

A

Innovation and invention

Verb	Noun: concept (uncountable)	Noun: thing (countable)	Noun: person
design – to make plans or drawings for how something is to be made	design	a design	a designer
develop – to make a new idea become successful, for example by making or improving a product	development	a development	a developer
innovate – to think of new ideas, methods, products, etc.	innovation	an innovation	an innovator
invent – to design and make something for the first time	invention	an invention	an inventor

B

Research and technology

Google carries out **research and development (R&D)** at its **research centre** in Mountain View, California. Its **laboratories** are some of the most **innovative** in the computer industry.

Note

BrE: **research centre**
AmE: **research center**

Google has made many new **breakthroughs** – innovations. Users can try out these products before they are **released** in their final version.

The company is a leader in the **technology** of internet search. They are at the **cutting edge** or **leading edge** of this technology – none of their competitors has better products than them. Everything they do is **state-of-the-art** – using the most advanced techniques available.

Of course, the **hi-tech** products of today become the **low-tech** products of tomorrow. Products that are no longer up-to-date because they use old technology are **obsolete**. Like all companies, Google never wants to get into that situation: they want to develop technology that is **future-proof**.

Note

Cutting edge is used about three times as much as **leading edge**. Both are often used as adjectives, e.g. **cutting-edge products**, **leading-edge technology**.



C

Patents and intellectual property

Information or knowledge that belongs to an individual or company is **proprietary**. A product developed using such information may be protected in law by **patents** so that others cannot copy its design.

Other companies may pay to use a design **under licence** in their own products. These payments may be referred to as **royalties**.

Note

	<i>Noun</i>	<i>Verb</i>
BrE:	a licence	to license
AmE:	a license	to license

In publishing, if a text, picture, etc. is **copyright**, it cannot be used by others without permission: this is **copyright infringement**. An example of this is **illegal downloading** of music, films and software from the internet: this is **piracy**.

Another form of piracy is when **fake** products, often luxury products such as Rolex or Chanel, are sold without the permission of the company that owns the **brand name** (see Unit 22) or **trademark** – a recognizable symbol used on the product.

The area of law relating to patents, copyright and trademarks is **intellectual property**.

Exercises

15.1 Complete this webpage using these expressions from A and B opposite.

cutting edge release	develop state-of-the-art	developed technologies	development technology	innovation
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NEWS ONLINE

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Imagine being able to work on products across all business groups of Microsoft. You can do it here at the Microsoft India Development Center in Hyderabad, a center for true (1) ! MSIDC is located in a 50-acre (2) campus. It is Microsoft's largest product (3) center outside the headquarters in Redmond, and is recognized as an industry leader with teams working at the (4) , developing (5) and products for millions of Microsoft customers worldwide. MSIDC has (6) many core products and technologies for the global market since its inception in 1998. Our teams have end-to-end responsibility for every product or (7) they (8) They own the strategy, gather customer requirements from across the world, plan different versions, and then design, test and (9) the product for the market.

Comment Like

15.2 Match the expressions (1–10) containing words in C opposite with their meanings (a–j).

- | | | |
|---------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1 copyright infringement | <input type="checkbox"/> | a a payment made to the owner of a design by someone else who uses it, or to an author by a publisher |
| 2 intellectual property | <input type="checkbox"/> | b an arrangement between the owner of a design and another organization, allowing its use in exchange for payment |
| 3 patent application | <input type="checkbox"/> | c a name or symbol used on a product |
| 4 proprietary information | <input type="checkbox"/> | d an occasion when an inventor asks the authorities to officially recognize an invention as their property |
| 5 royalty payment | <input type="checkbox"/> | e designs, ideas, etc. that belong to someone |
| 6 licensing agreement | <input type="checkbox"/> | f a name used on a product |
| 7 illegal download | <input type="checkbox"/> | g the whole activity of using designs, text, pictures or copying products without permission |
| 8 piracy | <input type="checkbox"/> | h an occasion when someone makes an illegal copy of music, etc. from an internet site |
| 9 trademark | <input type="checkbox"/> | i the law relating to designs, ideas, etc. that belong to someone |
| 10 brand name | <input type="checkbox"/> | j an occasion when someone uses another's text, pictures, etc. without permission |

Over to you

- Name a product that has become obsolete and suggest why that happened.
- How do companies try to prevent illegal downloading of music and films? Will they ever succeed completely?