

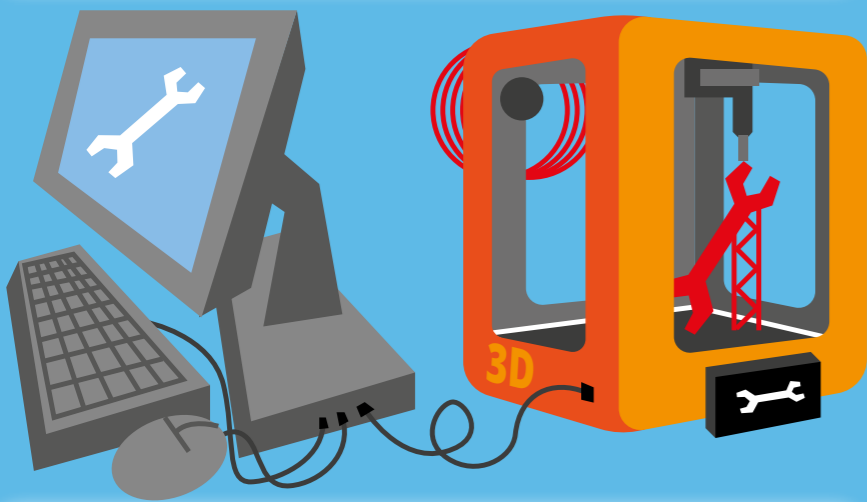
## Technological Influence

### Information and Communications Technology (ICT)

**Definition:** The computing and communications systems that a business might use to exchange information with stakeholders.

### How can ICT be used in a business?

- **Communication** → through emails / texts / word processing → ordering
- **Marketing** → websites / "spam"
- **Stock control / customer details** → databases → tills → barcodes
- **Record keeping** → and analysis / spreadsheets → finance → online banking
- **Selling** → online auction sites
- **Research** → using the internet



### 3D Printing

**Definition:** Products and components can be produced using 3D printers working from computer-drawn designs.



### Computer-Aided Design (CAD)

**Definition:** Allows designers to produce new products using 3D models displayed on computer screens.

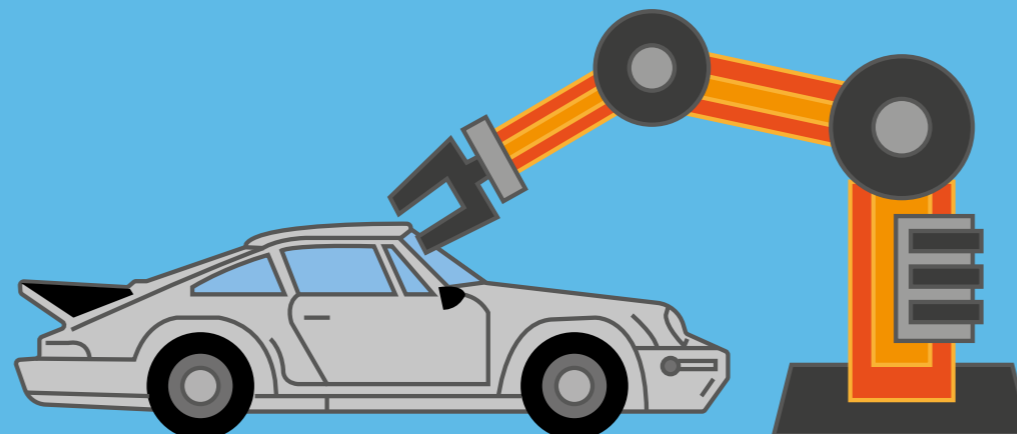
#### Advantages:

Reduce costs and improve quality are the main benefits, there are a number of different examples:

- ✓ **Speeds up design** → simple to edit
- ✓ **Alternative designs can be considered** → simple to edit
- ✓ **Producing drawings of finished goods and parts / no need to build models (prototypes) nor finished goods** → reduce costs
- ✓ **To view finished goods before manufacture to find best design** → improves quality and accuracy of the design
- ✓ **Testing** → materials and design to reduce errors and reduce costs
- ✓ **Linked to CAM to speed up production**

#### Disadvantages:

- ✗ **Cost of setting up** → machinery → training of workers



### Computer-Aided Manufacturing (CAM)

**Definition:** Uses computers to operate robots and other machines in production lines.

#### Advantages:

- ✓ **Can be linked with CAD** → speeds up the whole production process
- ✓ **Measurements easily transferred to manufacturing process**
- ✓ **Less scope for error in production** → more accurate → allows for standardised quality → greater customer satisfaction → fewer returns
- ✓ **Used in mass production/flow production** → easy to adjust → speed → cheaper
- ✓ **Fewer workers** → lower wage costs → less supervision

#### Disadvantages:

- ✗ **Cost of setting up** → machinery → training of workers → possible redundancy payments to unskilled workers
- ✗ **Reputation of business if making redundancies**

### Why would workers be concerned by the introduction of new technology?

- **May lose jobs** → technology may replace need for workers / changes require fewer workers
- **Promotion opportunities may be reduced** → with smaller workforce
- **Lower morale** → lack of job security / promotion opportunities
- **Fewer hours** → reduced pay
- **Need to familiarise with technology** → need to be trained → may need to work harder
- **Health risks** → technology could be dangerous
- **New skills may be gained** → which may lead to higher pay → greater opportunities

# GCSE Business Business Operations

## Impact of technology on customers

- **Better service** → as more work done by machines
- **Lower prices** → as lower total wage bill
- **Inferior service** → because of lower morale of workers
- **Higher prices** → to pay cost of machines
- **No effect** → as customers do not appreciate differences in service

## Apps (Applications)

**Definition:** Pieces of software designed for a specific purpose and for use on smartphones and tablets.

## Social Media

**Definition:** Involves websites and applications which allow users to create and share information, ideas and interests with other individuals, communities and networks.

## Video Conferencing

**Definition:** The use of computers to provide a video link between two or more people.



## Web Chat

**Definition:** Simple means of communicating in real time using only web browsers such as Firefox or Internet Explorer.

## E-Commerce

**Definition:** Involves the buying and selling of goods and services via the internet.



## Purchasing materials using e-commerce [buying on the internet]

### Advantages:

- ✓ **Can see images of products** → can compare many products
- ✓ **Prices of many sellers can be compared** → on one computer
- ✓ **No need to travel to suppliers** → so costs saved
- ✓ **Can pay online** → may save bank charges
- ✓ **May be cheaper** → because seller costs lower
- ✓ **Wider choice** → from many sellers
- ✓ **Order 24/7** → more convenient for business owners

### Disadvantages:

- ✗ **Goods not inspected** → to see if goods meet the need
- ✗ **Images may be misleading** → so quality difficult to judge
- ✗ **Delays** → in receiving goods → if goods need to be returned
- ✗ **Possibility of fraud** → if goods not sent → when paying
- ✗ **Technical issues** → e.g. reliability, speed
- ✗ **Convenience/easier** → than possibly having to drive miles to purchase the item

## M-Commerce

**Definition:** Mobile commerce involves buying goods and services through handheld mobile devices such as smartphones.

## Benefits of creating customer records using a database

- **More effective data handling** → sort and search for customer records quickly → inputting the data
- **It is easy to make changes** → save your work and print it out again
- **Can create reports** → print out records and store hard copies
- **Can create mail merge** → speed up sending correspondence via letters
- **Marketing** → creating customer profile and loyalty scheme



## Why would customers be concerned by the introduction of new technology?

### The customers:

- **Delays in service** → consequences of this
- **Better service** → as more work done by machines
- **Lower prices** → as lower total wage bill for the business
- **Inferior service** → because of lower morale of workers
- **Higher prices** → to pay cost of machines
- **No effect** → as customers do not appreciate differences in service