

THE LOST ART OF PHONE PHREAKING

Wednesday, September 21, 2011 - 04:13 PM

By [Sean Cole](#) : Producer, Radiolab

Share [Tweet](#) 17 [Like](#) 20



A "Blue Box" constructed by Steve Jobs and Steve Wozniak ([Awaranack/flickr](#))

Phreak

intr.v.

phreaked, phreak-ing, phreaks

To manipulate a telephone system illicitly to allow one to make calls without paying for them.

[JOIN THE DISCUSSION](#) [6]

ETYMOLOGY:

Alteration of **freak**1 (influenced by **phone**)

You can't always trust the dictionary.

- 1) "Phreak" is a noun, as well as a verb – i.e. it was the "phreaks" who "phreaked" the phone system, mainly in the 1950's, 60's and 70's when the network was a lot easier to manipulate.
- 2) Phreaking wasn't always manipulative, nor illicit. The first phreaks were geeks, happy to sit and thrill at the skeletal rattles and owly drones that ushered phone calls through the network. The best phreaks could tell you the purpose of each noise, using words like "supervision," "panel pulsing" and "m-f-ing" (that is, "multi-frequencing," not the other thing).
- 3) And, yes, they made lots and lots of free (read: illegal) long distance calls. But, in my mind, they're to be forgiven – because how they did it was really, really cool.

The story of phreaking is a love story about machines. It starts in 1959 when an 8-year-old boy in Virginia taught himself to whistle the frequencies that Ma Bell used to send calls back and forth. (He had perfect pitch, he was a genius and, yes, we're working on a story about him at Radiolab.) He was the first and maybe only whistler, but he wasn't alone. All over the country, telephonophiles were slowly figuring out how the phone system worked. They pored over manuals with names like *Signaling Systems for Control of Telephone Switching*. They built little machines called "blue boxes" (or MF'ers) that played the same tones The Whistler could whistle. Hold the "blue box" up to the mouthpiece on your phone, play the right sequence of notes and, voila, you're calling a payphone in England. Why would you want to call a payphone in England? Because it's in England. Maybe a stranger with a British accent will answer and talk to you for a few minutes. And even if no one picks

SUPPORT
ON THE MEDIA

[Click here to e-pledge](#)

Conservative Bloggers Vindicated, Advice for Leakers, and More
An 11-year-old and his 3D printer
Who's gonna pay for this stuff?
A Journalistic Civil War Odyssey
A New Incentive for Cord Cutters
A Source for Sources
Web Only Audio Extra - TV Cord Cutters
Angelina Jolie's Secret Test Results
With IRS Scandal, Conservative Bloggers Feel Vindicated
Brooke Gladstone + Cyndi Lauper

FEEDS

[On The Media : Latest Episodes](#) (Atom)
[On The Media : Latest Stories](#) (Atom)
[On the Media Feed](#) (Atom)
[hack week Feed](#) (Atom)
[On The Media Podcast](#)

up, you can listen to the exotic “bloop bloop” of a British telephone ringing. Phreaks had favorite rings. They had favorite “The number you have reached is not in service” recordings. Their Barbara Streisand was Jane Barbe, the woman who told you what time it would be at the sound of the tone. They knew her name.

The phreaks found out about each other because the phone company did. In short, Ma Bell traced an illegally placed call back to the University of South Florida, where The Whistler was a student. A kid who can whistle free calls is a news story. And the national press corps wasted no time writing about him. Soon his fellow phreaks started calling him, and calling each other. Soon, phreaks began dialing internal test lines and chatting with each other, one-on-one or in groups. They had conference calls before there were conference calls. They climbed into the phone system and hung out there together like kids in a hollowed out juniper bush. It was their home. And if you’re that obsessed with something like the phone system, chances are you don’t really feel at home anywhere else.

Of course, some phreaks were only in it for the free calls. Some weren’t romantic at all. But they were missing out. The old phone system was gigantically bizarre. The sounds it made depended on where you called from and to. When it broke down, it might play you a disco-ish composition of a busy signal, two clicks and something akin to third-grade-music-class rhythm sticks. Or it might play a continuous ring with no pause in between – as though, while placing a call, you became trapped between one moment and the next. As you may have guessed, these sounds, and the phreaks’ deconstruction of them, have won *me* over a little too. This was an accidental city of sound. And it’s gone. The phone system has evolved, become more efficient (pause for laughter). A blue box is useless now except as a neat antique. The Whistler is dead. Some youngsters will tell you that phreaking lives on, that they still hack the network like their fore-phreakers did. But it isn’t the same. The machines of now seem cold somehow – overly on task. Machines develop a soul in obsolescence. When they’re gone, they ring truer as friends. It happens with everything, over and over.

Phreaking Resources:

<http://www.historyofphonephreaking.org/> -- Phil Lapsley’s excellent compendium of phreaking knowledge. He’s also working on a book about phreaks.

<http://www.wideweb.com/phonetrips/> -- An invaluable audio museum of vintage phone sounds. It’s pretty daunting. If you’re not sure where to start, scroll down to the 6-part homemade documentary “How Evan Doorbell Became a Phone Phreak.” It’s eminently digestible. (Not to mention phreaking great!)

Sean Cole is a producer for Radiolab, and a super great guy for writing this article for us.

TAGS: [hack week](#)

MORE IN: [On the Media](#) »



SEAN COLE, PRODUCER, RADIOLAB

Sean Cole came to Radiolab from the American Public Media program Marketplace where he reported on everything from the rental market in Dubai to a new type of hand gel laced with nicotine. He’s done stories for lots of different public radio programs including All Things Considered, Only a Game, Studio 360 and This American Life where he’s also worked on staff. Sean got his start at the Boston NPR-affiliate WBUR as a newsroom intern. He spent nine years there, ending up as a reporter and producer for the award-winning documentary series Inside Out. He writes poems, some of which have been published. And, yes, he wrote this bio.

Comments [6]

[Leave a comment](#)  [RSS Feed for Comments](#)

Bill from cyberspace

In the late 70's I was given a short cheat sheet from a friend at my junior college in Northern California. All you had to do was go to a payphone. Look up in the yellow pages the number for a business-ANY BUSINESS. The calling cards used the following code (not complete, can't remember...sorry).

Get a piece of paper. You write down the entire number including area code-the first three numbers. The "Cheat Sheet" had two lists. The first list showed all area codes x-referenced to a new series of 3 digit numbers. So, the first thing you do is find the new 3-digit number instead of the actual area code. Next, you needed to look up the "check digit" (it was something like the 7th number in the business's phone number), and then look up that same number on the second x-referenced list. Once you had the "new" area code, and the "new" check digit code, you then created a new calling card number that NEVER FAILED. You pick up the pay phone handset, dial a long distance number, and the operator would come on the line and say \$1.35 please, and you reply with "Calling card please". The operator replied "Your calling card number?" Then you reply with the new area code, part of the number, then the uncoded "check digit number" and then the rest of the new calling card number. It WAS EASY and it ALWAYS WORKED. This was just a few short years after Ramparts published their June 1972 Magazine about Blue Boxes, but I found this method FAR BETTER and it required no hardware. Just the list, a pencil, and 20 seconds to create a new calling card number. I lost the information years ago. Does anyone know how to do this? I was a hero for a long time with this data, and I have never found it referenced on the internet or in any magazine. I was told it came from Ramparts, but I never found it in the issues I researched. CALLING THIS WAY WAS WAY COOL, and you just tell your friends that if they EVER get a call from me where I start by saying "NO NAMES", then the call always worked, and there was no way to get caught. And MA BELL NEVER approached the recipients of these calls because they didn't make the calls, they just received them. I'm a fool for losing the paper and I TRULY WISH I COULD FIND THIS INFO. For research purposes only of course.

Apr. 15 2013 08:47 PM



phreaklab from phreaklab.com

Phreaking will never die!

Feb. 05 2013 03:16 PM



Adam from Canada

Some of the old rotary payphones are still around in various places like old coffee shops and restaurants in Canada. One is a bell south original rotary but upgraded to the number pad. It is located in Bonavista, Newfoundland. I would unscrew the microphone cover to cross the microphone wire over which will trip the coin mechanism that enable the microphone. How this pay phone worked you would dial the number and then drop in your money. The phone at the time was still set for 10 cents. Also you could drill a hole through a quarter and put a piece of string through the whole to drop the coin in and then pull it out after your call was placed. New phones today will be hard but I've notice sometimes the new payphone booths have a backing that can come apart easily to expose the phone wire. I've seen some people go around with old electric phones tapping into the telephone wire just to skip paying 50 cents for a phone call.

Oct. 09 2011 06:34 AM



David from Atlanta, Georgia

Steve Jobs death yesterday triggered thoughts in my mind of how he and others pioneered phone phreaking. Although not a true phone phreaker myself, I was heavily interested in Ma Bell's system and had several "illegal" Western Electric telephones in my collection back in the late 60's and onward till one day it was no longer illegal to own your own telephone. I designed and built my own wireless phone back in the early 70's while in college in Orlando, Florida using parts from broken phones and a couple of FM radio transmitter kits from Radio Shack along with two FM radio receivers. Those were the days, my friend, we thought they'd never end. BTW, I started two telephone related websites back in the late 90's (but since turned them over to two other webmasters): www.bellsystemmemorial.com and www.telephonetribute.com.

Oct. 06 2011 07:48 AM



ghostwriter from Tampa FL

I had a friend who had a little plastic device that could make phone calls. I remember him coming around every week or so, and I would call home (from Florida to Pennsylvania) using that thing. Pretty cool.

Sep. 29 2011 01:19 PM



Beaters from Phoenix AZ

I remember phone phreaking, though I was a casual phreaker, hardly even a hobbyist. In 1972 a friend and I figured out how to record the tones generated from the sound of coins dropping into a pay phone. We used that trick at the dorm to make a few illicit phone calls.

Years later I ran into some hard core phone phreaks at the SubGenius convention (1982 Chicago). I scarfed up copies of their newsletter and read them voraciously. Red boxes, blue boxes, black boxes -- they had gone far beyond my paltry efforts in the intervening years.

Sep. 23 2011 05:07 PM



Leave a Comment

Register for your own account so you can vote on comments, save your favorites, and more. [Learn more.](#)
Please stay on topic, be civil, and be brief.
Email addresses are never displayed, but they are required to confirm your comments. Names are displayed with all comments. We reserve the right to edit any comments posted on this site. Please read the [Comment Guidelines](#) before posting. By leaving a comment, you agree to New York Public Radio's [Privacy Policy](#) and [Terms Of Use](#).



© 2013 WNYC | [TERMS OF USE](#) | [PRIVACY POLICY](#) | [CORRECTIONS](#)

On The Media is funded, in part, by the John D. and Catherine T. MacArthur Foundation, the Overbrook Foundation and the Jane Marcher Foundation.
