Are we entering a world of perpetual visual contact?

James E. Katz, PhD

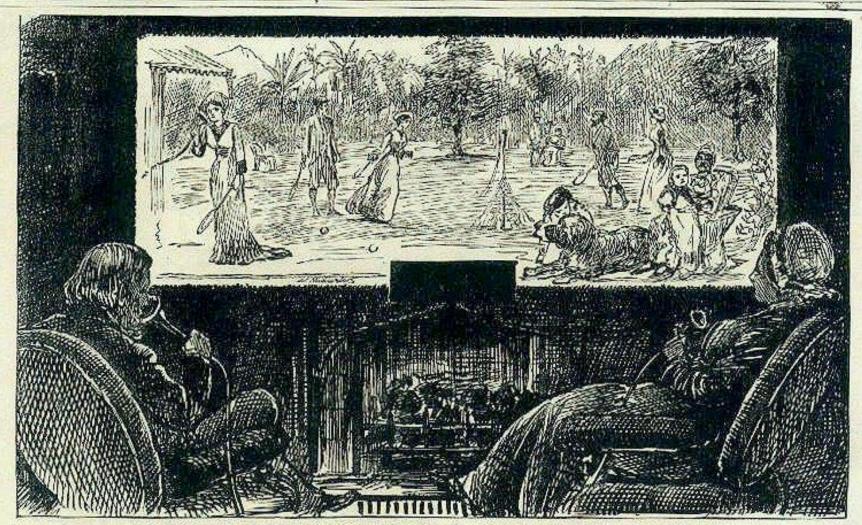
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Perpetual visual contact envisioned -135 years



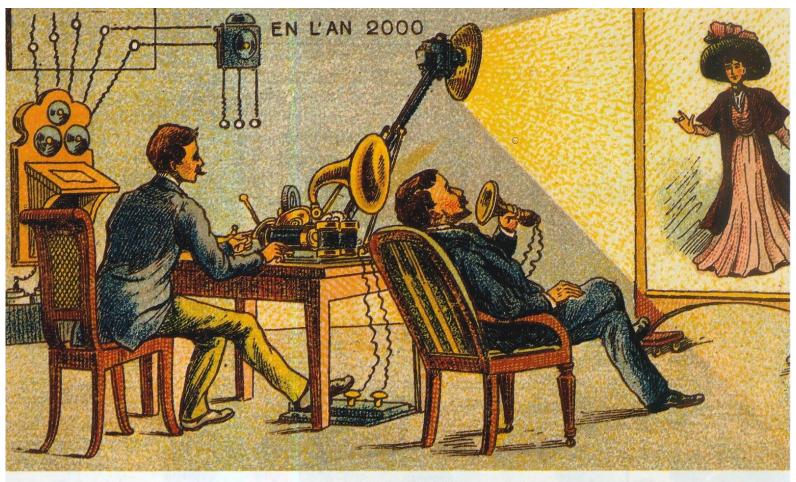
EDISON'S TELEPHONOSCOPE (TRANSMITS LIGHT AS WELL AS SOUND).

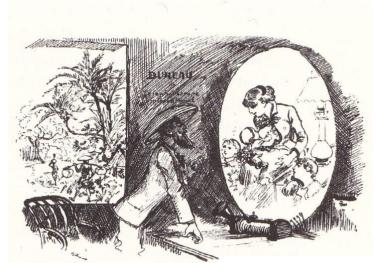
(livery eventing, higher quing to bed, Paper- and Materfamilian set up an eladric conserve-observe over their hadrons mantel piece, and gladden their eyes with the sight of their Children at the Antipodes, and converse gaily with these through the wire.)

Principalities (in Wilton Place). "Beatrace, come closed, I want to whisper." Beatring (from Ceylon). "The, Para dear." Principalities. "Who is that charming young Lady Playing on Charlie's side?"

Biolicie. "Suc'n most come over from England, Para. I'll impussions you to her as soon as the Game's over?"

The concept (early version)





 ${\it Keeping\ in\ touch\ with\ loved\ ones}$



SULFATIN LANÇAIT UNE CHAISE A TRAVERS LE TÉLÉ.



"Future possibilities of wireless telegraphy," St. Louis Star, 2-20-1902



What you'll use is called, simare talking to, and let them see you. on with Bell Telephone Laboratories. build for the future.

The Picturephone set is just ply enough, a Picturephone® set. one of the communications of the lar phones and equipment for your Someday it will let you see who you future Western Electric is working Bell telephone company. But we also

Western Electric builds regu-



Do people really want to see each other?



A logical extension of today's telephone service . . .

Bell System introduces PICTUREPHONE service

Both ends of telephone conversations are pictured; people phone by appointment from family-type booths in attended centers.

New York (Grand Central Station), Chicago (Prudential Building), Washington (National Geographic Society Building) have service.

now lets callers see as well as talk attendants at each local center help on the telephone. And "hands-free" if they wish.

For the first time, people can make a of the other cities. visual telephone call to another citythe latest example of the research, invention and development that are constantly improving the communications we provide.

The new service is being offered in the nication by telephone.

Bell System PICTUREPHONE service cities listed at the left. Bell System callers enjoy prearranged face-to-face visits with friends or relatives in either

> Further development of PICTURE-PHONE service is still in the future. But the service is another step toward our goal of providing you with better, warmer, more nearly complete commu-







Lady Bird Johnson on the Picturephone, 1969

Anatomy of a failure, 1979

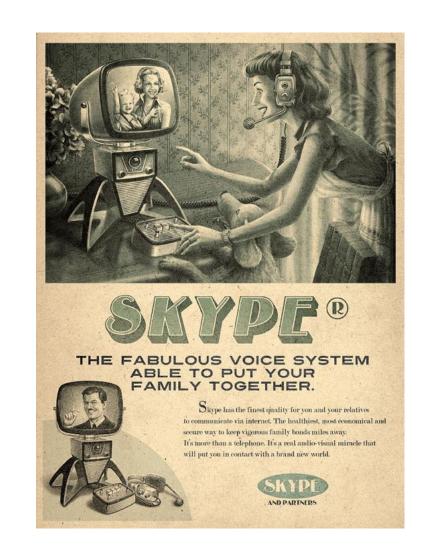
- "The inescapable conclusion that most business customers and residential consumers simply had little need for two-way, face-to-face visual telecommunication.
- Picturephone's market failure had little to do with either technology or cost. . . little incremental value compared to a telephone call -- and perhaps even negative value for some users."
 - A. Michael Noll <u>Telecommunications Policy</u>, vol. 16, issue 4, pages 307-316

"Anatomy of a failure"

- Cost!
- Little to no additional external equipment
- Installed base, "pair problem" largely solved
- Simplicity
- Video optional



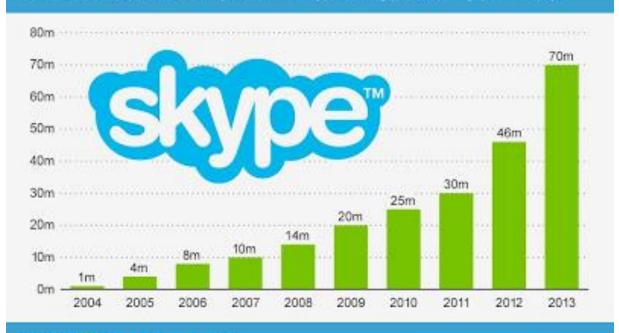
"Anatomy of a success"



Skype? Yes!

Skype Connects up to 70 Million People at the Same Time

Number of users concurrently online on Skype during peak activity (in millions)



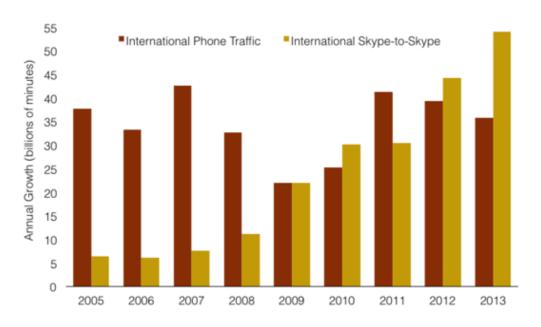


Mashable

Source: Skype Numerology Blog

Skype's presence

For international phone calls on every mobile and landline network in the entire world: 4 in 10 are on Skype



Look beneath the bonnet

- How is Skype perceived
- What's up with its uses?

Outline of talk

- Contemporary attitudes of select users
 - Survey of Boston University students
- What do people actually do with Skype?
 - Qualitative interviews and reports
- Implications
 - Prospects for perpetual contact
- Note please:
 - Exemplary, not encyclopedic; emphasis on visual
 - We don't pretend to survey all uses!

Quantitative results: USA

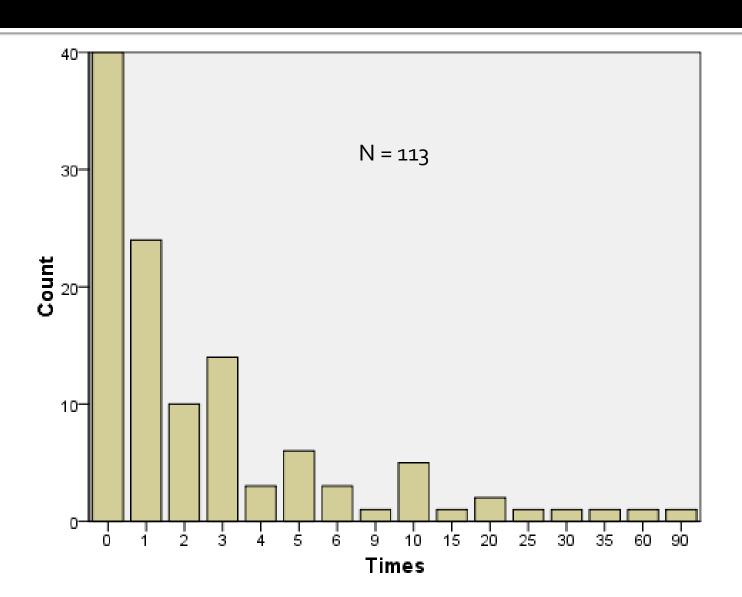




Survey: Boston University

- March 2014, part of a larger survey
 - UG communication research class
 - Age range: 19 -22
 - Females were vastly overrepresented
 - 92 vs. 21, or approximately 4 to 1
- Of 114 respondents, all but 2 used Skype at some point
 - Both non-users were female.

Skyped in last month?

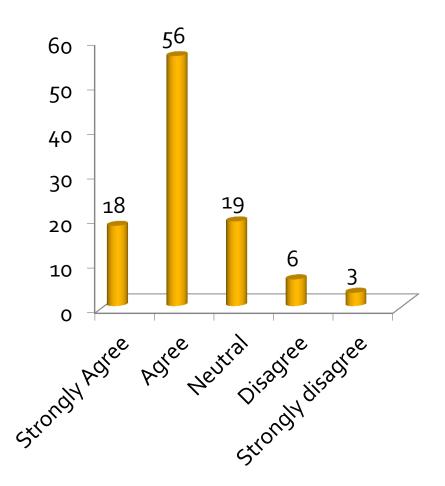


Skype versus a phone call?

- "When calling someone, I prefer Skype over a phone call"
 - Only 5% strongly agreed they preferred Skype and another 12% agreed
 - Essentially free buckets of minutes in US

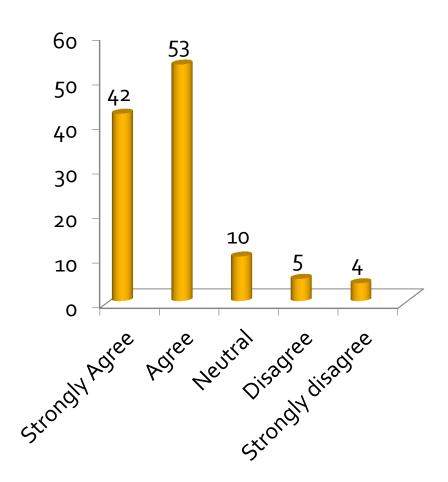
More personal than texting?

- "Skype is more personal than textbased communication (email, text messages)"
- Nearly three quarters (73%) either SA/A agreed



Keeping in touch

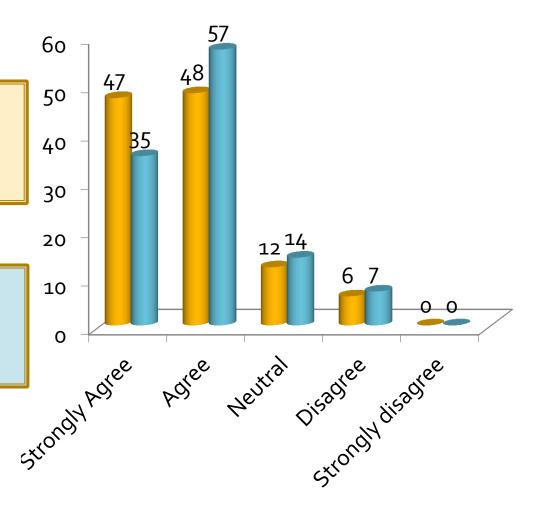
 "I Skype to stay in touch with family and friends that live elsewhere."



Friends vs. family

SKYPE POPULAR FOR BOTH, BUT MORE SO FOR FAMILY

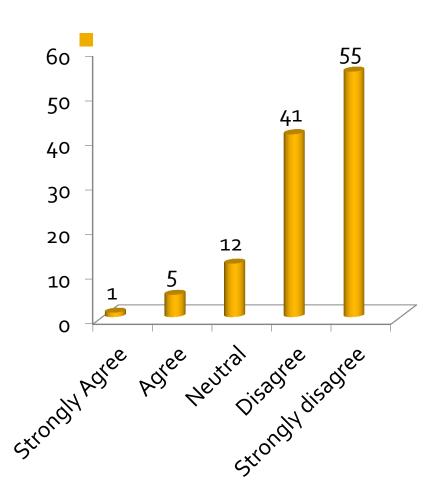
- "Skype is a good way to communicate with my family"
 - N = 113 Mean = 1.80
- "Skype is a good way to communicate with my friends"
 - N = 113 Mean = 1.94



Face-to-face trumps Skype

- "I sometimes prefer to Skype with someone than to see them in person"
- N = 114

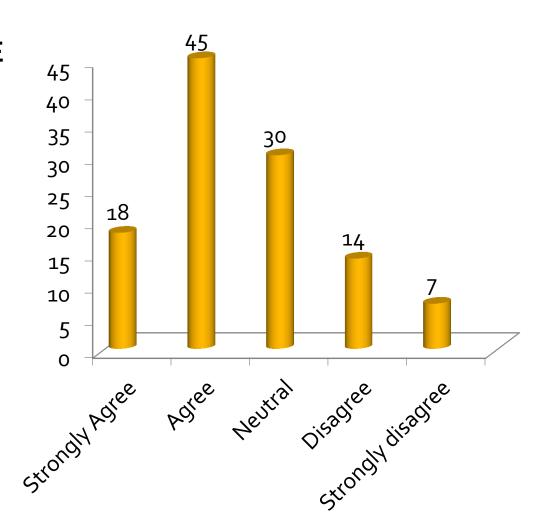




More personal than phone

BUT BEATS TELEPHONE

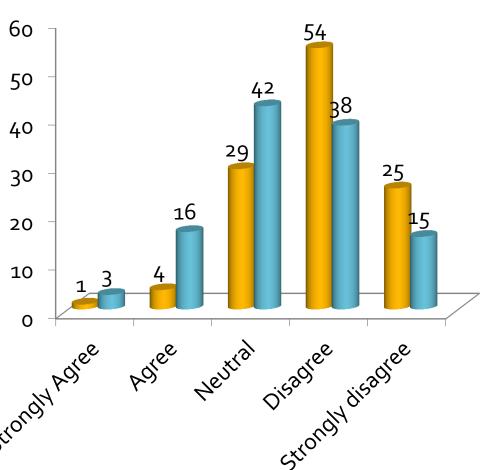
- "Skype is more personal than phone conversations"
- N = 114



Getting to know you

SKYPE BETTER FOR PRE-ESTABLISHED RELATIONSHIPS

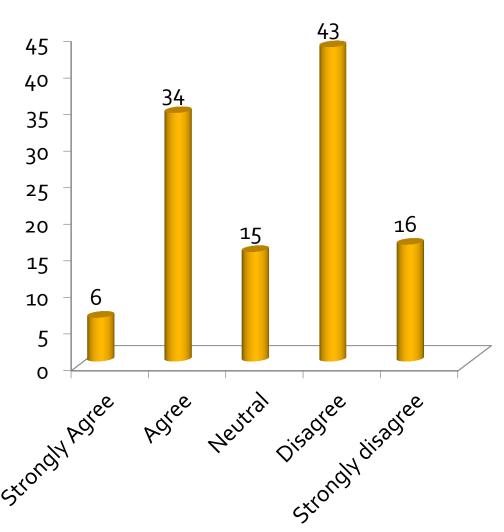
- "I like Skyping with new people"
 - N = 113 Mean = 3.87
- "Skype is a great way to get to know someone"
 - N = 114 Mean = 3.40



Hanging out

MANY HANG OUT; MANY DON'T

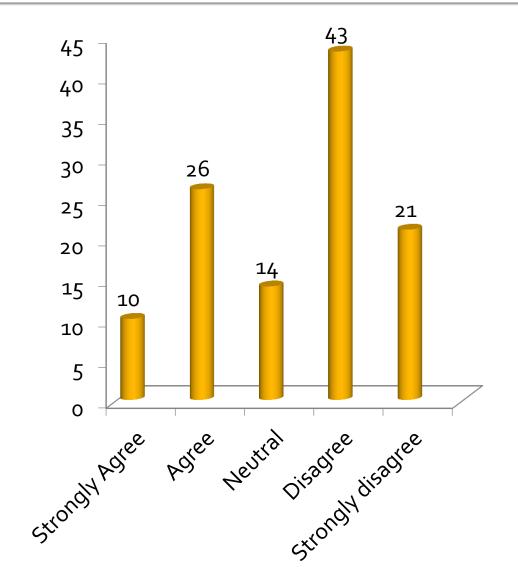
- A little over one third (35%)
 agreed or strongly agreed
 that they like to use Skype
 just to hang out with
 someone
 - On the other hand, more than half do not appear to like doing this
 - Suggests a great deal of "hanging out" among a small percentage



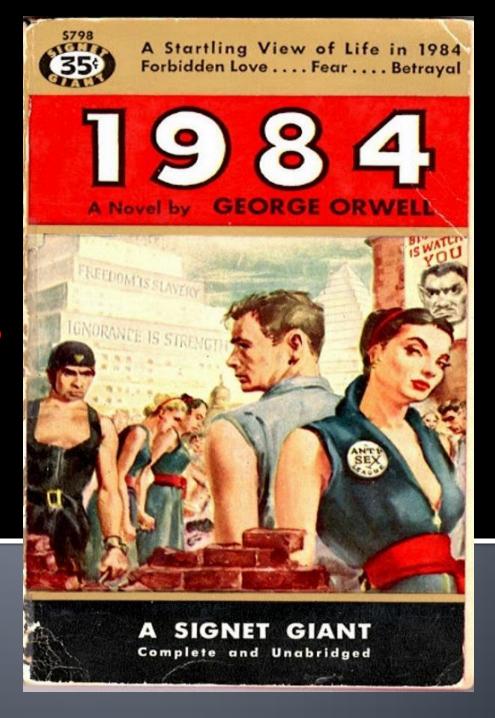
Leave Skype channels open?

SESSION LEFT OPEN?

- Many like to leave Skype channels open while they do other things
- About one-third like to use Skype in this way (32%)
- "I often leave a Skype session open while I do other things"

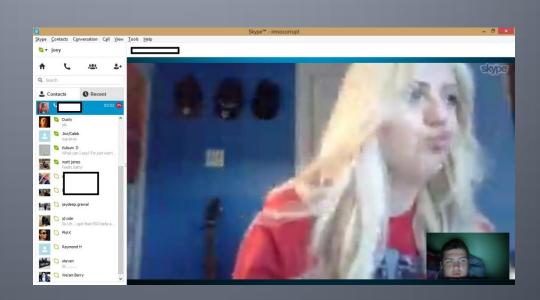


Skype = Big Brother?



Qualitative analysis

Casual sampling, ethnographic interviews



Visual telephone

- What do people do with Skype that they've done before?
 - Phone calls
 - Keeping up with family
 - Coordinating business
 - Meetings
 - Remote teaching
 - Job interviews



Novelties due to visual component

- Virtual cohabitation
- Virtual accompaniment
- Engaging new interactants
- Distributed domestic work



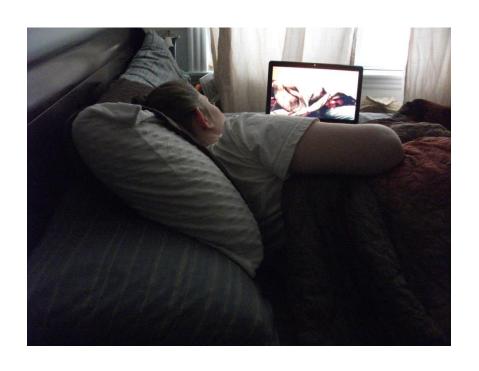
Virtual cohabitation

- Examples
 - Texas <--> New Mexico
 - Massachusetts <--> NYC





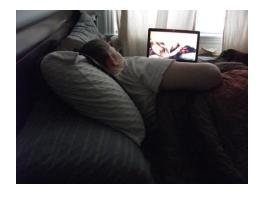
Texas & New Mexico



"We have Skype on in the morning because we fall asleep on Skype...It feels normal and it just becomes a habit in your life... It's almost like it's kind of like getting to sleep in the same bed and waking up next to them except not having them physically there. But having their presence there...

Texas & New Mexico

"having their presence there"



[In the morning] He'll get up, get ready for work, while I'm still asleep and he'll just carry the laptop around the house with him. he'll bring the laptop in the kitchen and pack his lunch and then he'll bring the laptop in the bathroom and take a shower.

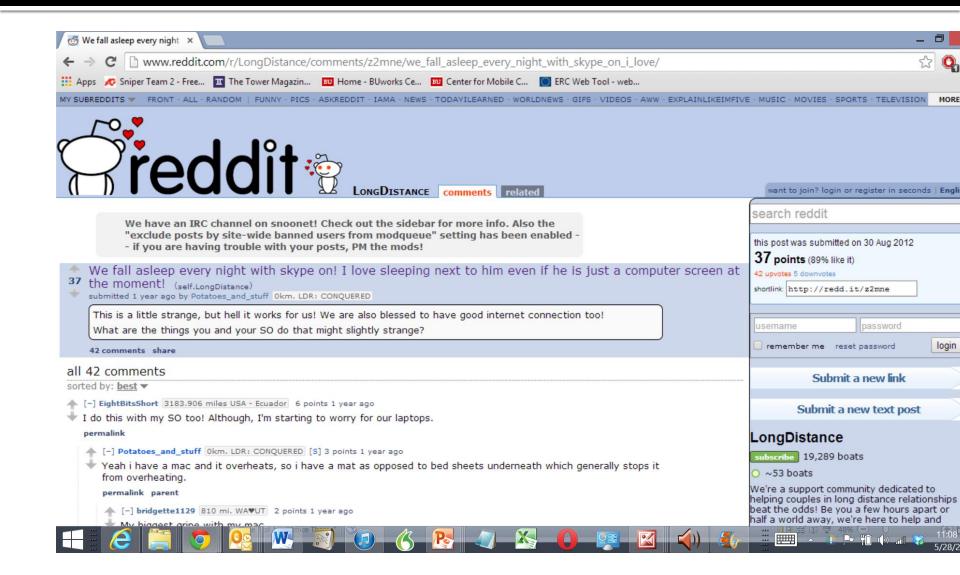
The morning stuff and the falling asleep waking up together stuff is the critical thing for the both of us. It is kind of the most important activity on Skype."

U MASS Student

"They were in this long distance thing where they only saw each other every couple of weeks. And they would Skype all the time. Literally always Skyping. And when I say literally I do actually mean literally. They would turn Skype on before bed and chat with her partner and then they would just leave it on. They would just leave Skype on all night when they went to bed. And they would have the computers running, Skyping in the dark room!"



"We fall asleep every night with Skype on"



Virtual accompaniment

Mobile viewing and virtual tours, Skyping from car, garden





Irish father living in Boston

"[After Red Sox game] we Skyped with them talking to my son in the back of the car...seeing scenes from our daily life is very meaningful to them. If it's through Skype as well. "Oh they are on the street where we go for coffee." That's more interesting to them than any tourism stuff. . . . they really enjoy feeling as though they were part of the outing. And not just the pre-planned somewhat artificial setting of sitting at the computer."



90-year old grandmother

"Skype is a lot more personal than any of the others because you can see the expressions on their faces and things like that. You can see them get up, move around, they can go get something to show you. What they've been working on. Maybe they made something new and they can hold it up. Just that kind of thing you can't do on Facebook or telephone or anything else. Toinette [her daughter] will bring her poodle in for me to see her new haircut or whatever. It's really nice. I can go out in the yard with her. She's got a portable computer she can carry out on the porch and show me her flowers and all that stuff too. "



College student gives virtual tour

"The most recent one I gave was probably when my good friend was in Sweden and we had all just moved into our new digs on campus at the beginning of September. So my other friend who was here and I Skyped Lisa in Sweden and brought her around the new house and like showed her all the rooms, showed her our rooms, showed her the balcony where everyone goes to smoke. And sort of like popped in on people and showed Lisa their faces and they waved and said, "Oh hi! Miss you! This is my room! Can't wait until you're back!""



Engaging new interactants

- Virtual tours
- Going to the environment
- Pets





Visiting Florida

"We have a friend who left school to move to Miami and now he works as a lifeguard, living this very bohemian cool life. And we are up here in Massachusetts where it's freezing still and it's May and it's still 45 degrees and we had snow in April. So Skyping with him is this whole thing because it's like going to the beach. 'Oh we're going to Skype Carter! He's probably on the beach drinking a margarita right now.' When we Skype him yeah he has this beautiful view of the Florida sunset or whatever awesome thing he's look at. So that's an experience for us."



Skyping with pets

"'I want to pet my cat. I miss my dog. Please show them to me!' Sometimes my sister gets annoyed, 'Come on! They don't understand. Talk to me! I actually understand you and your words. Stop cooing to the cat!"



'Chloe' the cat (from a famous philosopher)

"...been very fond of Chloe and so we Skype my daughter and 'speak' to both of them as they lie on the bed ... Another daughter who has a cat of her own 'Charlie' also brings him to the screen to let us see him and respond to our voices. . . . real benefits in keeping fresh the sense of family."



Pets as co-participants

"My mum always brings up my pup so I can talk to her, and we often leave Skype open while we both work on our stuff and talk intermittently."





g/orangutans-to-skype-between-zoos-with-ipads/ The Tower Magazin... 🔟 Home - BUworks Ce... 🔟 Center for Mobile C... 🧱 ERC Web Tool - web... Orangutan Outreach ABOUT US / HELP US / PROJECTS & PARTNERS / MULTIMEDIA / MY ORANGUTAN(S) HOW CAN I HELP? ORANGUTANS TO SKYPE BETWEEN ZOOS WITH IPADS Back By Sebastian Anthony on December 30, 2011 1. ADOPT Source: Extreme Tech For the last six months, orangutans — those great, hairy, orange apes that go "ook" a lot — at 2. DONATE Milwaukee zoo have been playing games and watching videos on Apple's (seemingly ubiquitous) iPad, but now their keepers and the charity Orangutan Outreach want to go one step further and enable ape-to-ape video chat via Skype or FaceTime. 3. SHOP Orangutans, like their great ape brethren (gorillas, chimpanzees, and humans), are 4. REACH OUT intelligent, inquisitive creatures — and, perhaps hinting at our shared genetic ancestry, they find the shiny, bright allure of an iPad almost irresistible. So far their favorite iPad pastimes have been games like Doodle Buddy and Flick Flick Football, and watching videos. One of the E 84 👂 🔠 orangutans, a 31-year-old called MJ, is apparently a big fan of David Attenborough's nature documentaries. "The orangutans loved seeing videos of themselves - so there is a little vanity going on - and they like seeing videos of the orangutans who are in the other end of the enclosure," Richard Zimmerman of Orangutan Outreach said, "So if we incorporate cameras, they can watch each other." And thus the idea of WiFi video chat between orangutans - and eventually between zoos - was born.

Now, this might just sound like a bit of folly — Orangutan Outreach is quick to note that these iPads were not bought with public donations — but just think of the research possibilities!

Inter-animal communication

APPS FOR APES

- "Skype isn't for humans only. At Cameron Park Zoo in Waco, Texas, orangutans Mei and Mukah are rewarded for completing tasks by being allowed to communicate via Skype with orangutans in other zoos."
 - www.themalaymailonline.com/t ech-gadgets/article/skypemarks-10-years-of-shrinkingtheworld#sthash.YHgroDGT.dpuf



Inter-animal communication

APPS FOR APES

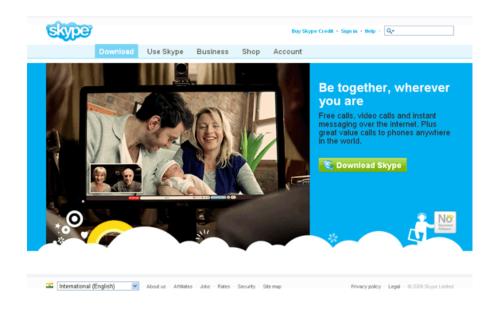
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Distributed domestic work

- Babysitting
- Animal husbandry





"The couple met in China..."

"The grandmother [in China] babysits the kids through Skype. She watches them in the living room while the daughter is cooking dinner in the kitchen. Then if the grandmother sees something that is of concern then she yells out through Skype. Her daughter turns around and intervenes with whatever is going on with the kids in the living room."





Animal husbandry

My cousin's farm in Ireland is a dairy farm, and the children are distributed around the world... They built an intranet inside the farm. Then as cows start to calve, the calving takes place over a 24-hour clock, the person in Ireland hands off the viewership to the people in California. They then watch the cows with this intranet on their way to work and while there are at work. They then handed off to the family and Australia. Then the family in Australia hands it back to the family in Ireland when they wake up . . . That way the cows are monitored 24 hours a day in case there are problems"



Management of interaction

Issues to interaction

What problems are cropping up?

- Ancillary management issues that people encounter/are exacerbated by using Skype
 - Coordination and scheduling, because for many it represents a much greater investment
 - Appearance preparation
 - Management of appearance, eye contact to camera rather than screen, lighting, leaning into the screen to get nice head size



What problems are cropping up?

WITH CAMERA . . .

Requirement of
 "face time"
 making it
 impossible to
 multi-task (as a
 form of "losing
 face" such as
 doing the dishes
 while talking)



Concentrate While Telephoning

Concentrated, courteous attention given to a telephone talk is a mark of respect paid to the talker that is appreciated.

It is almost impossible to carry on a satisfactory telephone conversation with a man who talks with a cigar in the corner of his mouth, holds his telephone at an awkward angle and has his attention on something other than what you are saying.

Frequent interruptions and requests to repeat mar the pleasure of the talk. Concentrate on what is being said and talk with a smile.

Cooperation Quickens Telephone Service



The Chesapeake and Potomac Telephone Company

Asymmetry caused by camera

- "I had the usual nerves before my interview. ... when I first turned on the video, my interviewer had his camera turned off.
- It would have been awkward if I turned my camera off and on again so I just went through the interview with a black screen. It was a bit like talking to myself.
- quite disconcerting"

www.bbc.com/news/magazine-21334710

Framing the picture

- <u>@emilywattles</u>: "I have a Skype job interview so I cleaned one square of my room so that I look responsible"
 - www.bbc.com/news/magazine-21334710

Conclusion

- Analyzed selective set of uses and concerns;
 many issues and contingencies not addressed
 - Many qualifications necessary
- Communication technology is allowing us to glue back together our fractionated lives
- Reduces and repairs problems introduced by geographical mobility and convenient, lowcost transportation

Implications: Being there/here

- Social interaction, relationship maintenance eased
- Helps overcome liabilities of progress in the field of mobility technology
 - Personal, physical, socio-economic, trans-border
- Technology solving a problem technology created

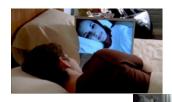
Vanquishing distance

- Being there
 - HD-like cameras and full-fidelity processed sound, enables us to vanquish distance in all but the tactile sense
 - (and even that limitation is changing)
 - In fact, it can be better (i.e., enhanced) compared to ordinary face-to-face interaction

Long-standing dream: Perpetual contact despite distance















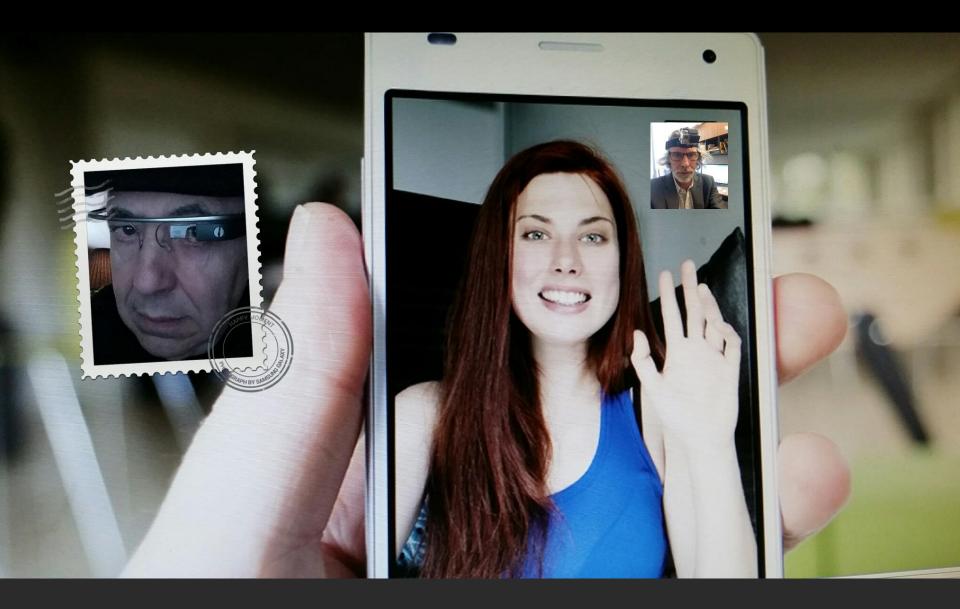




Distance vanishes



Köszönöm. Comments?



Köszönöm!

