

Imaging Partnership

DIGITAL CREATIONS

What Do We Mean By 'Digital Media'

LESSON ONE

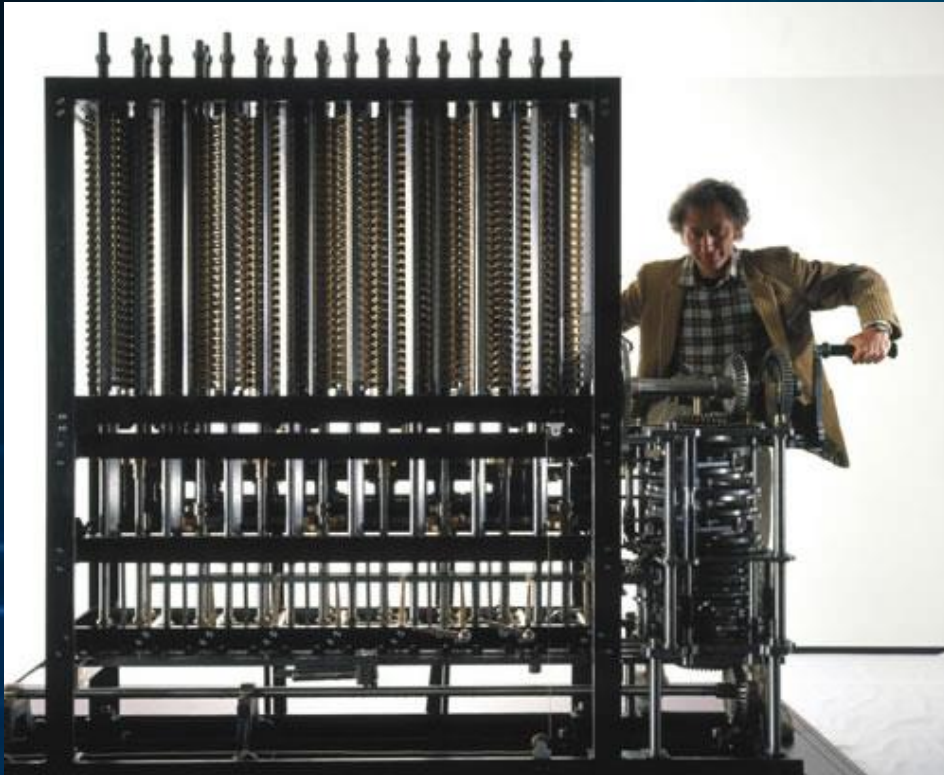
What you will learn:

- What is meant by 'digital media'
- What is meant by the 'binary code'
- Some of the effects on society of digital media

What you should be able to do:

- Demonstrate ability to recognise similarities and differences between printed and digital media
- Demonstrate ability to convert numbers into binary code
- Take part in discussion about the effects of digital media on society
- Take part in discussion about the ease of publishing information on the internet

History of Digital Media



- Charles Babbage 'Difference Engine' from the early 1800's is regarded as the first computer.
- Another example from that time was the jacquard weaving loom.
- The first digital media came into use in the 1950's, following the development of binary code.

What is Digital Media - Activity



- Digital media is any material that can be written to and read by machines.
- Contrast this with printed media – pupils are to create lists of both types

Digital vs Printed Media

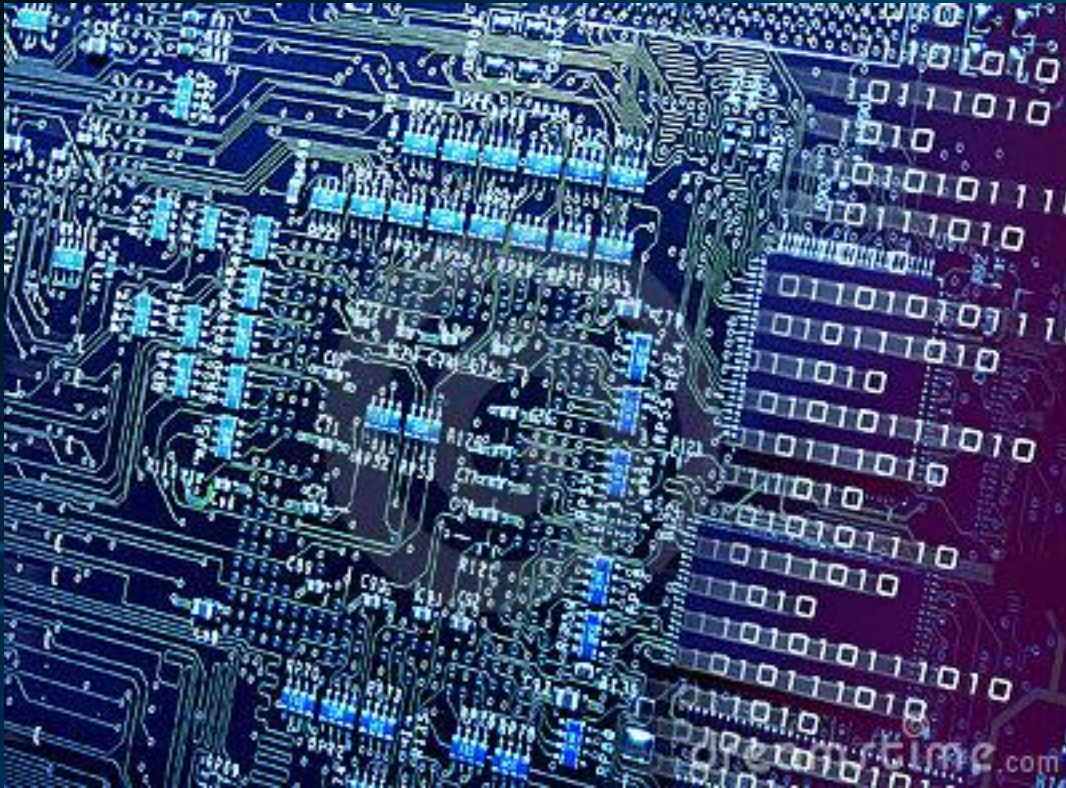
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Binary Code



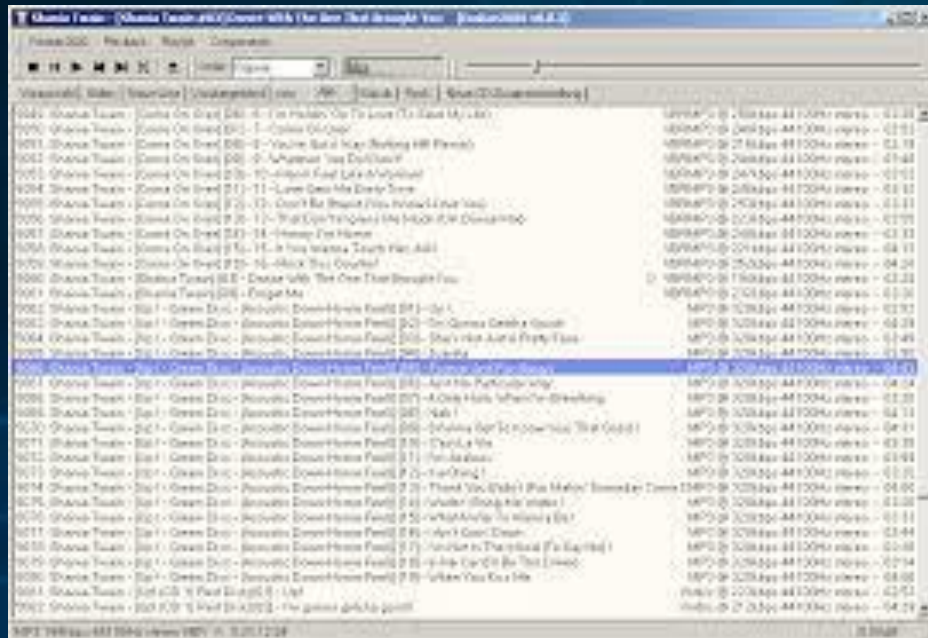
- Computers use binary - the digits 0 and 1 - to store data.
- A binary digit, or bit, is the smallest unit of data in computing. It is represented by a 0 or a 1.
- Binary numbers are made up of binary digits (bits), eg the binary number **1001**.

Binary Code



- The circuits in a computer's processor are made up of billions of transistors
- A transistor is a tiny switch that is activated by the electronic signals it receives.
- The digits 1 and 0 used in binary reflect the on and off switches in a transistor.

Binary Code



- Computer programs are sets of instructions.
- Each instruction is translated into simple binary codes that activate the processor.
- All software, music and documents, are also stored using binary.

How Binary Code Works - Letters

Denary	Binary	Letter
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F
20		
28		
36		

Activity

There are 10
kinds of people
in the world:
those who
understand
binary code, and
those who don't.

- Give pupils the task of converting numerals and letters into binary code
- Work could be differentiated by asking pupils to convert in different directions
- Ask pupils to write their name in binary code (leaving a space between each set

Digital Revolution And issues



- Discuss the effects on society: proliferation of tablets and smartphones, paperless society, copyright, loss of analogue systems, job losses in printing industries and press, growth of digital journalism, self publishing, social media, individual as content creator, cyber bullying

Individual as content creator



- Access to free software/apps and low cost hardware means that more people than ever can publish their own material over the internet. Is this a good thing? Discuss.

So what have we learned?

- What is meant by 'digital media'
- What is meant by the 'binary code'
- Some of the effects on society of digital media