

Innovation

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Business Knowledge**



Business Knowledge

HISTORY OF THE TELEPHONE

TODAY, WE TAKE TELEPHONES FOR GRANTED. YOU PROBABLY HAVE A TELEPHONE WITHIN ARM'S REACH AS YOU READ THIS. BUT JUST OVER 100 YEARS AGO, THE IDEA OF INSTANTLY CHATTING TO SOMEONE ANYWHERE IN THE WORLD SEEMED IMPOSSIBLE.

HOW DID SOMEONE FIGURE OUT THE TECHNOLOGY THAT MAKES THE TELEPHONE POSSIBLE? WHERE COULD TELEPHONES TAKE US IN THE FUTURE? TODAY, WE'RE GOING TO EXPLAIN THE HISTORY OF THE TELEPHONE.

1.

EARLY TELEPHONES

YOU MAY ALREADY KNOW THAT ALEXANDER GRAHAM BELL INVENTED THE TELEPHONE IN THE 1880S. BUT BELL DIDN'T INVENT THIS DEVICE OUT OF THIN AIR: EARLY TELEPHONES HAD STARTED BEING DEVELOPED AS EARLY AS THE 1660S.

YES, THESE TELEPHONES WERE INCREDIBLY PRIMITIVE COMPARED TO BELL'S TELEPHONE, BUT THEY STILL DESERVE TO BE MENTIONED.

2.

MECHANICAL ACOUSTIC DEVICES

EARLY TELEPHONES ARE MORE ACCURATELY CALLED "MECHANICAL ACOUSTIC DEVICES". INSTEAD OF TRANSFORMING AUDIO ENERGY INTO ELECTRICAL ENERGY, THESE DEVICES SIMPLY TRANSMITTED VOICE DATA MECHANICALLY LIKE THROUGH PIPES AND OTHER MEDIA.

USING THESE BASIC DEVICES, USERS COULD TRANSMIT SPEECH AND MUSIC OVER DISTANCES GREATER THAN YOU WOULD BE ABLE TO TRANSMIT IF YOU WERE SPEAKING (OR YELLING).

3.

**ANTONIO MEUCCI: IN 1854, HE
CONSTRUCTED TELEPHONE-LIKE
DEVICES.**

**JOHANN PHILIPP REIS: IN 1860,
REIS CONSTRUCTED "REIS"
TELEPHONES, BUT STOPPED JUST
SHORT OF MAKING THESE
TELEPHONES PRACTICAL,
WORKING DEVICES.**

**ELISHA GRAY: IN 1876, GRAY USED A
WATER MICROPHONE TO CREATE A
TELEPHONE IN HIGHLAND PARK, ILLINOIS.
GRAY AND BELL DEVELOPED THEIR
INVENTIONS SIMULTANEOUSLY AND
INDEPENDENTLY, WHICH IS WHY THESE
TWO WOULD FIGHT A VICIOUS LEGAL
BATTLE OVER WHO ACTUALLY INVENTED
THE TELEPHONE (SEE BELOW).**

5.

**THE SIX INVENTORS TYPICALLY CREDITED WITH
INVENTED SOME TYPE OF ELECTRICAL
TELEPHONY DEVICE INCLUDE:**

**ALEXANDER GRAHAM BELL: BELL
RECEIVED THE FIRST US PATENT FOR THE
INVENTION OF THE TELEPHONE IN 1876.**

**BELL USED HIS OWN MUSICAL OR
HARMONY APPROACH AS A PRACTICAL
SOLUTION TO THE TELEGRAPH'S
PROBLEMS BELL'S HARMONIC
TELEGRAPH WAS BASED ON THE IDEA
THAT SEVERAL NOTES COULD BE SENT
ALONG THE WAY SIMULTANEOUSLY AS
LONG AS THE NOTES OR SIGNALS HAD
DIFFERENT PITCHES.**

**THOMAS EDISON: EDISON IS CREDITED
WITH INVENTING THE CARBON
MICROPHONE, WHICH "PRODUCED A
STRONG TELEPHONE SIGNAL."**

4.

**TIVADAR PUSKAS: THIS HUNGARIAN
INVENTED THE TELEPHONE
SWITCHBOARD EXCHANGE IN 1876.**

**OUT OF ALL THE INVENTORS LISTED
ABOVE, THE BIGGEST CONTENTION
IS WHETHER BELL OR GRAY
INVENTED THE TELEPHONE. THESE
TWO WERE THE CLOSEST TO
CREATING WHAT WE KNOW AS
MODERN, WORKING TELEPHONES.**

**THE FIRST TELEPHONE LINE
IS CONSTRUCTED IN 1877**

6.

**BELL SUCCESSFULLY USED HIS
TELEPHONE INVENTION IN 1876. BY
1877, CONSTRUCTION OF THE
FIRST REGULAR TELEPHONE LINE
BETWEEN BOSTON AND
SOMERVILLE, MASSACHUSETTS HAD
BEEN COMPLETED.**

**TELEPHONE LINE CONSTRUCTION
EXPLODED WITH GROWTH OVER THE
NEXT FEW YEARS. BY 1880, THERE
WERE 47,900 TELEPHONES ACROSS
AMERICA. BY 1881, TELEPHONE
SERVICE BETWEEN BOSTON AND
PROVIDENCE HAD BEEN
ESTABLISHED. BY 1892, A TELEPHONE
LINE HAD BEEN CONSTRUCTED
BETWEEN NEW YORK AND CHICAGO.
BY 1894, NEW YORK AND BOSTON
WERE CONNECTED.**

7.

TRANSCONTINENTAL TELEPHONE SERVICE, HOWEVER, REMAINED ELUSIVE IN THE 19TH CENTURY. BUILDING A WIRE ACROSS THE ENTIRE LENGTH OF AMERICA DIDN'T SEEM PRACTICAL GIVEN THE LOW POPULATIONS AND HUGE DISTANCES OUT WEST. THUS, TRANSCONTINENTAL SERVICE WAS NOT ESTABLISHED UNTIL 1915, WHEN IT WAS COMPLETED BY OVERHEAD WIRE.

THE FIRST TELEPHONE SWITCHBOARDS

THE FIRST TELEPHONE SWITCHBOARD WAS CREATED AT THE SAME TIME AS THE FIRST TELEPHONE LINE: 1877 IN BOSTON.

THE FIRST TELEPHONE SWITCHBOARD PATENT, HOWEVER, WAS NOT ESTABLISHED UNTIL JANUARY 17, 1882, WHEN LEROY FIRMAN RECEIVED THE FIRST PATENT FOR A TELEPHONE SWITCHBOARD.

8.

**BY 1971, ERNA SCHNEIDER HOOVER
HAD PATENTED THE FIRST
COMPUTERIZED TELEPHONE
EXCHANGE.**

BELL TELEPHONE COMPANY

**BELL TELEPHONE COMPANY
NAMED AFTER ALEXANDER GRAHAM
BELL WAS ESTABLISHED IN 1878.
TODAY, WE KNOW THAT COMPANY
AS AMERICAN TELEPHONE AND
TELEGRAPH, OR AT&T.**

**ALEXANDER GRAHAM BELL DIDN'T
ACTUALLY FOUND THE COMPANY:
THE COMPANY WAS FOUNDED BY
BELL'**

9.