

## THE TELEPHONE AND THE DEAF

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The telephone, originally inspired by the hope of aiding deaf people, has placed them at an economic disadvantage. Now that the teletype (TTY) has been adapted to transmission via the telephone, deaf persons can enjoy communications at a distance. Unfortunately, the TTY in any of its versions is not inexpensive, costing at a minimum about \$250 to purchase. Upkeep is fairly expensive, and the relatively slow transmission speed results in higher user charges by the telephone companies (Schein and Delk, 1974, pp. 69 and 71).

Since 1964 and even today old Western Union machines hooked up to electronic couplers (Phonotypes) are the chief means by which deaf people can use the telephone. There are several models of teletypewriters, but the old machines are the least expensive. However, these are obsolete, extremely cumbersome and not particularly pleasing to the eye. The April, 1974, issue of the publication of the Typewriters for the Deaf, Inc., states that an agreement had been entered into between the American Telephone and Telegraph Company and TDI whereby AT&T and some of its operating companies will provide surplus equipment to deaf people. Even so, the cost of reconditioning this equipment and adapting for transmission over telephone lines is no small investment.

In 1973, the Phonics Corporation developed a "TV Phone" in which printed letters are flashed on a TV screen and SICO, Inc. came out with a portable TTY, the "Manual Communication Module" communications system by which letters are formed by light-emitting diodes. Both the TV Phone and SICO's MCM have built-in terminal units so that couplers as separate items of equipment are dispensed with.

The 1973-1974 International Telephone Directory of the Deaf contains 3340 entries. *The Deaf Population of the United States* (Schein and Delk, 1974) reports that as of 1972, there were 13,362,842 people with some hearing impairment of which 1,767,046 were deaf. Figures released by American Telephone and Telegraph place the number of telephones at 110,000,000, or

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one telephone for every two persons in the United States. Simple arithmetic shows that there is only one TTY to every 530 deaf persons, or one TTY to every 4000 with a hearing impairment. There are no figures to indicate how many of these people subscribe to telephone service, but from the number of TTY's in service, it would seem that not many deaf people have or use telephones. Until more devices are made available, deaf persons will continue to be penalized by the inaccessibility of telecommunications. A person who is either deaf or for whom amplification equipment is of little or no value cannot pick up the phone and make a purchase at a department store. He or she cannot contact the police in an emergency. In fact, deaf people are deprived of all the services available to hearing people and which they take for granted.

If one were to include among potential TTY users a conservative estimate of four hearing relatives to each deaf individual, then there would be one TTY to every 16,000 persons, and finally, one TTY to every 32,000 telephones in the United States. One can deduce from the above figures that inability to use the telephone on the same basis as the hearing has indeed hampered deaf people to a great extent in their quest for equal status in the social and economic structures of our culture.

Recently the Pacific Telephone Company established a bilingual phone service for Spanish-speaking Californians. The cost of the project was placed at \$500,000 and the company expects this cost to be offset by the increased use of phone service by Spanish-speaking people.

It appears that the time has come for American Telephone and Telegraph Company, through one or more of its regional companies, to explore the feasibility of subsidizing the manufacture of compact communication equipment and distributing it to users in the same manner that the telephone is subscribed for. Deaf persons and their relatives and friends, schools, service agencies, the medical and dental professions, hospitals, business establishments, banks, department and community stores, retail outlets, theaters and restaurants — all will want to be on the receiving end of communication with deaf people. On the educational side, the introduction of the telephone and its usage to young deaf school children may contribute to the rapid development of reading and language skills. Deaf people *themselves* will be able to utilize the service of "hot lines," contact the police and fire departments, take advantage of answering and news services — in fact, opt for practically the whole gamut of services associated with the telephone.

As with the service for Spanish-speaking people, the tremendous increase in the use of phone service by deaf and severely deafened people would more than offset the cost of the equipment.

To the deaf person, the telephone is a constant reminder of his handicap and of his dependence on others for its use. It also stands as an invisible barrier to his vocational advancement, for he has found from sad experience that in employment he is often considered for promotion only to positions

which do not require the use of the telephone. Although the deaf person has learned to "get along" without the aid of the telephone in his everyday living, it still stands as a psychological barrier to the realization of his full potential. It is ironical that the telephone, which was invented by Alexander Graham Bell to aid his hearing-impaired wife is, by itself, entirely useless to the deaf population.

#### REFERENCE

Schein, J.D. and Delk, M.T., Jr. *The Deaf Population of the United States*. National Association of the Deaf, Silver Spring, Maryland, 1974.