The Mouse Within the Creative Industry

Finding the Problem

Target Market

- ***Primary Focus:*** *Creative industry users who spend long hours on a set few of applications including: Video Editing, Visual Effects, Graphic Design, and CAD software.*

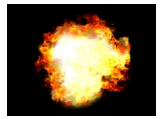
- *Secondary focus: everyday users / general public Individuals who use computers on a daily or frequent enough basis*

Who are they?

They are

Individuals who spend long hours in one to two applications rather than jumping between multiple application over a long period of time

Modeling



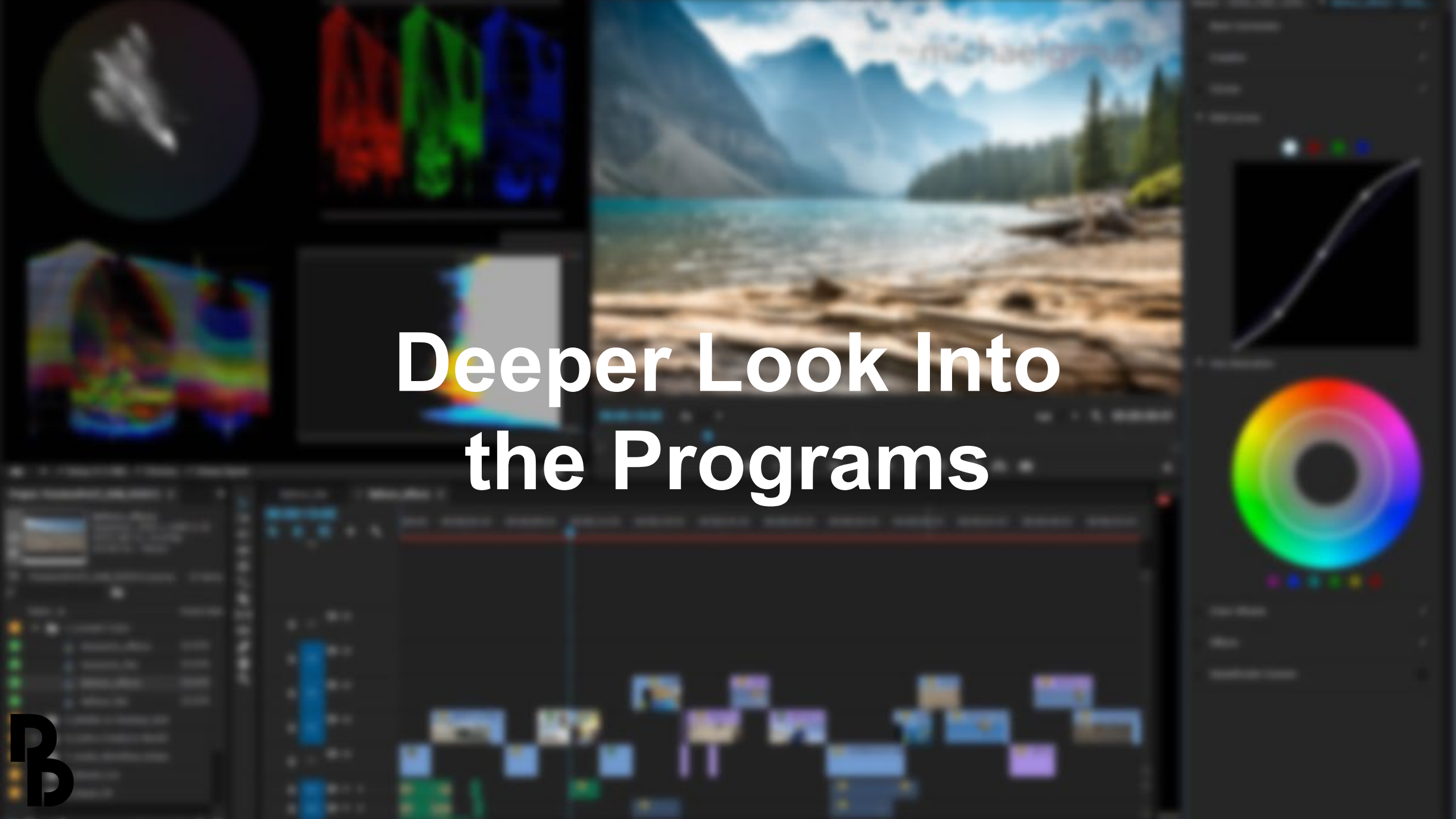
VFX

Editing

Modelers
Design 3D models using CAD software for either Designv(for a real product), or for VFX (CGI)

VFX Artists
Take footage and other elements and create realistic sequences that have effects that appear to be in the scene.

Editors
Take finished sequences and audio components and place them in a video in a coherent fashion



Deeper Look Into the Programs

CAD

Main Programs

- The industry standard programs for CGI for VFX are: MAYA and Houdini.
- The industry standard programs for CAD design are: SolidWorks and AutoCAD

Using Program entails:

- inputting specific numbers for dimensioning, dragging objects, navigating the scene in 3D space, moving and rotating around object in 3D space, creating multiple objects and joining them together to form bigger objects, adjusting precise parts of the model, using calculated functions and equations (so that the dimensions of one object is controlled by another), creating patterns to use across the model, using creativity to achieve certain shapes with the tools provided by the software, texturing/decals, shading, and rendering.

VFX

Main Departments

- Compositing
- **Environment effects**
- **Chroma keying**
- **illustration**

Using Program entails:

- Assessing footage, scrubbing through timeline (window that shows sequence of clips), dragging clips, inserting effects, creating new elements to add to the shot, creative problem solving, shot tracking (tracking a clip to attach a digitally created element to a moving object), compositing, detailed and precise mouse positioning to move objects, elements, and frame point to a precise location, color correction, and frequently playing and re-playing segments of clips.

Video Editing

Main Programs

- Final Cut pro,
- Adobe Premiere pro,
- DaVinci.

Using Program entails:

- dragging your mouse through the timeline (the window showing you the sequence of clips) to scrub through the sequence, making cuts to clips, adjusting the position/ rearranging of clips, adjusting speeds of clips , assessing footage, adding visual elements (text, effect elements, and other illustrations), placing and synchronizing music and sound effect files to the video, adjusting the overall sound of the video, frequently re-watching sections of edited sequences, and color correcting/color grading the sequence. This process can get very complex as editors work with more and more footage and elements. All these afore-mentioned steps are standard across all softwares and programs.

Why Long Hours?

Modelers

CAD Professionals spend most of their time in their modeling software. once they have a design that needs to be either produced (in the case of Design modeling) or passed on to the VFX artist (in the case of VFX&Editing), they can begin their modeling process. whether it is CGI or CAD design, modelers need to create entire models with intricate parts and elements usually from scratch. this process can take hours or days to complete.

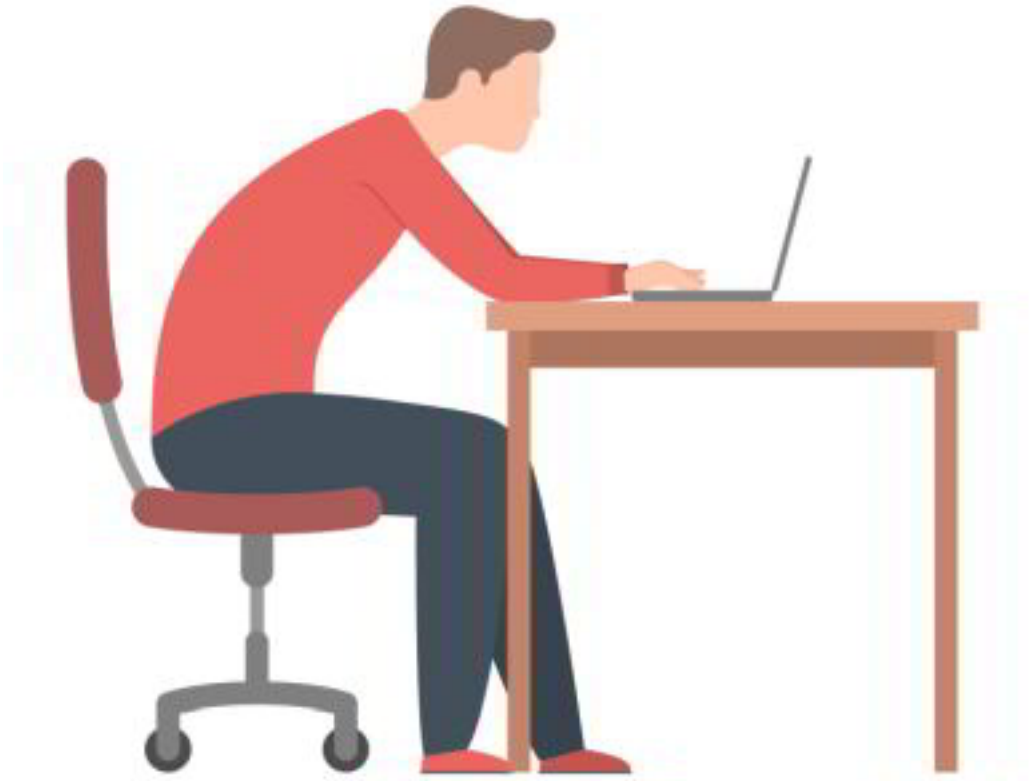
VFX Artists

Most if not all of these fields have commonalities in the VFX Process. Most of them work with individuals frames (and keyframes) and must animate the position of those frames to achieve a moving sequence. This process can take hours, days, and in the case of high profile movies, months to complete. They also must use their creativity to achieve the look that they desire for that particular sequence (some shots require a different aesthetic and thus require a different method or approach to the shot).

Videos Editors

Editors mainly spend their time in their editing software. at the beginning of their editing process, they must first compile and sift through the footage they either shot or received. this takes a substantial amount of time seeing that they can sometimes deal with hours of footage at a time. after they have sifted and sorted/labeled their footage in an organized fashion, they can now begin the editing process which can take hours or days to complete.

Posture



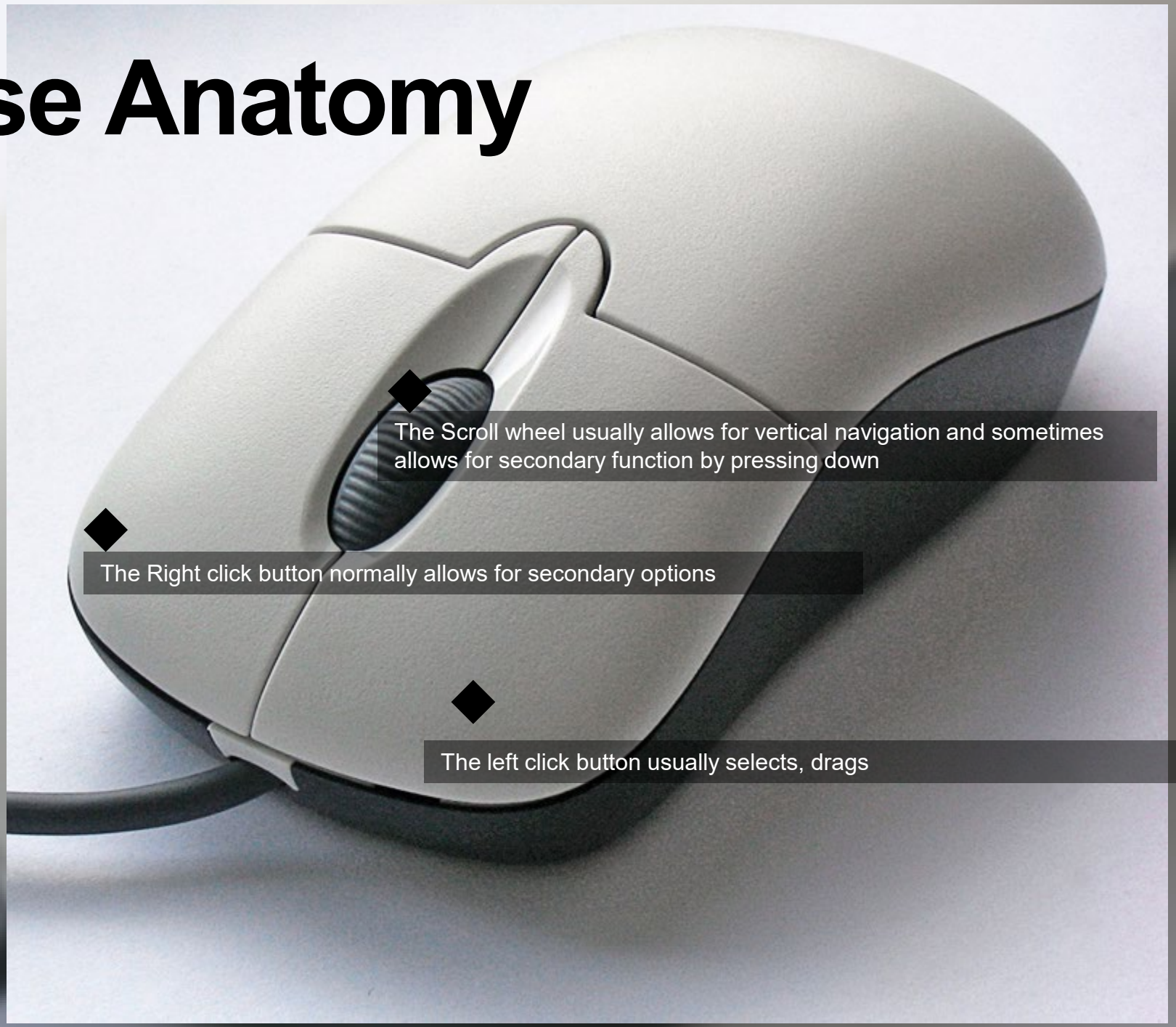
Most mice don’t invite good posture

“‘Your spine naturally wants to be in **an extended position** with your shoulders back and your bottom slightly sticking out, but a chair with no lumbar support can allow your spine to move into a “c-shape”, which puts strain through the supporting muscles,’ says Tim”.

“Some people even work from bed — ‘a terrible place to work,’ he says. ‘Even if you prop yourself up with pillows, sitting puts you at a 45-degree angle with your neck craned forward looking down at a screen.

‘This puts a significant amount of strain through your neck — your head weighs about 8kg and the muscles which support it are designed for rotational movements — not load carrying.’ So what is the best solution? ‘Reduce the amount of time you spend leaning forwards over a laptop to a maximum of 15 minutes,’ says Tim.”

Mouse Anatomy



The Scroll wheel usually allows for vertical navigation and sometimes allows for secondary function by pressing down

The Right click button normally allows for secondary options

The left click button usually selects, drags

What Do Creatives look for in a mouse?

01 Decreasing or eliminating the wrist deviations as ulnar and radial deviation and dorsiflexion;.

02 Preventing forearm from pronating with excessive angles;

03 Mouse fitting properly in hand

04 Able to be used by left-handed users

05 User quick ability in interaction with keyboard and no time consuming mouse grip;

06 Placement of components as to not have accidental triggering

07 Cursor possessing maximum movement with minimum scroll wheel rotation;

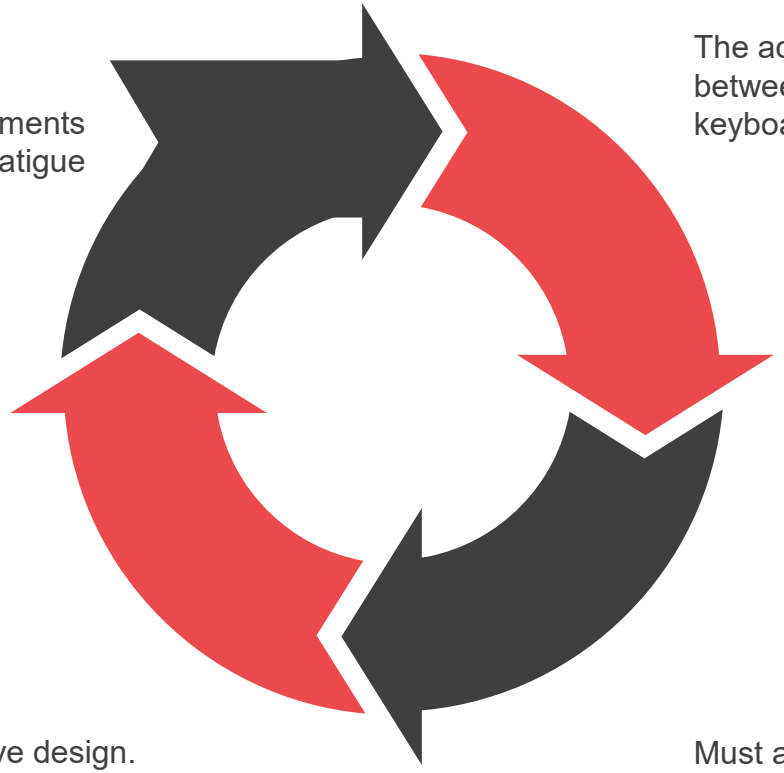
08 Designed mouse must be light and portable;.

09 Must not have excessive or unnecessary buttons.

Reoccurring Themes/Issues

Certain hand movements create hand fatigue

The act of frequently go in between mouse and keyboard is not cohesive



Non intuitive design.

Must allow for speed & precise movements

Name
$
Function
Pros
Cons

Market Research

Popular Mice

Dell Wireless

$22.99

Regular mouse functionality

Simple, Small, wireless

Non-ergonomic

Microsoft Modern Moble

$44.99

regular mouse functionality

Simple, Small, Wireless

Non-ergonomic

Apple Magic Mouse

$100

regular mouse functionality

Simple, Small, Wireless

Non-ergonomic

logitech MX master 3

$99.99

Uses faster and quieter scroll wheel, extra programable buttons

ergonomic, extra functionality, intuitive, wireless

Bulky, not low profile, high price

Logitech MX ERGO Trackball

$99.99

extra programable buttons, tilts mouse to 20 degree angle, trackball cursor movement

ergonomic, extra functionality, charging instead of batteries, wireless

Bulky, not low profile, price point

Innovative Mice

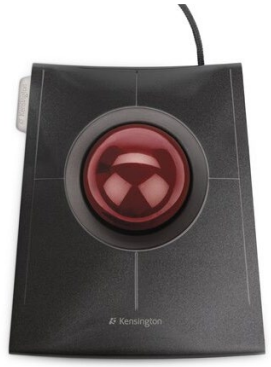
Anker 2.4G Wireless Vertical Ergonomic Optical Mouse

$29.99

extra programable buttons, tilts mouse to to upright position

ergonomic, extra functionality

Bulky, not low profile,



Kensington SlimBlade™ Trackball

$99.99

extra programable buttons, uses track ball curser movement

ergonomic, extra functionality, charging instead of batteries

Bulky, not low profile, wired, price point

Microsoft Surface Arc Mouse

$99.99

regular mouse functionality with track pad integration, Turns Power on when folded up and turns power off when flat.

Simple, Small, Wireless

Non ergonomic, too small for comfort, clicking issues(would left lick instead of right is two fingers are on the mouse),

Your Text Here

$75.99

Uses uses triggers to act as left and right button clicks, has completely vertical position.

ergonomic design,

not intuitive hand hand movements, very bulky, wired,

Lychee Pen mouse

$20.99

Uses uses triggers to act as left and right button clicks, has pencil/pen-like form factor

ergonomic design,

not intuitive button placement, , click buttons on the side are difficult to do while keeping pen in place, does not have stylus-like functionality

Quick analysis

- If mouse if very ergonomic, it is bulky and expensive
- If mouse is small portable and cheap, it is not ergonomic
- Most mice use the same technology but put components in different locations

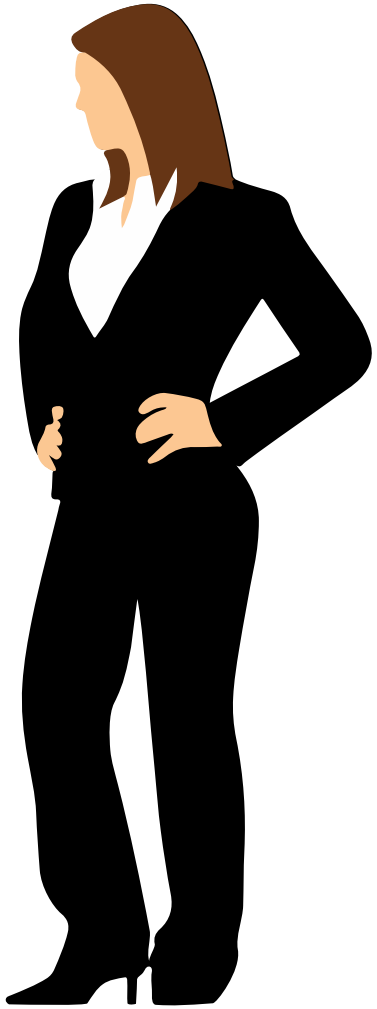
Tentative Product Requirements

Must be ergonomically comfortable

Must not have accidental triggers

Must be intuitive

Must increase efficiency of movement between mouse and keyboard



Must be able to be used by a left-handed user

Must be low profile and easy to store/take on the go

Must allow for both fast and precise selection

Must allow for both fast and precise selection


END