



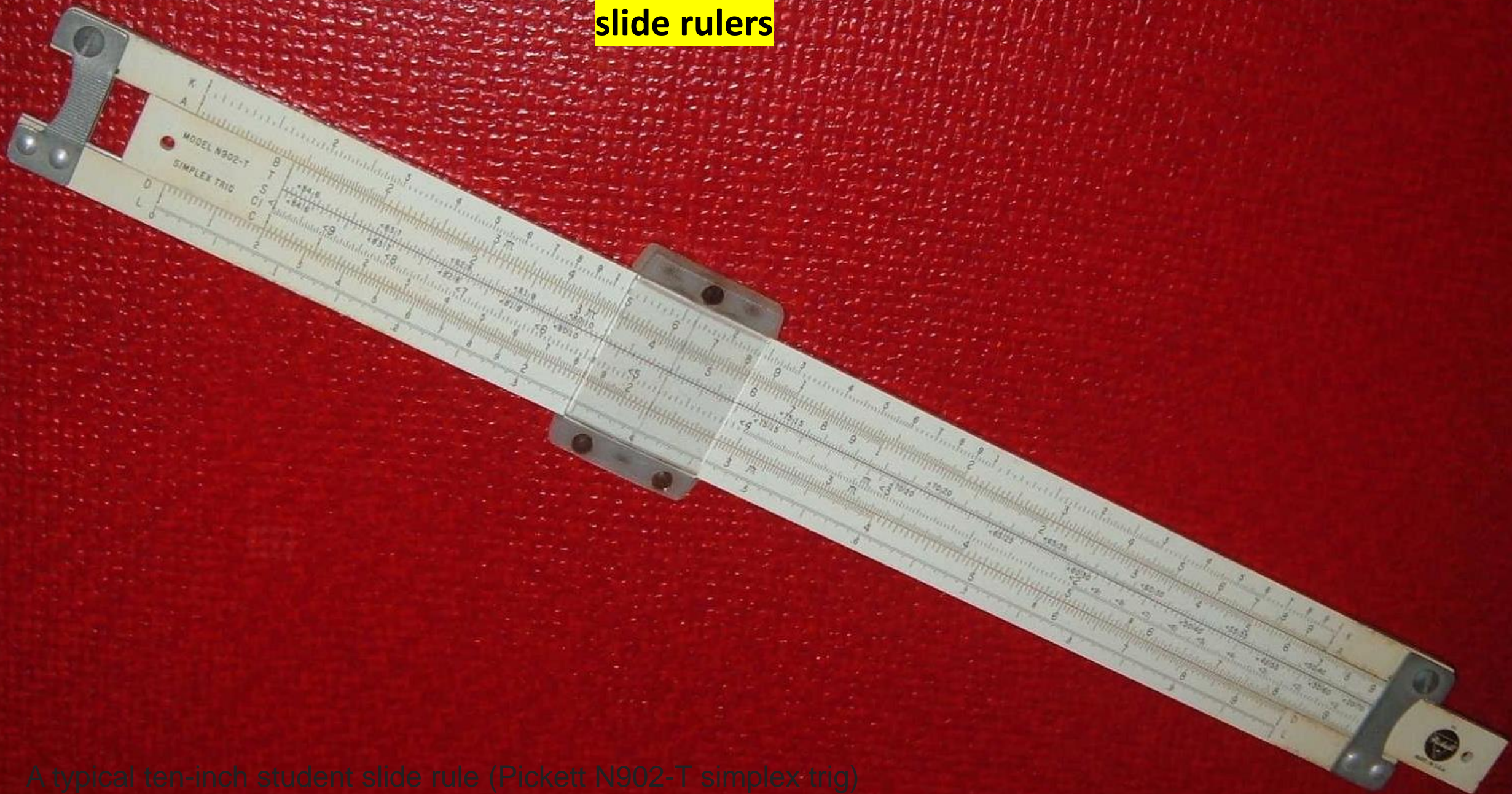
50 Years in 30 Minutes

Evolution of Signal Processing

Dr. Yoav Medan
CTO and Co-founder, Amplio

1965

slide rulers



A typical ten-inch student slide rule (Pickett N902-T simplex trig)

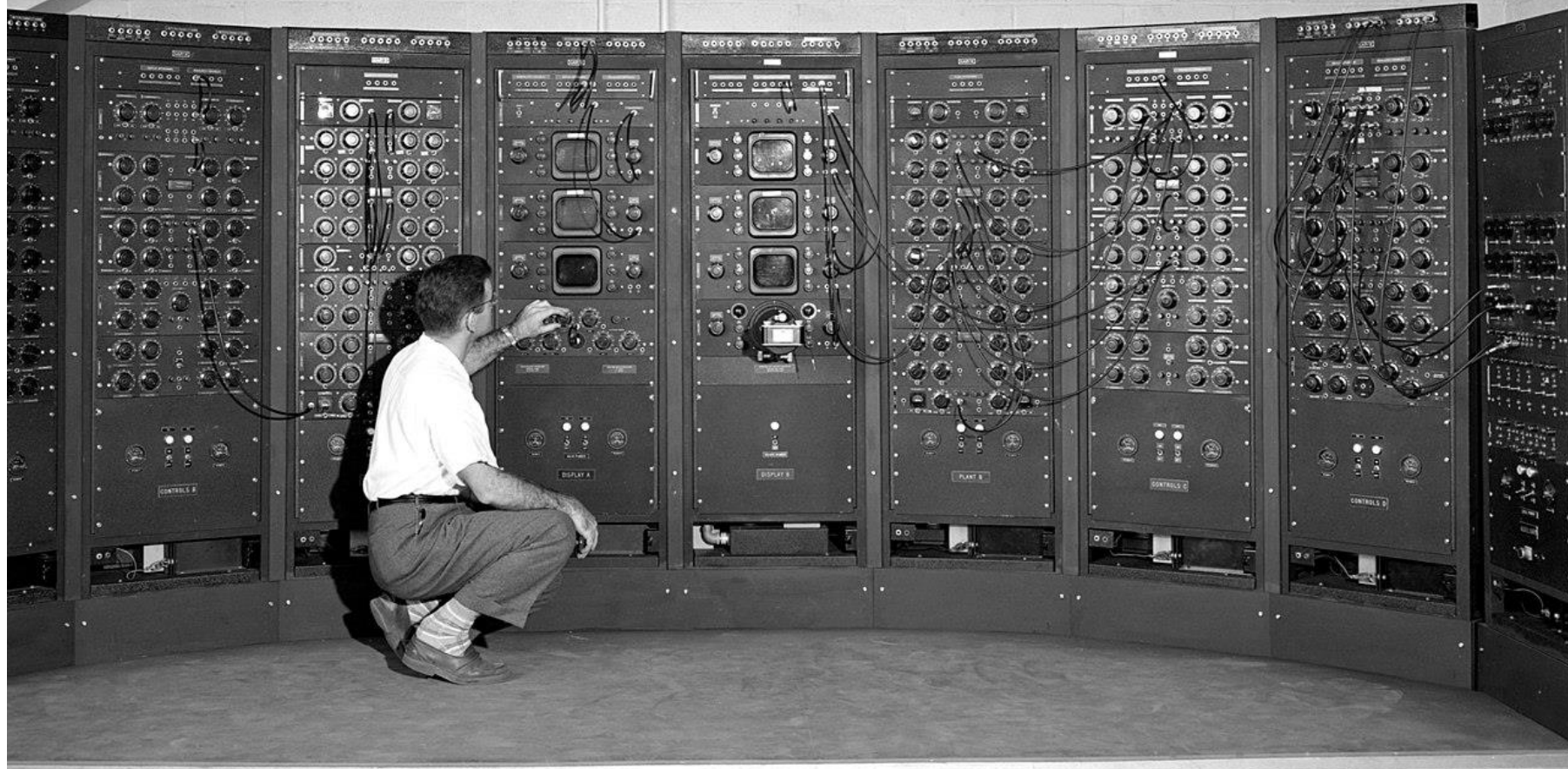
1970

- 1974: First Handheld Programmable Calculator



DEVICE NAME: HP-65
INVENTOR: HEWLETT-PACKARD

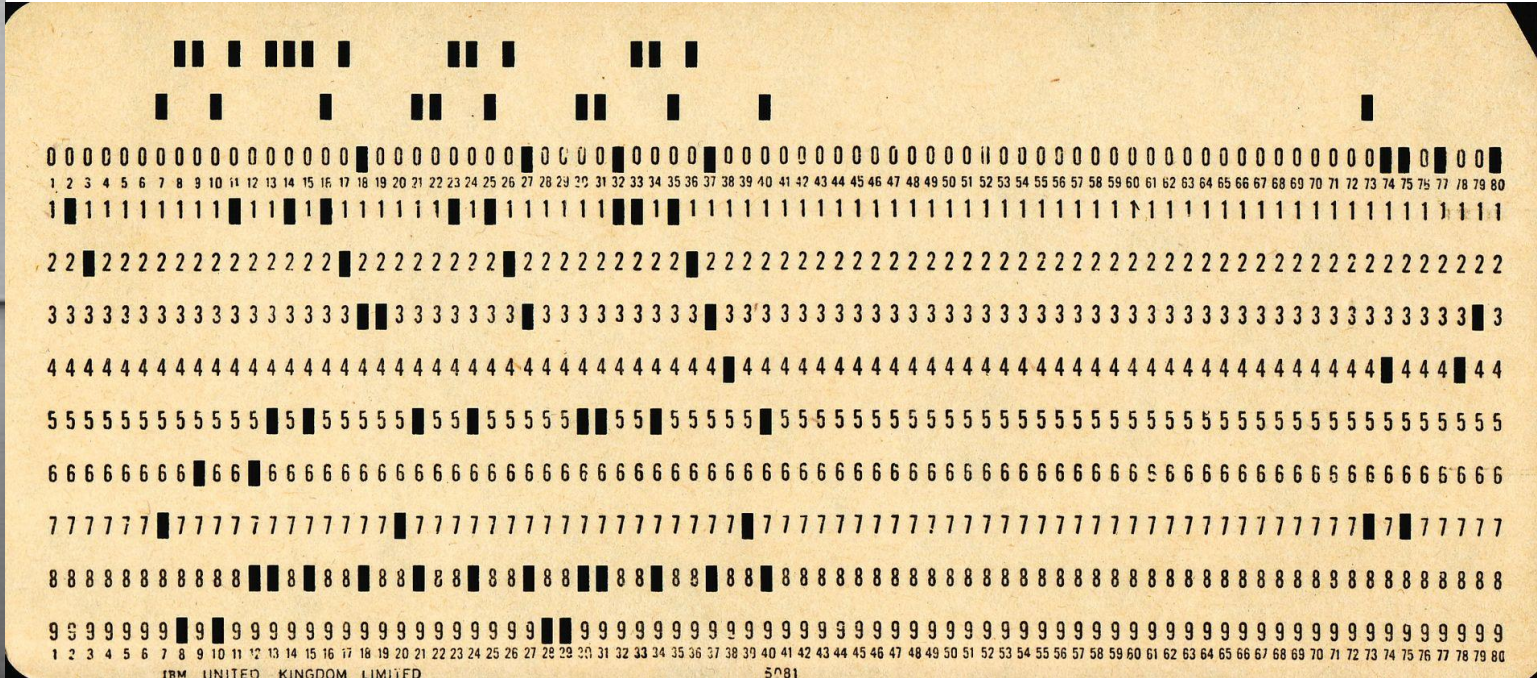
Analog computers



Analog computing machine at the Lewis Flight Propulsion Laboratory circa 1949.

62,500 Punched Cards — containing a mere 5 Megabytes of Code.

punch cards



A 12-row/80-column IBM punched card from the mid-twentieth century

1975



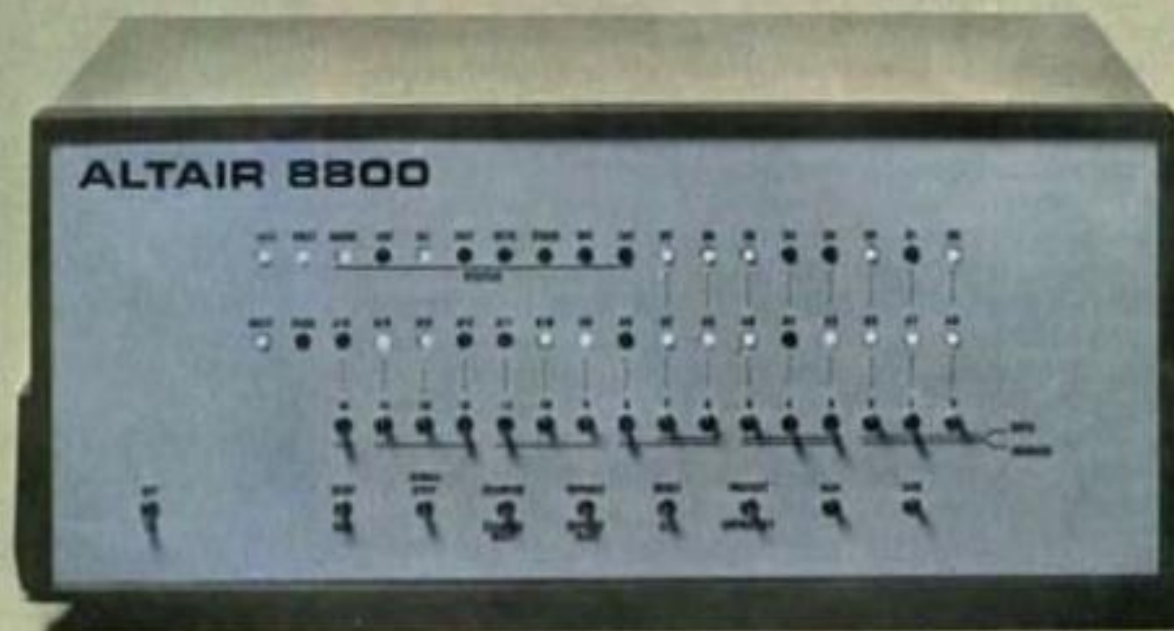
Sperry UNIVAC Uniscope 300 (ca. 1970)

1980

EXCLUSIVE!

ALTAIR 8800

The most powerful minicomputer project ever presented—can be built for under \$400



BY H. EDWARD ROBERTS AND WILLIAM YATES

THE era of the computer in every home—a favorite topic among science-fiction writers—has arrived! It's made possible by the POPULAR ELECTRONICS/MITS Altair 8800, a full-

tral processing unit is a new LSI chip that is many times more powerful than previous IC processors. It can accommodate 256 inputs and 256 outputs, all directly addressable, and has

PROCESSOR DESCRIPTION

Processor: 8 bit parallel
Max. memory: 65,000 words (all directly

CSMP APL

1985

Personal computers



1990

SpeechViewer III

Device ID:



IBM

Type a device ID and click the Continue button. Or, just click the Continue button.



THE OASIS BULLETIN BOARD SYSTEM

DATE: 03/21/18

TIME: 4:47 PM

NO DISK ERRORS

```
TOTAL CALLS: 851  IDLE TIME : 00:00:08
CALLS TODAY: 6    VARIABLES  : 5151
POSTS TODAY: 7    DIM ARRAYS : 4374
DNLDS TODAY: 0    MODEM RESP:
UPLDS TODAY: 0    SYSOP IS  : OUT!
NEW USERS  : 0    BYTES FREE: 5746
MODEM INIT : ateixis0=0s10=30f1q0v1m0
```

Last Caller = STRIKER



1995

1995 - SounBlaster, VoIP, DSPs



1995 - DSPs

DSP 

TMS320
VC5509APGE
4A-46AFKTW

G4

winbond
W981266JH-61
1346P
63197G300ZY

U21

C19

C20

C34

C32

C18

C16

C37

C17

C33

R24

C27

C26

C29

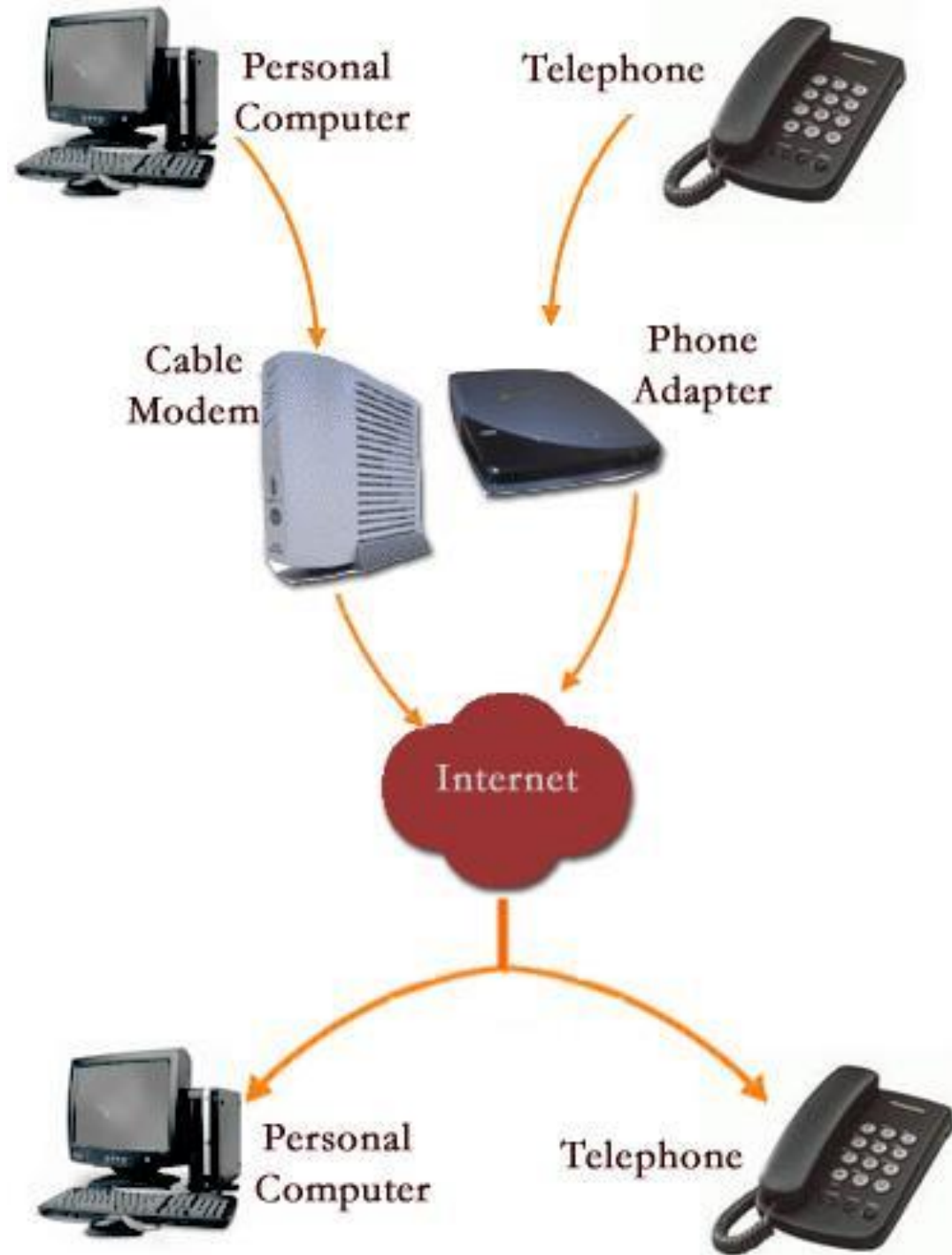
C28

C13

C14

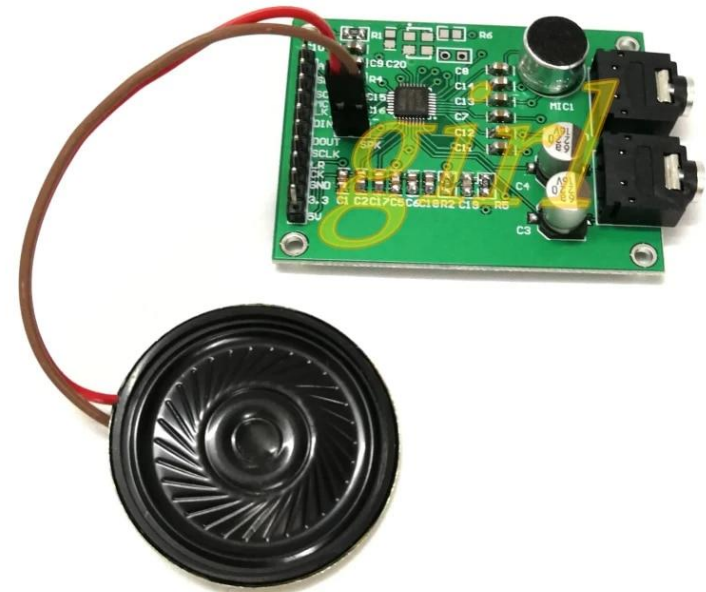
C15

U20



2000





2005



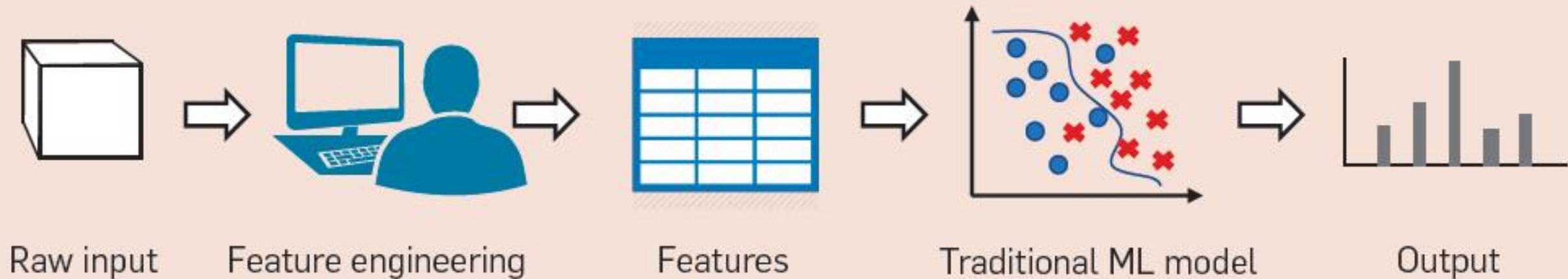
2010

WIRELESS BROADBAND



2015

Traditional machine learning



Deep learning





Use your voice

Voiceitt learns your unique speech patterns for best recognition



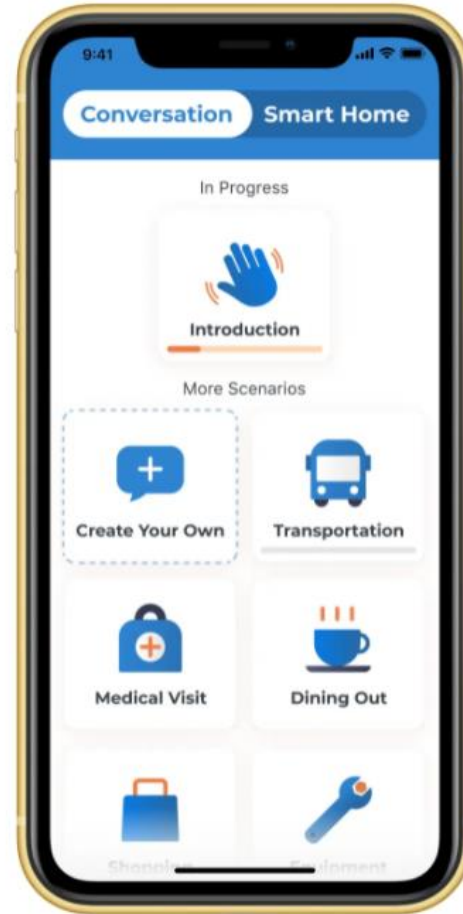
Everyday situations

Create your personalized vocabulary for your daily communication and routines



Shortcut phrases

When you want, you can say part of a phrase and Voiceitt can complete the rest



Any language or accent

Accessibility and inclusion are our top priorities, so our technology recognizes speech-- making Voiceitt language independent.



No bulky boards or equipment

Use your own iPhone or iPad



AmplioSpeech

CALENDAR | TIMESHEET | TREATMENT

Jim Smith Joined September 2019

Student ID: 60185 | Email: jim.smith@yahoo.com | Main Therapist: Linda Bloom
 Gender: Male | Phone: 212.258.214 | Main Therapist Email: lindab@ampliospeech.com
 Date Of Birth: 01-19-2018 | School: Sharpstown

Need More

Student Participation During Session: Student Practice - Homework

Weekly 15 Min

AmplioSpeech

CALENDAR | REPORTS

368 Students Received Therapy

360 Completed Sessions | **182** Individual Sessions Hours | **60** SLPs Provided Therapy

Caseload > Goal Distribution All Schools

75% Speech-Language Intelligibility

Identify Average 15 Min

Treatment Timeline

- 17 June 2020 Therapy Session Therapist: Linda Bloom Duration: 30:00
- 19 June 2020 Self Practice Therapist: Linda Bloom Duration: 15:00
- 20 June 2020 Self Practice Therapist: Linda Bloom Duration: 30:00

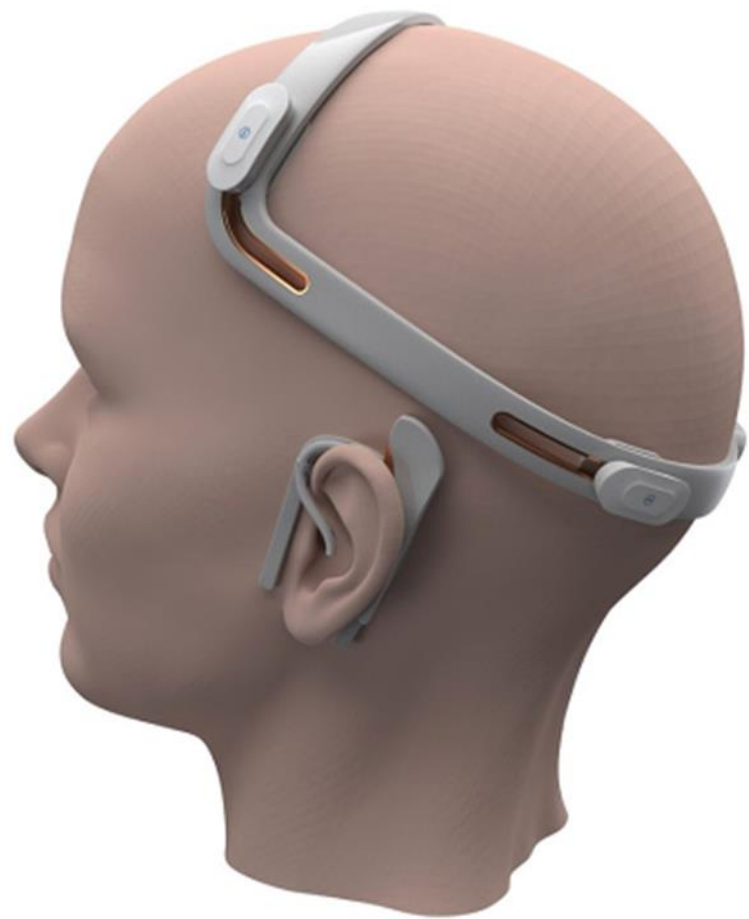
- Schools
- search school
- Phillips Exeter Academy
 - St. Mark's School of Texas
 - Phillips Academy
 - Stuyvesant High School
 - Bergen County Academies
 - Maggie Walker Governor's School
 - BAHS Scottsdale
 - Maggie Walker Governor's School
 - BAHS Scottsdale
 - School of Science & Engineering
 - Liberal Arts & Science Academy
 - School for the Talented & Gifted

| Name | School Ref. ID | Date of Birth | Target Service Time (H) | Completed Sessions | Actual Service Time (H) | Objectives Targeted |
|-----------------|----------------|---------------|-------------------------|--------------------|-------------------------|---------------------|
| Seren Gonzalez | 2256 | 0302200 | 3000 | 12 | 6 | 3 |
| Sahara Marsh | 5099 | 0606200 | 3000 | 10 | 5 | 1 |
| Karler Lester | 2497 | 0208204 | 3000 | 4 | 3 | 2 |
| Dayna Managrian | 4578 | 0304202 | 3000 | 6 | 4 | 1 |
| Mouth Mathews | 4096 | 0402205 | 3000 | 5 | 25 | 3 |

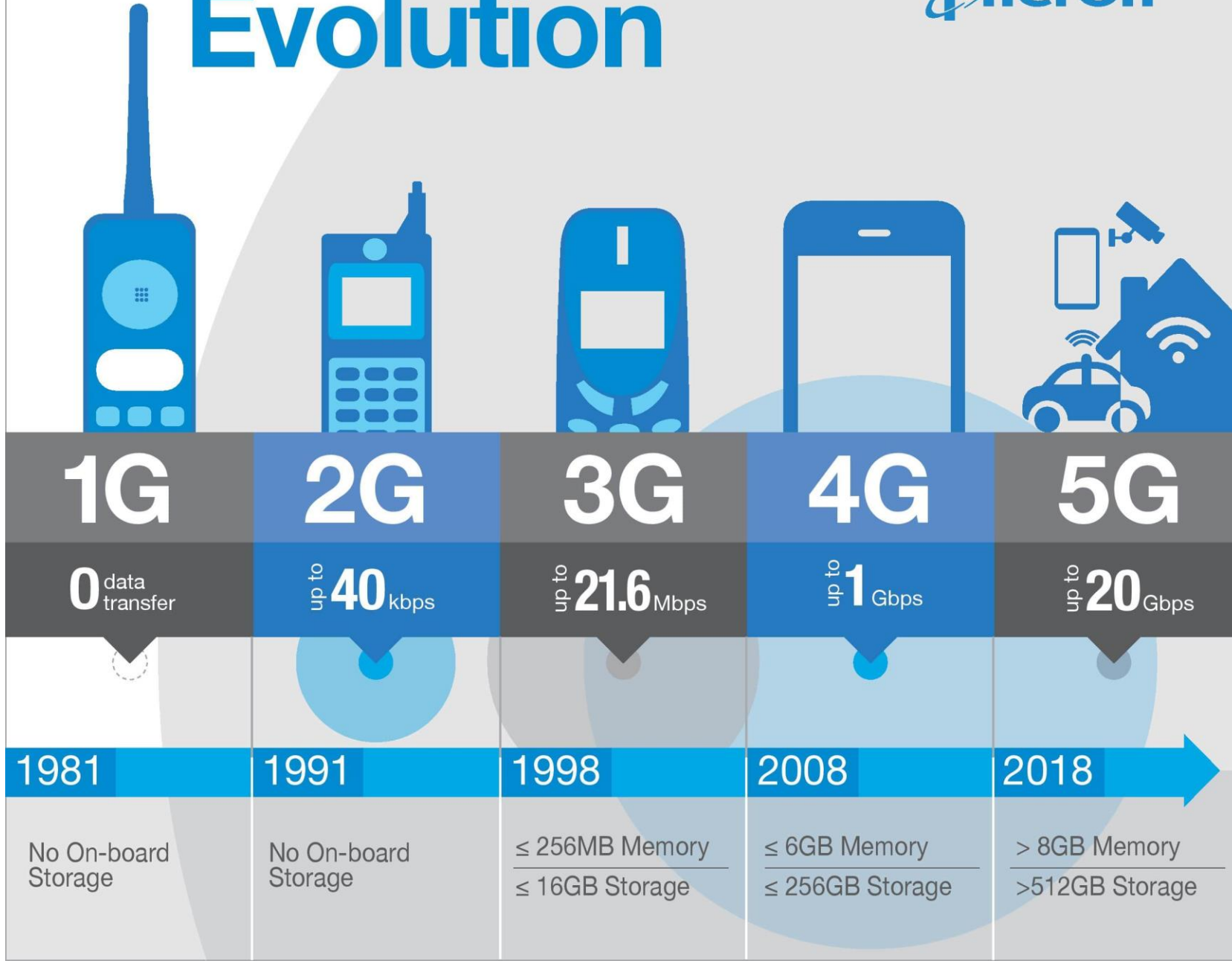


2020





Cellular Network Evolution



2030



Patient info and history



Gender: Male
Age: 45
Phone: 1111111111

History:
Cerebral (15/02/2013)
Brain Scan (10/10/2014)

Temperature: 37.5
Heart Rate: 75
Blood Pressure: 120/80

99 80 85



Weight: 70kg

Patient info

Medical History

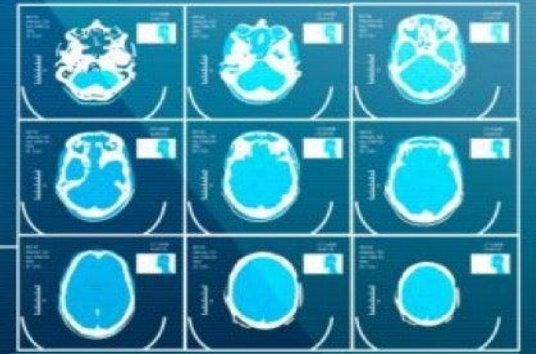
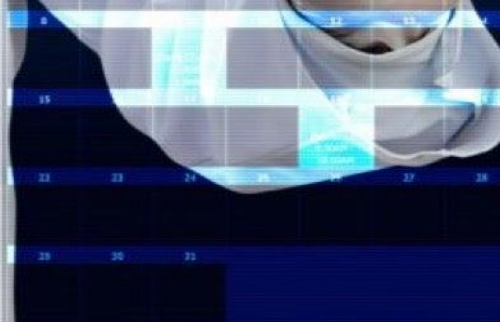
Schedule Record

Admission

Pharmacy

Calendar

Sunday Monday Tuesday Wednesday Thursday Friday Saturday



Terminal scan

