

# THE CHANGING FACE OF INTERFACE

"Over the past fifty years, the evolution of the computer user interface has allowed for the computer system to become a common household object, contributed to increasingly positive user experience and dramatically changed the ways that people work, live and play."



## DESKTOP

The desktop computer revolutionized the computer world with its compact size and performance. Earlier computer systems such as the UNIVAC were large, commercially oriented machines fed by punch cards and impractical for home use. The desktop brought unprecedented form and function into business and everyday life.



## LAPTOP

The laptop brought great convenience and portability to the users world. This allowed the users the ability to use their computer as way to work and share on the go- not only in everyday life, but for their careers, for business opportunities and for educational purposes in the classroom and beyond.



## MOUSE

The introduction of the mouse in 1964 brought a new and more physical way to interact with the computer. With commercial availability in 1984, Apple brought the mouse into the everyday household. This allowed for more natural real-time interactions and an extension of human-computer communications.



## KEYBOARD

The keyboard initially shared many of the same characteristics as that of the traditional typewriter. With the introduction of shortcut keys and the ability to "undo", the user was able to quickly to edit and change their documents, forever changing the business world of data entry. With the wide prevalence of texting today, the QWERTY keyboard is as prominent as ever, but is now seen in a radical and intuitive new form.



## GAMING

The home gaming system became a popular form of entertainment with its introduction in the 1970's. This brought a new form of entertainment to the public, and changed the way that computers were initially perceived. Gaming was now no longer limited to board games and card decks.



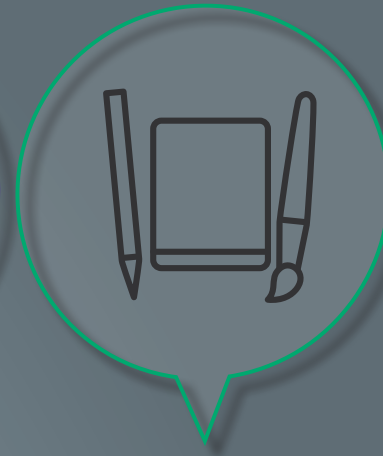
## SMARTPHONE

The smartphone has brought the web, social media, email and GPS based mapping and services to anyone with a handheld device. This ability to communicate at anytime and anywhere has made the world a closer more connected place.



## E-READER/TABLET

The E-reader, while similar in some ways to a tablet, iPad, or smartphone, is perceived mainly as a device for reading books digitally. It has allowed for quick downloads, consumes less space than a typical book collection and can be easily notated and highlighted for later use.



## SCANNER/ART TABLET

The scanning device allowed the user to import documents, artwork and photography into the digital realm. The Wacom tablet allowed for almost unlimited artistic self expression through natural and direct digital input of drawing and painting capabilities and techniques. The ability to quickly save and edit artwork was radical to the world graphic designer.

## WEB 1.0 vs WEB 2.0 :

With the transition from web 1.0 to web 2.0, the world wide web became more user centered, responding to the user needs and desires to share information, pictures through social media and to collaborate with informative living documents that can be updated and contributed to by all users through editing, such as Wikipedia. Interface devices such as the smartphone take advantage of this new world by allowing for instant connection and self expression, at anytime and anyplace.

### WEB 1.0

#### LESS USER CENTERED

PRIMARYLY CONSISTED OF STATIC PAGES, MORE TEXT BASED WITH SHARING BASED ON USENET AND MESSAGE BOARDS

### WEB 2.0

#### A RESPONSE TO USER NEEDS

FOCUSED ON SHARING, PARTICIPATION, COLLABORATION, INTRODUCING A SOCIAL COMPONENT AND KEEPING USERS CONNECTED TO NEWS AND MEDIA

NEEDS

## HOME GAMING SYSTEMS

Beginning in the 1970's, **home gaming systems** have changed the way that humans interact with computers. These systems have brought a new form of entertainment to users of any age, and have used radical new interfaces as tools of interaction between the user and machine. The early joystick allowed for unprecedented control and movement on screen with console machines such as the **Atari 2600**. As the technology developed, these controllers became much more complex, not only adding more accurate control, but also allowing for simple data input, menu functions, and ultimately providing revolutionary advancements such as motion sensor technology that enables user physical activity to be rendered directly on screen with systems such as the **Wii**, and **Wii MotionPlus**.

## BATCH • COMMAND LINE • GUI

- In the 1950's **Batch processing** was possible through computers such as the UNIVAC. This process used punch cards to supply the computer with programming information.
- As the 1960's progressed, **Command Line** interfaces required text based programming that could be entered as "commands" into the computer.
- From the 1980's onward, **Graphical User Interfaces** have used visual icons and graphic based representations to bring computer interaction into the lives of typical everyday users in a format that is much simpler and easier to use from previous incarnations. These visual indicators can be seen in the operating systems and interfaces of desktop computing, gaming systems and smartphone technology of today.

## THE UTOPIAN VIEW OF COMPUTERS

The idea that the computer as a tool that can be used by all people to share and collaborate with was introduced the **Utopian View of Computers**. In this idea, the concept of sharing and open communications was predicted. Early forms of this idea can be seen in the usenet, message boards and blogging and social media of the web 2.0.

## THEORY & SUMMARY

The **interface** should be considered as a tool, one that can be used as a way to interact between man and machine. Throughout its history as a wide-ranging household technological device, we can see that the computer interface has grown with the needs of society, affording the user new opportunities for business, entertainment, artistic self expression, communication and sharing, and education and learning. These capabilities have changed the lives of the user, by allowing them to complete actions that were not possible before. These actions are affordances that have been provided by the new technology that has been created.