings, and those sensibilities will undoubtedly develop the world over, as we adjust our human interaction to increasingly ubiquitous digital connectivity.
In the future, schools that incorporate social networking tools in education can help engage kids and move them toward the center of the learning process.

National Educational Technology Standards for Students - what young people should know about technology and what they should be able to do with it before graduating." This full-color booklet is an essential resource for anyone involved in PK-12 education. The Internet is the Ultimate Search Engine built by the world.

THE EDUCATIONAL CYBERPLAYGROUND
http://www.edu-cyberpg.com

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