



# New Screens

DM3005 Interactive Devices Presentation  
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# Definition

**“a flat **surface** on which a picture or series of pictures is **projected or reflected****

**the **surface** on which the **image appears** in an electronic display;**

**also: the **information displayed** on a computer screen at one time”**

**– Merriam-Webster Dictionary**

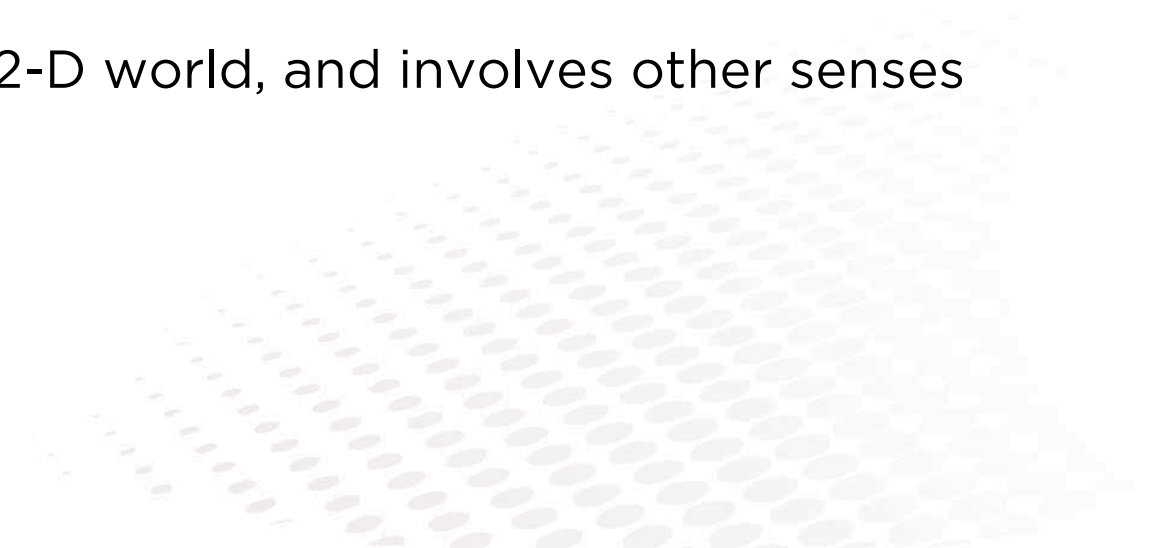


# Historical Backdrop






# Principles

- New Screens changes:
    - way of seeing
    - user-interaction
    - user interface
    - user-experience
  - Transcends the 2-D world, and involves other senses
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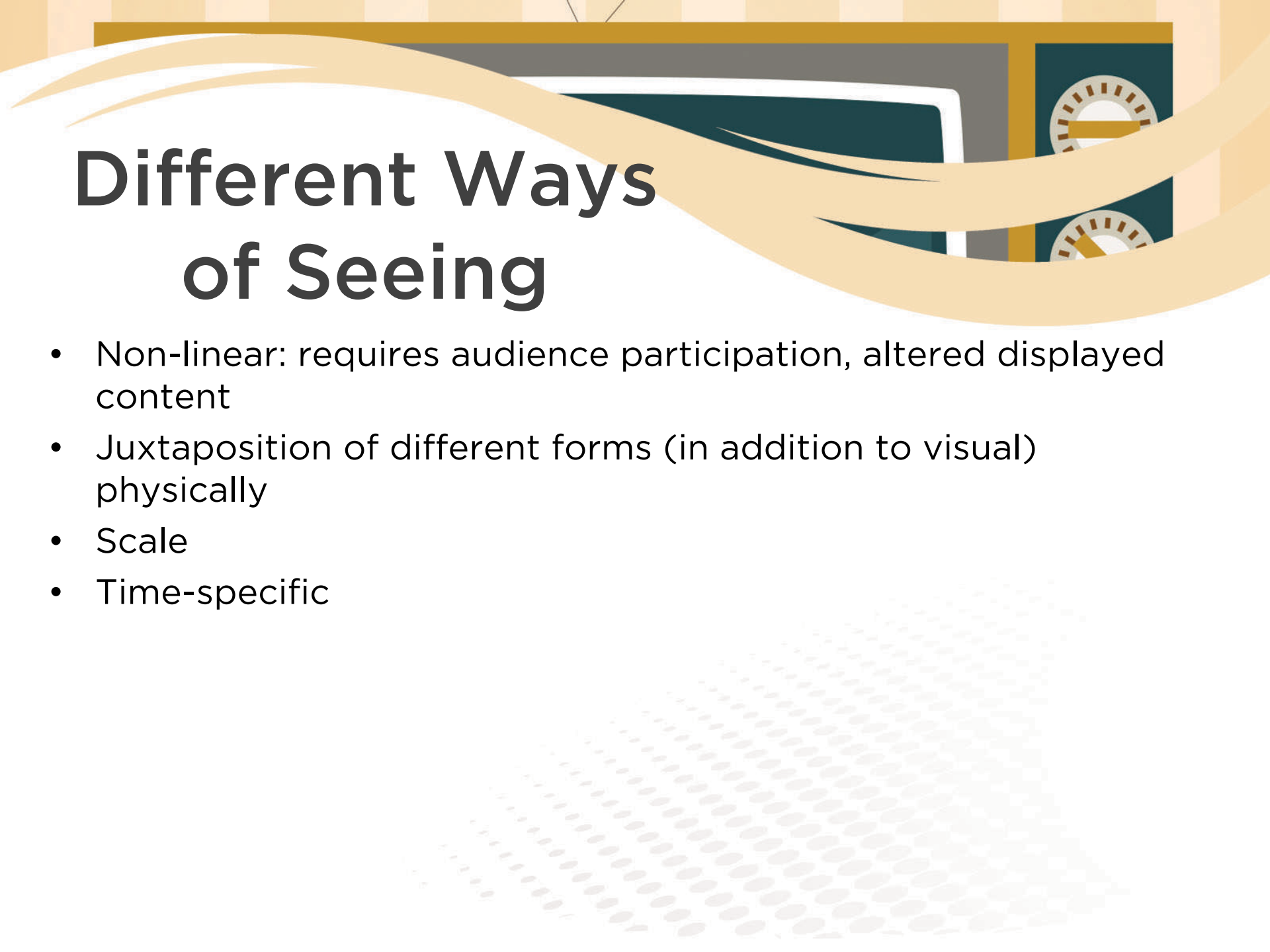


# Principles

- The surface loses its status of a decorative element, and becomes an entity by itself
  - The surface now has the ability to achieve new relations, in different forms of relatedness
- 



# Different Ways of Seeing

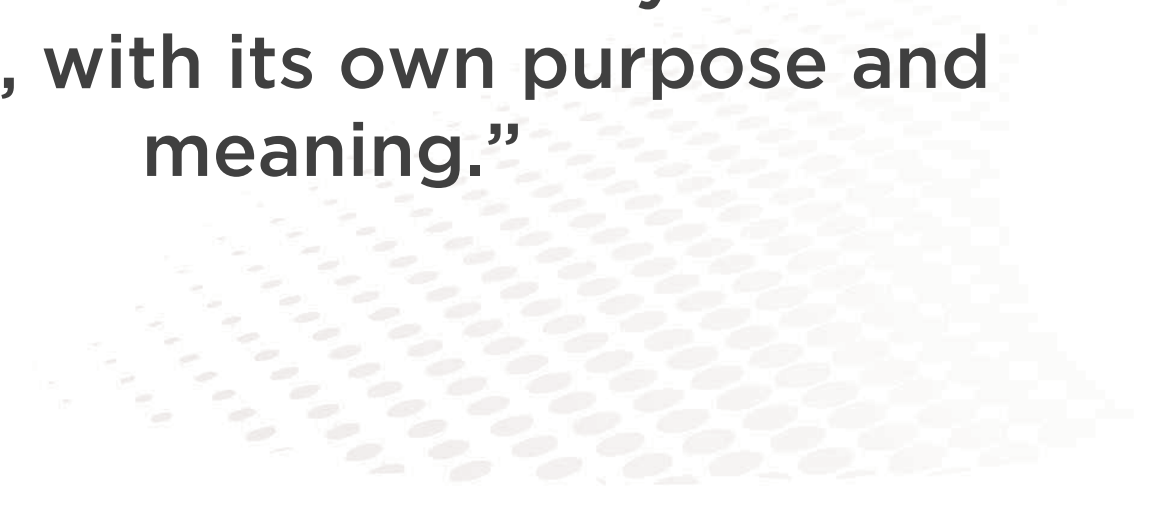
- Non-linear: requires audience participation, altered displayed content
  - Juxtaposition of different forms (in addition to visual) physically
  - Scale
  - Time-specific
- 



# Thesis

**“By introducing a different manner of seeing, New Screens alter the status of the screen as a static object.**

**Instead, it becomes an entity of its own standing, with its own purpose and meaning.”**



**Modifying the body of the screen can imbue new functionalities and gestures into the screen**

# Case Study: Sgnl

- Sgnl is a smart strap that allows you to answer phone calls through your fingertip.
- Embedded microphone on strap
- Eliminated the need for an extra headset/headphone
- Finger will transmit sound and block out background noise



# Sgnl



## Call Reminder

Keep in touch with those who matter. Monitor call frequency and get discreet nudges to call your significant others.



## Activity Tracking

Stay fit, stay healthy. Monitor your workout patterns and track your steps with its built-in pedometer.



## Smart Alert

Never miss any important alerts. Sgnl alert you to calls, texts, or app notifications with different patterns.



## BCU (Body Conduction Unit)



The image above is a real photo of the product.

It contains two technologies.

- 01 An actuator unit that generates a body-conductible vibration with remarkably low power consumption.
- 02 An audio algorithm that selectively amplifies voice signals with proper wavelength modulation.



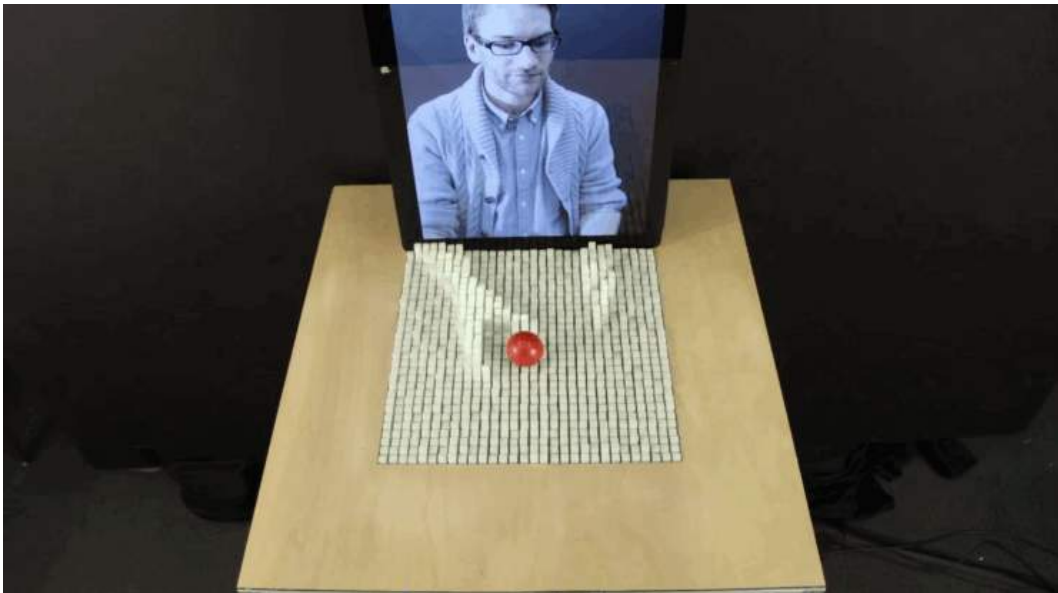
# Analysis: Sgnl

- The user no longer sees, but hears; altering user interactivity
- Transposing familiar gesture, eliminating the use of a device
- Hands: the new device
- A new purpose is ascribed for the hand



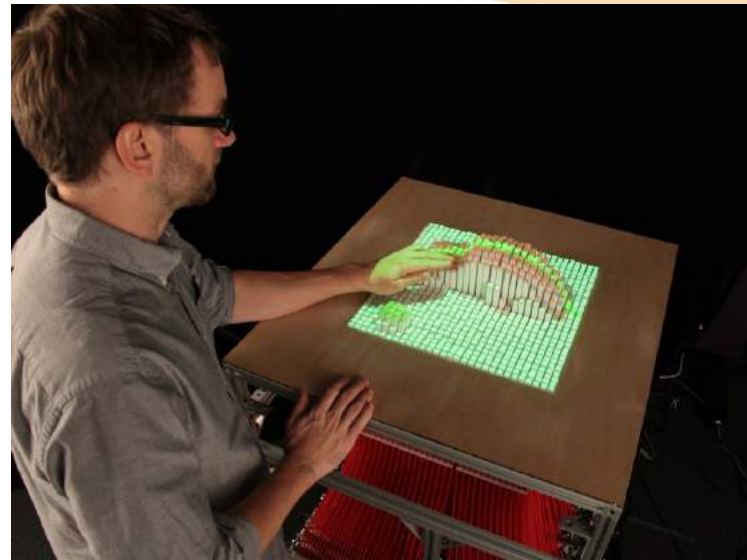
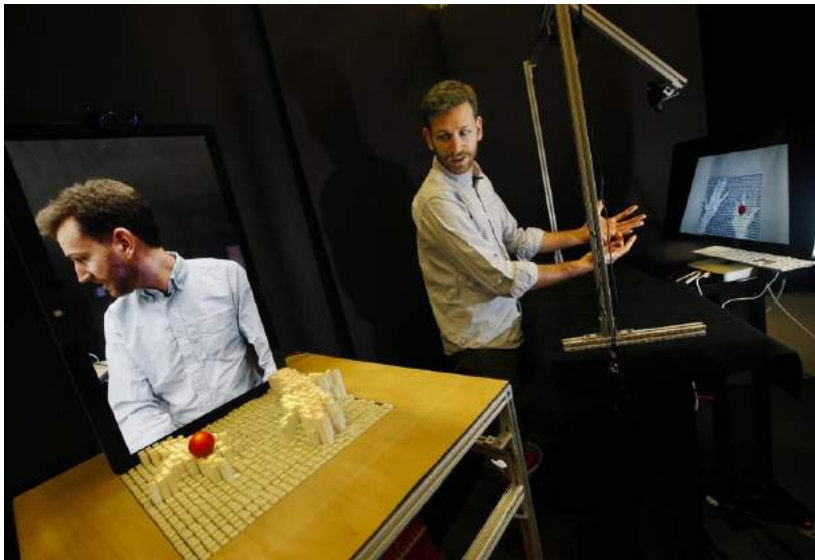
**New screens can interplay with different mediums**

# Case Study: inFORM



- Dynamic Shape Display: renders 3-D content physically, so users can interact with digital information in a tangible way
- Interacting with the ball digitally, through a physical representation

# Analysis: inFORM

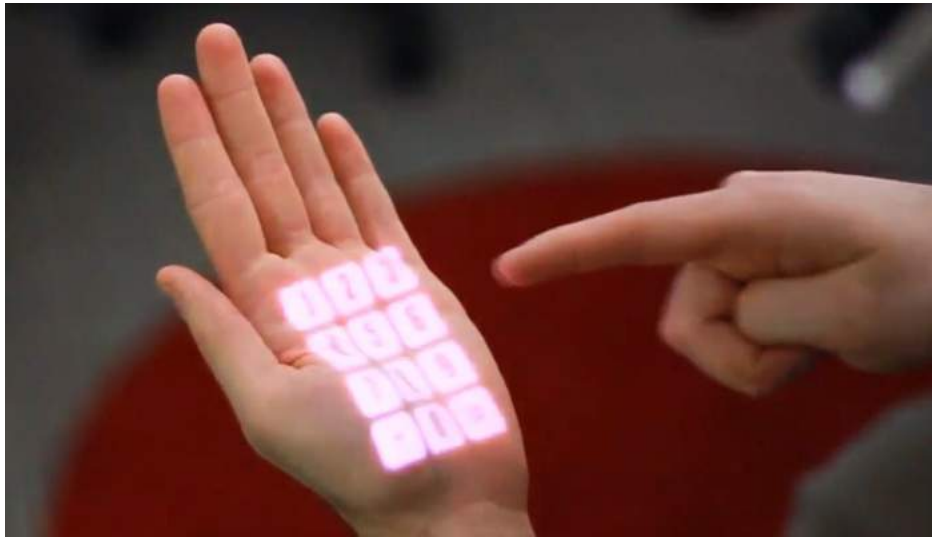


- The user is actively involved in the output
- Physical extension of self
- Creation of a new form of touch

**New screens can alter our environment, and  
changes our way of seeing it**

# Case Study:

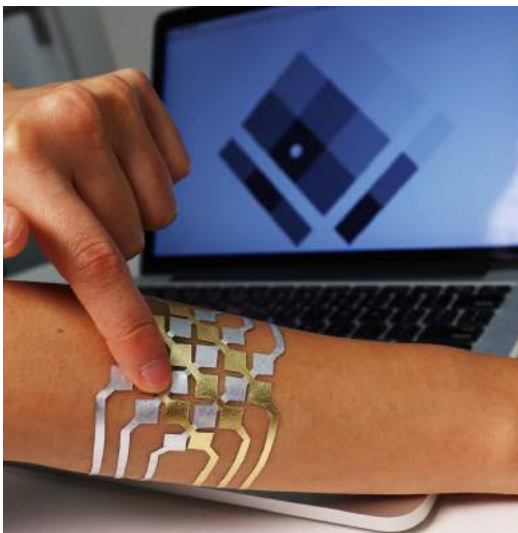
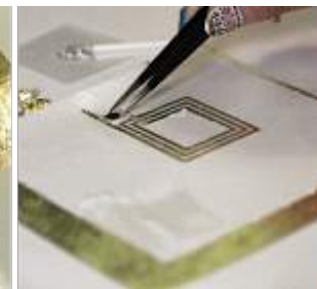
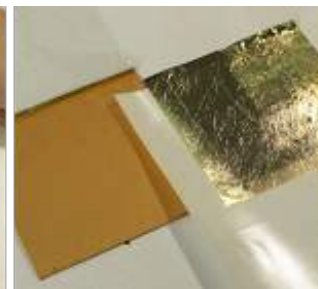
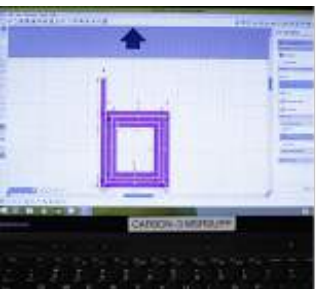
## Omnitouch



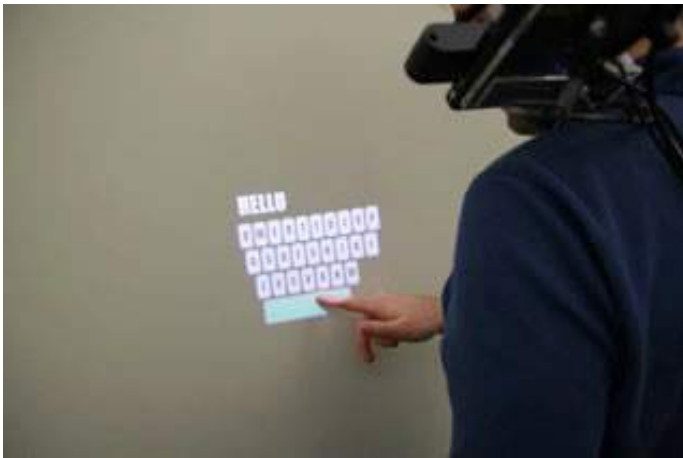
- The user is actively involved in the output
- Physical extension of self
- Creation of a new form of touch

# Case Study:

## DuoSkin



# Analysis: Omnitouch, Duoskin



- Alter our everyday surroundings
- User-friendly
- Duoskin: Aesthetically pleasing; Omnitouch: Intuitive, wider range (con)
- Customisable, logical purpose

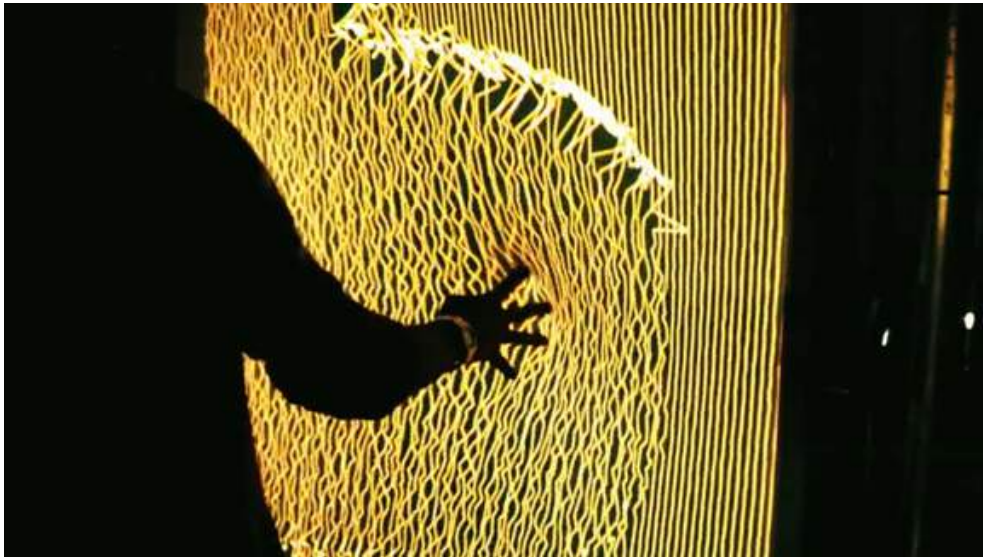
**New screens extends beyond the traditional visual medium, and has a physicality absent in traditional screens**

# Case Study: Firewall



- Depth-sensitive Installation
- Stretched piece of spandex interface that users can push into
- Output: fire-like visuals, played music
- Greater depth, louder, faster music

# Analysis: Firewall



- Literally interacting with the screen (touch, visuals, sound)
- Simple interface
- Less static, increasing relatability and interest in user

**New screens interplays with different textures, and  
user output is determinant on the audience's  
participation himself**

# Case Study:

## Microtonal Wall



- Interplay of Sound and the Image
- Each speaker plays a single microtonal frequency
- “...only from an infinite distance would we be equidistant to each speaker, though in that case they would also have zero volume...”  
- Tristan Perich

# Analysis:

## Microtonal Wall



- Juxtaposition of Sound and Screen
- From afar: an image  
Nearer: sounds override the image
- Audience participation and output dependent on user

# Altered our way of doing

- Involving other senses, changes our perception, or transposes gestures onto other familiar surfaces
- Utilises and combines the 'best of both worlds'
- Changes how we look at objects



# The New Future



- Opens up greater possibilities for user interaction
- Greater user engagement

# Conclusion

**New screens has the potential to drastically alter our perception and interaction, and changes the entire entity of the screen as simply a projected surface.**

The top of the slide features a decorative header. It includes a stylized illustration of a book with a dark cover and a gold spine, which has a circular emblem. This book is partially obscured by large, flowing, wavy lines in shades of gold and beige. The background of the slide is white, with a pattern of small, light grey dots in the bottom right corner.

# Thesis

Instead, it becomes an entity of its own standing, with its own purpose and meaning.”

# References

✓ Image references:

- ✓ <http://improve.adamguzman.net/wp-content/uploads/2015/12/Japanese-Screen-Painting.jpg>
- ✓ <http://www.austinchronicle.com/daily/screens/2015-01-09/looking-at-people-looking-at-art/>
- ✓ [http://thebarque.bsd405.org/files/2016/06/future\\_technology1.jpg](http://thebarque.bsd405.org/files/2016/06/future_technology1.jpg)

Text References:

- ✓ <https://books.google.com.sg/books?id=grinAwAAQBAJ&printsec=frontcover&dq=new+screens+media&hl=en&sa=X&ved=0ahUKEwjWh47C1OHPAhUTT48KHZEaB3l4ChDoAQhIMAg#v=onepage&q=surface&f=false>
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