#### Oct. 9th

### First Outdoor Call

Oct. 9, 1876

Prev: [June 25] Next: [Jan 25]

Alexander Graham Bell and Thomas A. Watson demonstrated the first two-way phone call using outdoor wires, between Bell's lab on Kilby Street in Boston and Watson at the office of Walworth Manufacturing at 685 Main Street in Cambridgeport, a distance of about two miles.

Newspapers reported that the two men spoke "fluently and readily" for nearly 90 minutes. Indeed *The Advertizer* printed the entire transcript of the conversation.

The following year the Bell Telephone Company was founded and within a decade, 150,000 people in the US owned telephones.

#### Jerome Howard Saltzer

Born: Oct. 9, 1939;

Nampa, Idaho

In the early 1960s, Saltzer designed the first mark-up language, RUNOFF [Nov 6], for MIT's CTSS time-sharing OS [May 3]. He later became one of the team leaders of the Multics project [Nov 30].

In the late 1970s, his Computer Systems Research group was a key player in the development of ring technologies for local area networks.

During the 1980s, he was the technical director of Project Athena which developed the X-Windows system [June 19] and the Kerberos [Feb 9] authentication protocol, both still widely used today. He also found time to implement the first TCP/IP stack [May 5] for the IBM PC [Aug 12].

"Saltzer@mit.edu" was one of the few Project Athena usernames to use a capital letter. Legend has it that multiple hacks were required to support this functionality.

#### Home Banking Oct. 9, 1980

CompuServe [Sept 24] announced a partnership with RadioShack [Feb 2] and the United American Bank of Knoxville in Tennessee to offer its customers online access to their accounts. They could receive information on their checking accounts, use a bookkeeping service, and apply for loans. The bank charged \$5 a month, and was kind enough to have RadioShack TRS-80s [Aug 3] ready to sell to people wanting to participate.

In retrospect, CompuServe chose its banking partner poorly since the firm collapsed on Feb. 14, 1983, the third largest failure in US history at that time.

Another approach was tried in 1981. Four major banks in NYC - Citibank, Chase Manhattan, Chemical Bank, and Manufacturers Hanover - offered home banking via a videotex system. Unfortunately, videotex never really caught on in the US [Oct 30], and so their services were under-subscribed as well.

Chemical Bank tried again in 1983, with its Pronto service. Customers paid \$12 a month for a dial-up service, which allowed them to maintain an electronic checkbook, and make payments to some 17,000 merchants. This approach suffered from the small number of PCs then in homes, and the even smaller proportion of users who owned modems. Pronto was abandoned in 1989.

The first Internet-only bank, Security First Network Bank (SFNB), began operating on [Oct 18] 1995.

#### Wardialing Oct. 9, 1994

The hackers known as "Minor Threat" and "Mucho Maas" released ToneLoc 1.10, a wardialing program for MS-DOS and Windows 95 [Aug 24].

Wardialing is the automatic scanning of a list of telephone numbers, usually every number in a local area code, to find accessible modems, bulletin boards (BBSs), and fax machines.

The name came from the "WarGames" movie [June 3], where at one point the hero runs a program to dial every telephone number in his home town. Prior to that film's release, the technique had been more commonly known as "hammer dialing" or "demon dialing". The latter name derived from the "Demon Dialer" product sold by Zoom Telephonics to repeatedly call a telephone number. Such a tool was necessary back then for accessing busy BBSs, and was also quite useful for winning radio call-in competitions.

"Serial dialing" was eventually outlawed, but hackers got around that minor problem by randomizing the order their software dialed numbers.



Hobo signs, displayed at the National Cryptologic Museum. Photo by Ryan Somma. CC BY 2.0.

A more recent phenomenon is wardriving – the search for wireless networks from a moving vehicle. Warflying (aka warstorming) is wardriving from an airplane. Related activities are: warbiking, warwalking/warjogging, warrailing/wartraining, and wardroning.

Warchalking is the drawing of symbols in public places to advertise an open WiFi network, inspired by the much older hobo symbols.

#### Am I Hot or Not? Oct. 9, 2000

"Am I Hot or Not?" was a site that allowed its users to rate the attractiveness of photos of people on a scale from 1 to 10. James Hong and Jim Young came up with the idea after Young mentioned that a girl they had recently met was a "perfect ten."

The site's popularity boomed, helped by an article in *Wired* magazine, and went on to have a significant influence on the designs of Facebook [Feb 4] and YouTube [Feb 14]. For example, Mark Zuckerberg [May 14] started out by creating a Hot-or-Not type site called FaceMash [Oct 28].

However, "Am I Hot or Not?" wasn't the first rating site; that was probably RateMyFace, registered in the summer of 1999 by Michael Hussey. There was also an AmIHot.com, registered in Jan. 2000 by MIT freshman Daniel Roy.

The popularity of a 1-10 rating for people's looks can probably be traced back to the movie "10" (1979), staring Dudley Moore, Julie Andrews, and Bo Derek (who was rated as an "11" or "12" in the film).

## **Portal** Oct. 9. 2007

The game Portal consists of a series of puzzles that typically have to be solved by having the player's character teleport using an "Aperture Science Handheld Portal Device" (or portal gun)via doorways momentarily created between any two surfaces. If

every puzzle is completed, the player's character receives virtual cake (a Black Forest gateau).

Portal was first released by Valve Corporation [Nov 3] as part of a bundle of five games, called "The Orange Box". The Windows-only download through Valve's Steam service [Sept 12] debuted on this day.

Portal was the successor to a freeware game called "Narbacular Drop" (2005), created by students at the DigiPen Institute of Technology. Robin Walker, one of Valve's developers, noticed the game at DigiPen's annual career fair.

# Ken Thompson Cracked

Oct. 9 2019

In 2014 Leah Neukirchen found an old UNIX password file in a source dump of BSD 3 [March 9], from the late 1970s. It contained the encrypted passwords of many UNIX luminaries, such as Dennis Ritchie [Sept 9], Ken Thompson [Feb 4], Brian Kernighan [Jan 1], Steve Bourne [Jan 7], and Bill Joy [Nov 8].

Although the passwords were encrypted, the encoding relied on the now defunct DES-based "crypt" algorithm [Jan 15]. Also, the software only accepted passwords of at most 8 characters.

Neukirchen decided to crack the passwords as a way of illustrating the importance of using modern, strong, cryptographic techniques. As she expected, most of the passwords were easily broken, but not Ken Thompson's.

Finally on this day, Nigel Williams reported cracking success in a message to the Unix Heritage Society mailing list. The sturdiness of Thompson's chose was highlighted by the fact that Williams' dedicated cracking tool had taken over four days, running on a machine capable of generating 930 million

guesses/sec. Forty years ago, Thompson's password was:

#### p/q2-q4!

It's a famous chess move, the Queen's Pawn Opening, written in the standard descriptive notation, and the beginning of many openings. It means:

p = pawn; / = at; q2 = queen's file, rank 2; - = moves to; q4 = queen's file, rank 4; ! = good move



The Queen's Pawn Opening, chess.com 2019.

It seems quite a natural choice, based on Thompson's background in computer chess [Sept 25].