FUN ACTIVITY - 6
Search Engine Analysis-DuckDuckGo
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INTRODUCTION:

DuckDuckGo(Abbreviated as DDG)

- Multilingual Search Engine Based in Paoli,Pennsylvania
- Highlights Privacy of Users as it's distinguishing feature
- Has processed 57 billion search queries till date.
- DDG's results are a compilation of over 400 sources
- Used by around 12 million users daily on an average.
- Company name is a reference to the children's game duck,duck,goose

INTERACTION DESIGN ISSUES:

- Language change option is not easy to locate.
  - This problem/issue is discussed with respect to Google Search Engine. In Google Search Engine the language change option is located in the main window just below the search bar.

  - But in duckduckgo the option is tough to locate. If a user doesn't understand English he will find it tough to locate the language change option.
  - In DuckduckGo the language change is available in the Other Settings tab.
 - If a user doesn't know English it's very tough to locate this language change option.
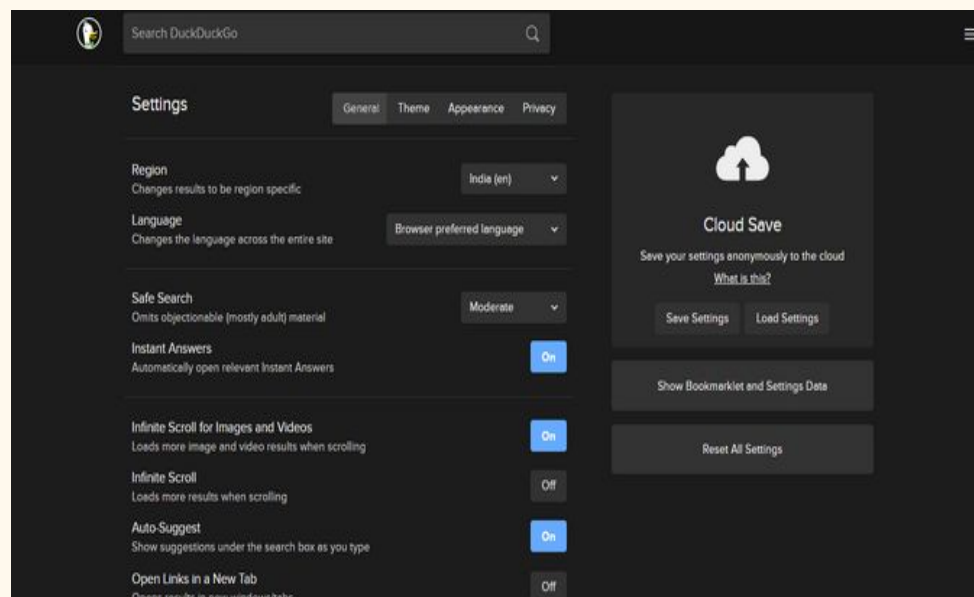
- Search/Location based recommendations are not available in DuckDuckGo as it doesn't store our search history or location. For location based search queries we have to enter the location explicitly.
  - For Example , In google search we can just say "Restaurants Around Me" but in DuckDuckGo we have to enter "Restaurants Around IIITDM Kancheepuram".
- The UI of the mobile version of Duckduckgo needs to be developed.
- Sometimes search results take more time to load.
- In the homePage of DuckDuckGo, we can't close a dropdown list by clicking anywhere on the screen, and closes only when clicked on the button again.This sometimes is irritating.

FEATURES:

- Instant Answers
  - In addition to indexed search results, it displays relevant search results called instant answers on top of Search Page which are collected from either third party APIs or static data sources.
- Tor Access
  - Tor Access allows you to search the web anonymously and your traffic is encrypted.
- Bangs
  - DDG includes '!bangs' keywords where you can search on specific third party websites for example !linkedin username would search for an username on linkedin
- Voice Search
  - Voice Search was introduced in the year 2011
- Business Model
  - Duckduckgo earns by serving ads from Yahoo Bing search alliance network and through affiliate relationships with Amazon and eBay
- Source Code.

DESIGN LAWS:

1. Law of Proximity:
   a. Objects which are closer to each other are perceived as similar by humans.
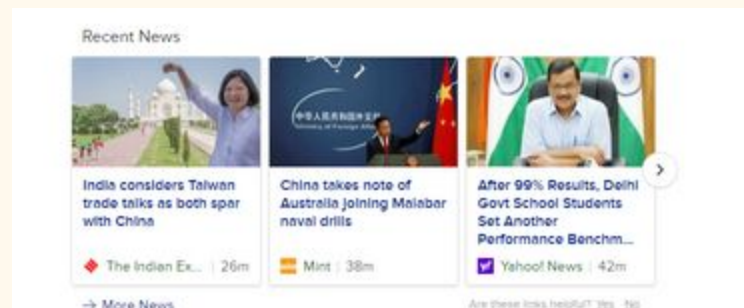
b. News items(cards having headlines) are grouped together as they are similar.So that we can see all the news items together in one space.

c. All page related settings are positioned at the top-right corner of the window.

2. Law of Continuity:

a. Duckduckgo has an infinite scrolling feature which does not interfere with the flow of the person and enables the user to continue his/her search.

3. Law of Conservation of Complexity(Tesler's Law):

a. Every application has an inherent amount of complexity which cannot be removed or hidden.

b. Having different options for search viz. Web,Images,Videos,News,Maps and different search filters in the form of dropdown menus and displaying search results along with page settings options are the

minimum features in one window are the minimum features of a search engine.
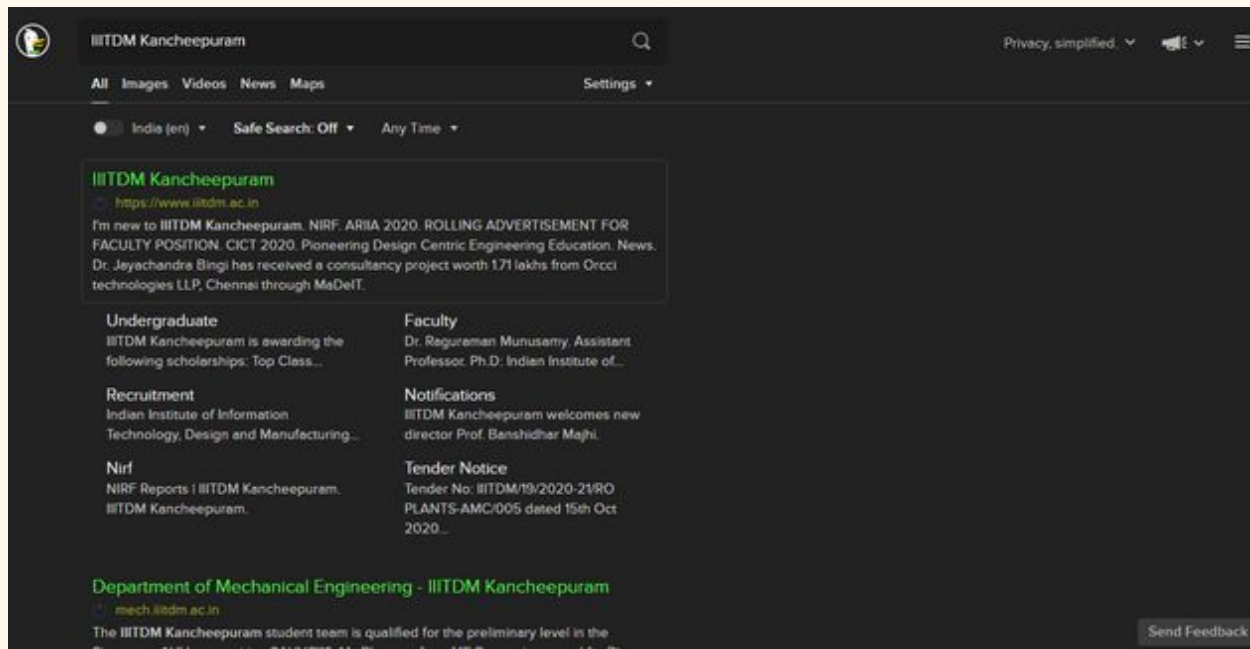
4. <u>Doherthy's Threshold:</u>
    a. Doherty Threshold states that productivity is improved when computers and their users interact at a pace where one doesn't have to wait for the other. And the user experience turns from painful to addictive after system feedback time drops below a certain threshold.
    b. The search results are shown as soon as possible to make the user experience less painful.
5. <u>Jakob's Law of Usability</u>:
    a. Users spend most of their time on other sites.
    b. This means that users prefer your site to work the same way as all the other sites they already know.

c. The UI of Google and Duckduckgo is similar with same search options and search filters and search results are displayed in the same way.
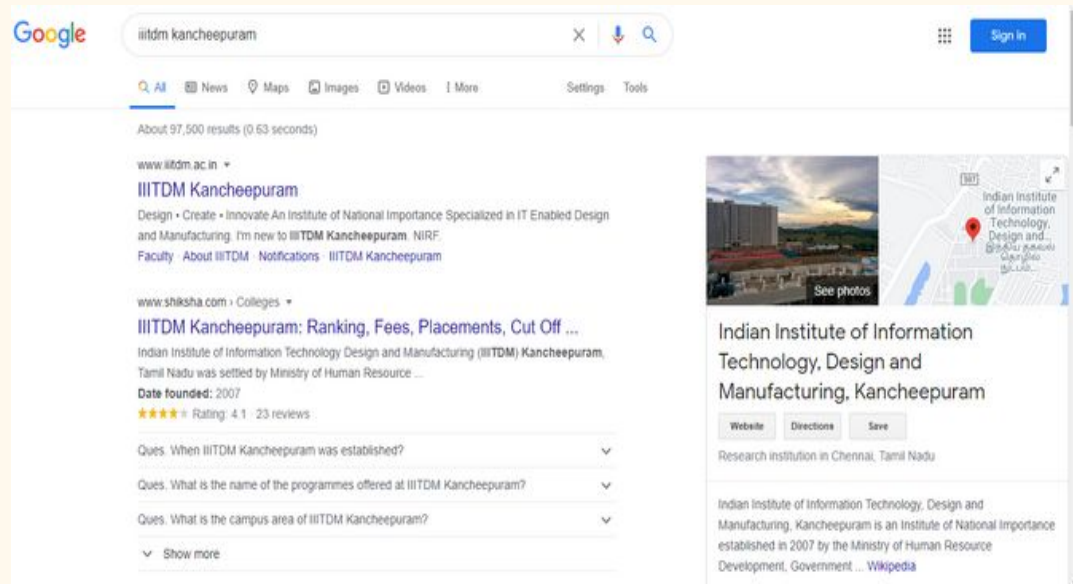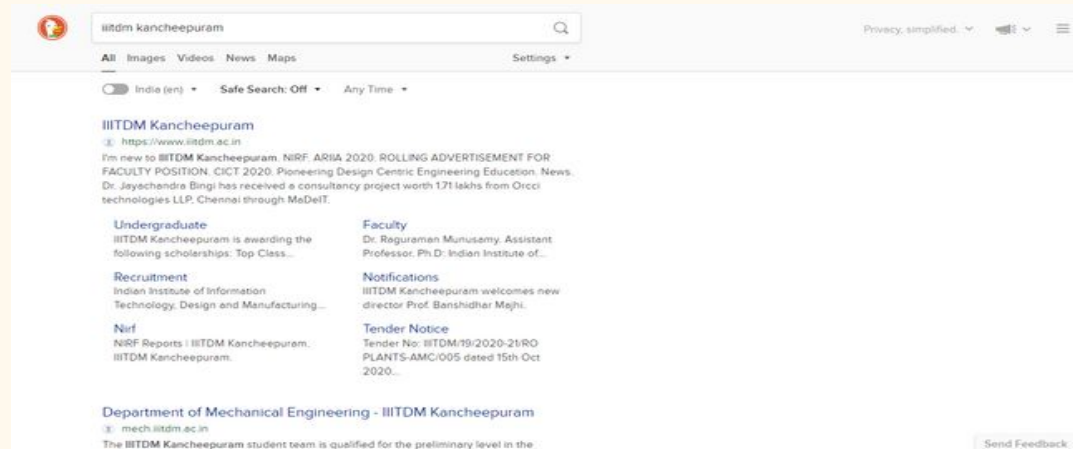
6. Miller's Law:

   a. The number of objects an average person can hold in working memory is about Seven Plus or Minus Two.

b. The number of types of search and number of search results in a single page are limited to a certain number and the page is not crowded.