5 Principles of New Media

Based on the writings of Lev Manovich (2001)
**New Media** is a relatively new field of study that has developed around cultural practices with the computer playing a central role as the medium for production, storage and distribution.

'Media' refers to technologies used to communicate messages.

'New' in this context means:
- the novelty of digital computing;
- the speed of evolution and mutation of devices and technologies;
- undeveloped, imperfect and experimental environments;
- incorporates different disciplines.
According to Lev Manovich, in *The Language of New Media*,
new media operates under **five basic principles**:

These principles make these "texts" quite different to
produce, store, and distribute than was the case with print,
drawing, or analogue texts.

The following is a summary of these five principles:
1. Numerical representation

Because they are based on digital codes, new media texts are numerical. Converting continuous data into a numerical representation is called digitalization.
2. Modularity

Different media - text, photographs, video, audio, etc. - can function as separate objects or modules that can be combined together in different ways without losing their independence.
3. Automation

The production and combination of the modular parts is often completed through the use of highly automated systems. Digital photos can be automatically filtered to change their quality through software programs.

Hollywood filmmakers can employ computer graphic or 3-D systems to create animation images, such as the use of thousands of soldiers in the *Lord of the Rings* film series.

Websites automatically adjust to specific users, providing them with information based on their previous visits.
4. Variability

The same new media texts can also be automatically created in different versions to suit individual users' needs. Again, due to the modularity principle, the different components of the same texts can be varied to create new texts. For example, hypermedia texts, which are created through linking together disparate texts, can be varied according to the different combination of links or pathways, resulting in different texts. Texts are also continually updated, creating new, more recent versions of texts. The size or scale of a text can be varied using zoom/close-up features on Mapquest maps or images. And, different versions of the same media content can be varied as when films are made into computer games or games such as Tomb Raider are made into films.
5. Transcoding

Refers to translating something into another format.

New media exists on two different layers:

a “cultural layer” and a “computer layer.”