

Unit 4

Modular Design

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Modular Design

UNIT-IV	[12]
Modular design Design optimization; Design as a marketing tool; Intellectual Property rights – Trade secret; patent; copy-right; trademarks.	

Modular Design

- ☑ Products designed in easily segmented components***
- ☑ Adds flexibility to both production and marketing***
- ☑ Improved ability to satisfy customer requirements***

Design Optimization

- Design optimization is a programmed mathematical technique that integrates this iterative design cycle into an automated process.
- The analysis, evaluation, and modification tasks are performed automatically, making it possible to obtain an "optimum" design more efficiently.
- Resulting iterations can improve understanding of design behavior.

Design as Marketing tool

Establish Brand Identity, Look, and Feel

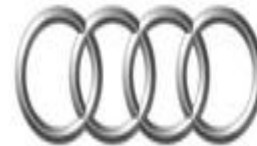
When you think of the world's most well known brands, you can instantly picture their logos, unique color schemes, and even fonts. This isn't something these strong brands luckily stumbled upon; a lot goes into developing the ideal logo, finding the perfect color scheme, and making the right font choices with graphic design.

Psychological studies have been conducted to see how people perceive different colors, and marketers use those principles in their branding to help convey quality or a different message. Certain colors can create excitement or sadness, increase appetite, or even create a feeling of warmth or coolness. If you want to convey your product or service is high-end, for example, brands will often use colors like black, gold, or silver.



LOUIS VUITTON

CHANEL



Mercedes-Benz

ACURA

Hilton

LEXUS

Design as Marketing tool

Raise the Visibility of Your Campaigns

With so many companies competing for attention online, having exceptional design is one of the best ways to differentiate yourself from the crowd. Likewise, if your design stinks altogether, you really have no chance of being noticed (or taken seriously).

As humans, it's in our nature to habituate our environments and become familiar with things that don't stand out. If people noticed every detail of every little thing, there'd be information overload. For designers, it's important to visualize your marketing the way your target persona sees it, so you can better determine what would help it stand out, and stay away from designs that make it unappealing to them.



Design as Marketing tool

Drive Conversion and Ultimately ROI

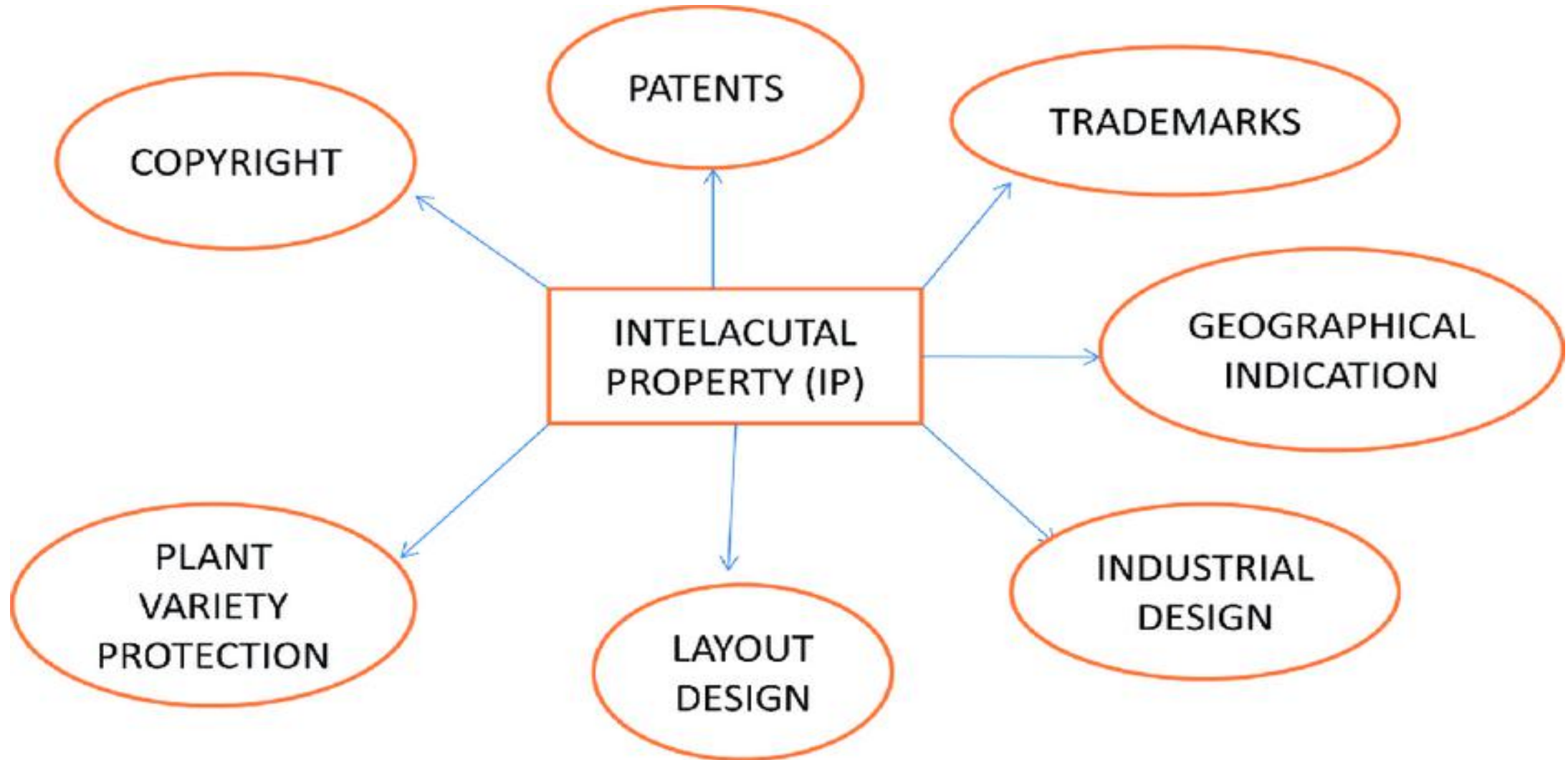
Great design can do a lot to improve your marketing efforts, and it does more than just help your content stand out and look good. Using the right design can help influence more conversions and, ultimately, attract potential customers and improve your ROI. It's been proven that photos of people can help increase empathy, for example, as researchers have found that people feel a deeper connection to images with other people than those without.

Photos of women, babies, and attractive people have also been proven to increase visual response rates (sorry regular people), and photos of objects can also help increase trust (e.g., detailed product images). When combined with conversion opportunities, relevant, well-placed photos can help increase conversions on your offers, and eventually more customers.

What is IPR?

- ❧ IPR is a right which give monopoly of any intellectual creation of mind.
- ❧ It is a combination of science and technology both.
- ❧ It is given for any new creation such as composition of music, writing of a book, new invention.

Types of IP...



4 TYPES OF INTELLECTUAL PROPERTY TO PROTECT YOUR IDEA

TRADE SECRETS

- Protects secret information
- E.g., New invention, Coke formula

TRADEMARKS

- Protects brands
- E.g., Apple for cell phones

COPYRIGHTS

- Protects works of authorship
- E.g., books, movies, drawings

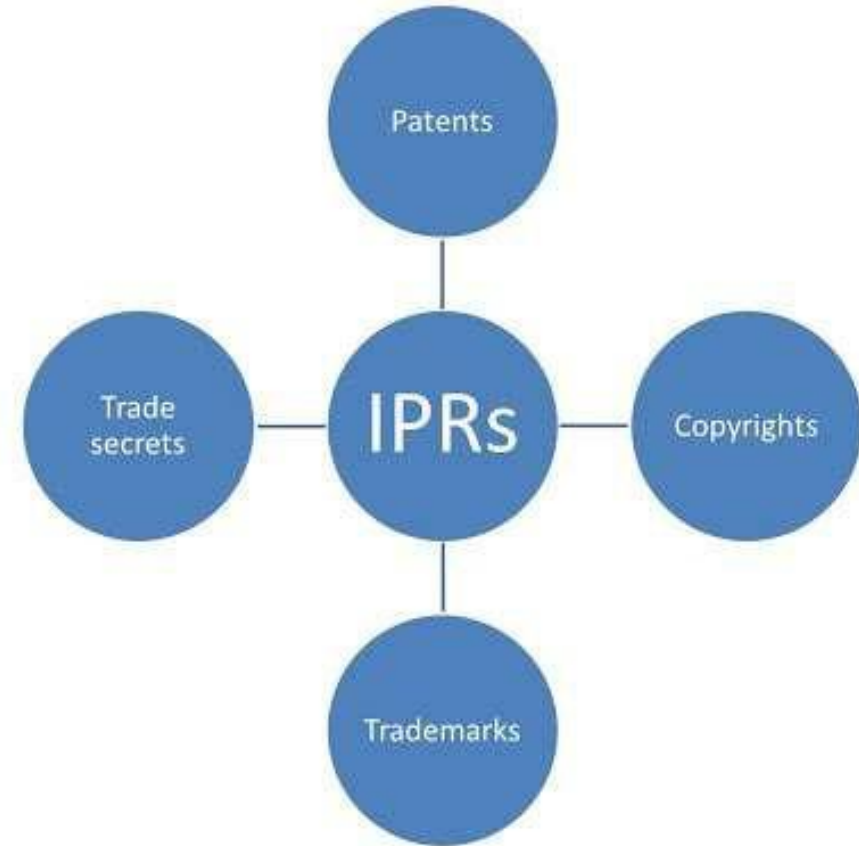
PATENTS

- Protects functional or ornamental features
- E.g., swipe feature or iPhone design

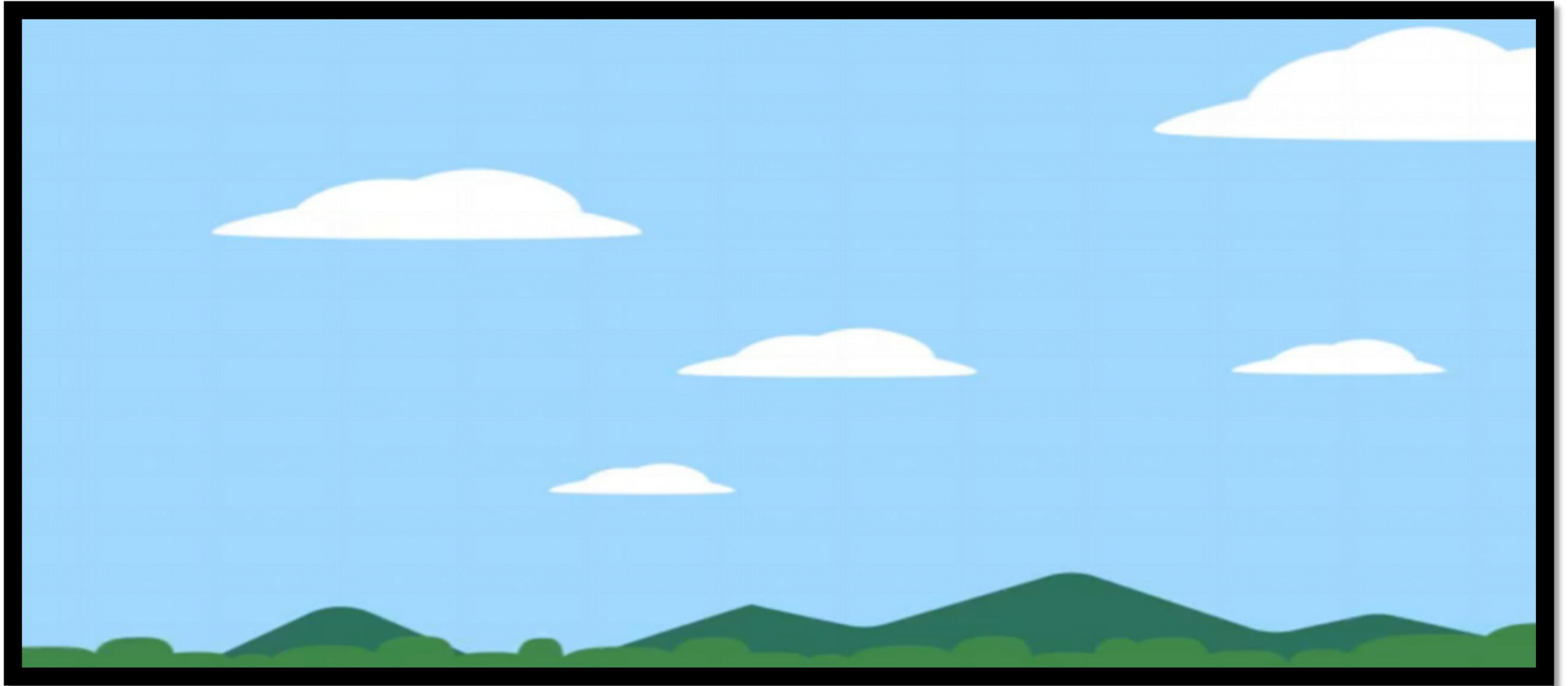
Classification of IPR

- Broadly IPR are of 8 types:

1. Patents
2. Trademarks
3. Copyrights
4. Industrial Design Rights
5. Plant Varieties
6. Trade Dress
7. Trade Secrets
8. Financial Incentive



Let us understand IPR with this short video



What is a Patent ?

- A **P a t e n t** is a set of exclusive rights granted by a sovereign state or intergovernmental organization to an inventor or assignee for a limited period of time in exchange for detailed public disclosure of an invention.



Characteristics of a Patent

Novelty : Something new & non-existent in prior art
(previously existing knowledge)

**Non-obvious/
Inventive Step** : *An idea is non-obvious if it would not be discovered by one of
"ordinary skill in the art" when the idea was needed*

Utility : Usefulness of an invention

3 Different Types of Patents

- Utility Patent
 - Most common type granted
 - Works to produce a useful result
 - Process (ex. making a new chemical or a new business method)
 - Machine (ex. camera)
 - Article of Manufacture (ex. carpet)
 - Composition of matter (ex. adhesive)
- Plant Patent
 - Distinct & new variety of asexually propagated plant
 - Not by tuber propagation, found in an uncultivated state, or by seeds
 - Can also be protected by a utility patent if it meets those requirements
 - Ex. hybrid rose plant with a novel color
- Design Patent
 - Ornamental appearance of an article of manufacture
 - Design and the applied object are inseparable
 - Can also be protected by a utility patent if it meets those requirements
 - Ex. surface ornamentation of flatware

What can't be PATENTED??

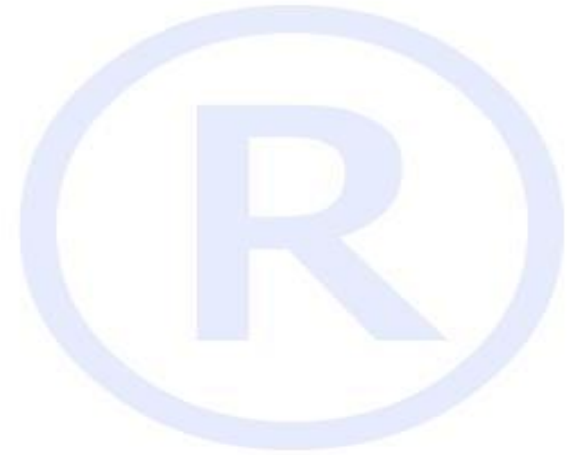
- Discoveries, Scientific theories, Mathematical methods
- Business Schemes.
- Anything against natural law.
- Weapons of mass destruction.
- Nuclear and Atomic technology.
- Surgery Methods.
- Anything which is contrary to public order or morality.



What is a Trademark?

Trademark:

- A distinctive sign which identifies the goods and services of one company from those of another
- A trademark helps consumers to identify and choose between products/services based on their reputation and quality





**Coca-Cola
registered
since 1887**



**Nike
registered
since 1971**

A trademark may be designated by the following symbols:

-  (for an **Unregistered Trademark**, that is, a mark used to promote or brand goods)
- **SM** (for an unregistered **Service mark**, that is, a mark used to promote or brand services)
-  (for a registered trademark)

Copyright ©

- Copyright definition:
 - Copyright gives you a set of rights that prevents other people from copying your work and doing other things with your work that you may not like.
 - Copyright happens automatically as soon as a copy of the work is created. Just because you don't see the © symbol doesn't mean the work is "public domain."

In general, it is **illegal** for someone to copy a work created by you without your **permission**.

Assignment of Copyright

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- The owner of the copyright may assign to any person the copyright either wholly or partially.
- Duration, in case of default
 - ▣ 5 years
- The moral rights are independent of the author's copyright and remains with him even after assignment of the copyright.

Trade Secret

- Trade Secret

- Information used in the conduct of a business that isn't commonly known by others.
- A process, method, plan, formula or other information unique to a manufacturer, which gives it an advantage over competitors



- A trade secret can be defined as (i) information (ii) that remains secret to others (iii) through reasonable means to protect its secrecy and (iv) creates actual or potential economic value for its owner.



Examples of Trade Secrets

- Customer lists
- Recipes
- Financial projections
- Business methods
- Marketing plans
- Formulas
- Devices
- Manufacturing techniques
- Processes
- Sales data
- Market studies
- Pricing information
- Computer programs