

# Memory Follows Form Follows Function

UI, Memory, and Technical Constraint in Game Design

# UI design in games over time

- Information design
- Design theory & UI design
- Technical restraints/allowances and their influences on game design
- Retro game revival

# Design Theory – information design

Games requires information design

- It's about making sense
- What do you need to know
- Where can you find this information
- When do you need this information

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# SPOTONL

In de kleurrijke wereld van spelletjes voor kinderen!

## Index

Begonnen met Spelen?  
Spelen bij je favorieten  
Online Clips  
Grote Spellen  
Gsm Ringtones  
Liedjes  
Help Pagina  
Privacy  
Contact  
Chatten  
Mailinglist

## Nieuw

Schakels  
Kasseienhulp  
Snack Attack  
Silvester Skien  
Speedy Rescue  
Tom en Jerry  
Ig Manchen  
Milk fun  
Bingo Boogie  
Waaagelijktje  
Wauwbaas

## Populair

Lemmings  
Pinguin Staan  
Ice Hockey  
Drugsdealer  
Mc Serve  
Trampoline Springen  
Lunar Spelen  
Pizza Coercur  
Hooverman  
Karting  
Pingpong

## + Sinterklaas

Doe de piet na!  
Kinderzim  
Het Koninkhs  
Pakjes avond  
Pakjeskansen  
Papieren gezicht  
Peter Trainig  
Robojet  
Wies en wie!  
Zwarte Piet  
Meer Sinterklaas...

## Zoeken

Heb je een game kwijt?  
Zoek hier oog!

## Behendigheid

Aapjes  
Aqua Energieer  
Arkanoid  
Auto Ryden  
Bingo Boogie  
Courage  
Doolhof  
Game Scooter  
Hamburger Cookies  
Helicopter Spel  
Hijos verkoper  
Jonglezen  
Lemmings  
Pin Ball  
Scooby achtervolging  
Stakie  
Snack Attack  
Spongbob  
Tom en Jerry  
Waterband  
Moer

## Sport

Halleje Ooien  
Iren  
Golf  
Handbal  
Ice Hockey  
Kick Up  
Penalty Shootout  
Pingpong  
Pinguin Staan  
Rooftop Skater  
Sneek Boarden  
Silvester Skien  
Snow  
Snowbaasen  
Snel Balanceren  
Soccer Rally  
Surfen  
Trampoline Springen  
Timbal  
Watergevecht  
Meer Sport games...

## Vecht

Batman  
Santa Blitz  
Bot Brigade  
Cooptiva  
Dexter  
Mafia  
Radical Aces  
Scatball  
Samurai  
Superfighter  
Terroristen Ondergrond  
Xiao Xiao  
Meer Vecht games...

## Aventuur

Adventure Man  
Castel Car  
Duffy Duck  
Harriet Scram  
Hobbit  
Legs Bob  
Pacmen  
Pukpop  
Pizza Coercur  
Rock Board  
Steve the Sheriff  
Stein Man  
Trollen...

## Race

Auto Ryden  
Bobbaan  
City Racer  
Circuit Racer  
Hot Racer

# SPELE

[Actie](#)[Avontuur](#)[Behendigheid](#)[Puzzel](#)[Educatief](#)[Meiden](#)[Multiplayer](#)[Race](#)[Sport](#)[Meer](#)[Zoeken](#)

Save The Daddy



Soccer Tournament



Noob Saving Friends



Italian Brainrot Jigsaw



Donne's Spinning World



Chicken Scream Race



FRAGEN



Metro Escape



Tony Archer



Italian Brainrot: Neuro ...



Uphill Rush 13



Butterfly Kyodai Rainb...



Royal Garden Match



Obby On A Bike



Parkour Block 7



Bubble Game 3D



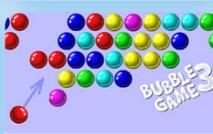
Block Crasher



Bubbel Game 3



Mahjong 4



Bubble Shooter



Run 3

The Original  
Rummikub®

Lingo



1 Tegen 1 Voetbal



Vuurjongen &amp; Waterme...



Mahjong Solitaire



Super Stapelaar 2



Among Us Online



Rummikub



Tetris



Mahjong Connect

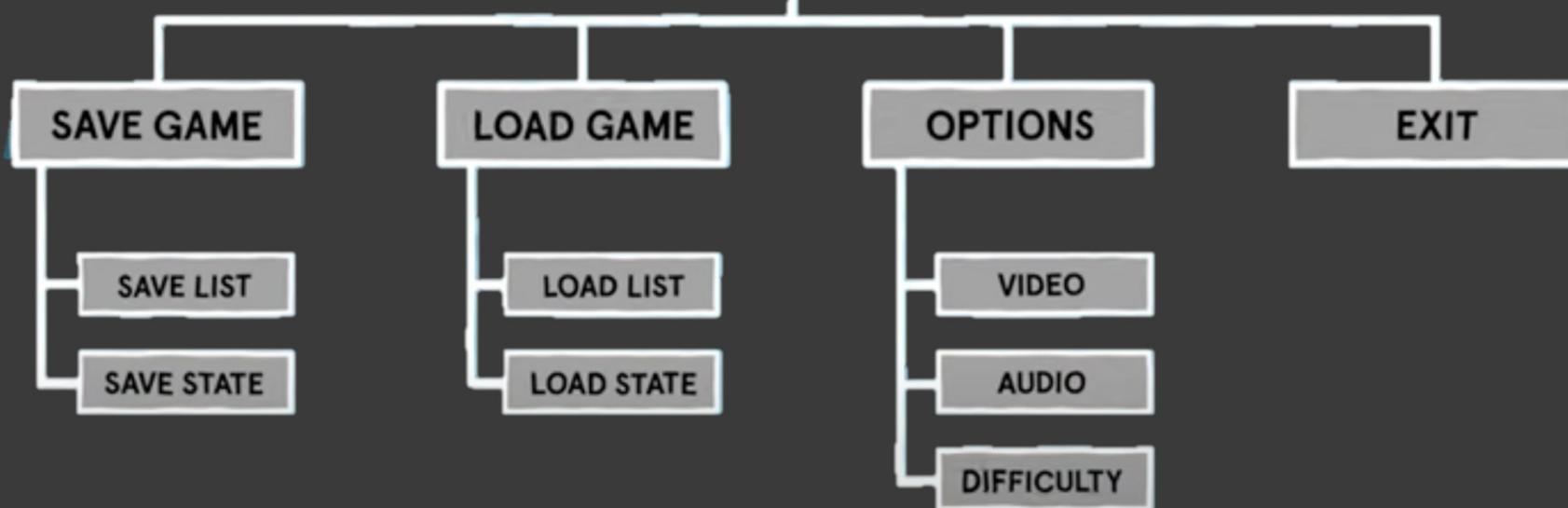


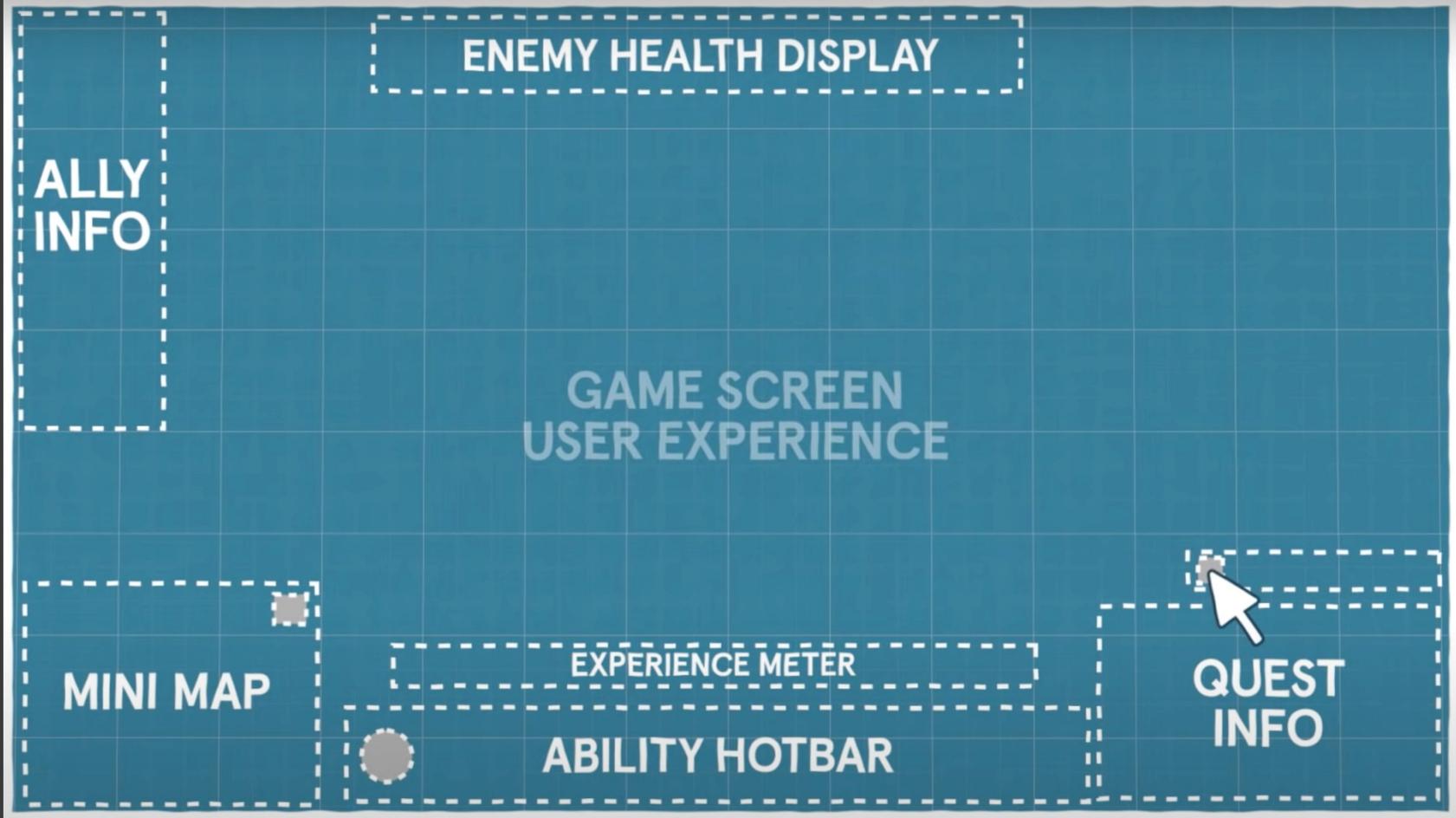
Fruit Connect



Bomberman 4

## PAUSE MENU





# Information design – UX design

- Hierarchy
- Flow
- Feedback loops

You're solving design problems so the player won't think about it





NEW GAME

 Continue

Credits









# What is important

- Flow
- Hierarchy
- Harmony and contrast
- Consistency

# Going back – hardware restraint as design

- Design is context
- Pixels
- Limited memory space
- Colour palettes & resolution constraints

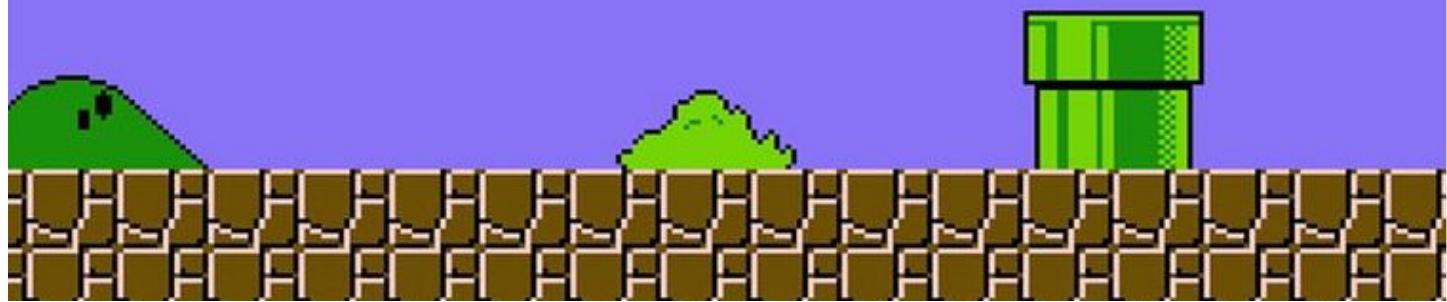
MARIO  
001300

0x01

WORLD  
1-1

TIME  
388

1000





# Revival as Recontextualization

- Use of “pixel art” as an aesthetic choice rather than a necessity.
- Modern engines mimicking old hardware limitations
- CRT filters, music chip emulation, low-poly revival.





\* i'm sans.  
\* sans the skeleton.



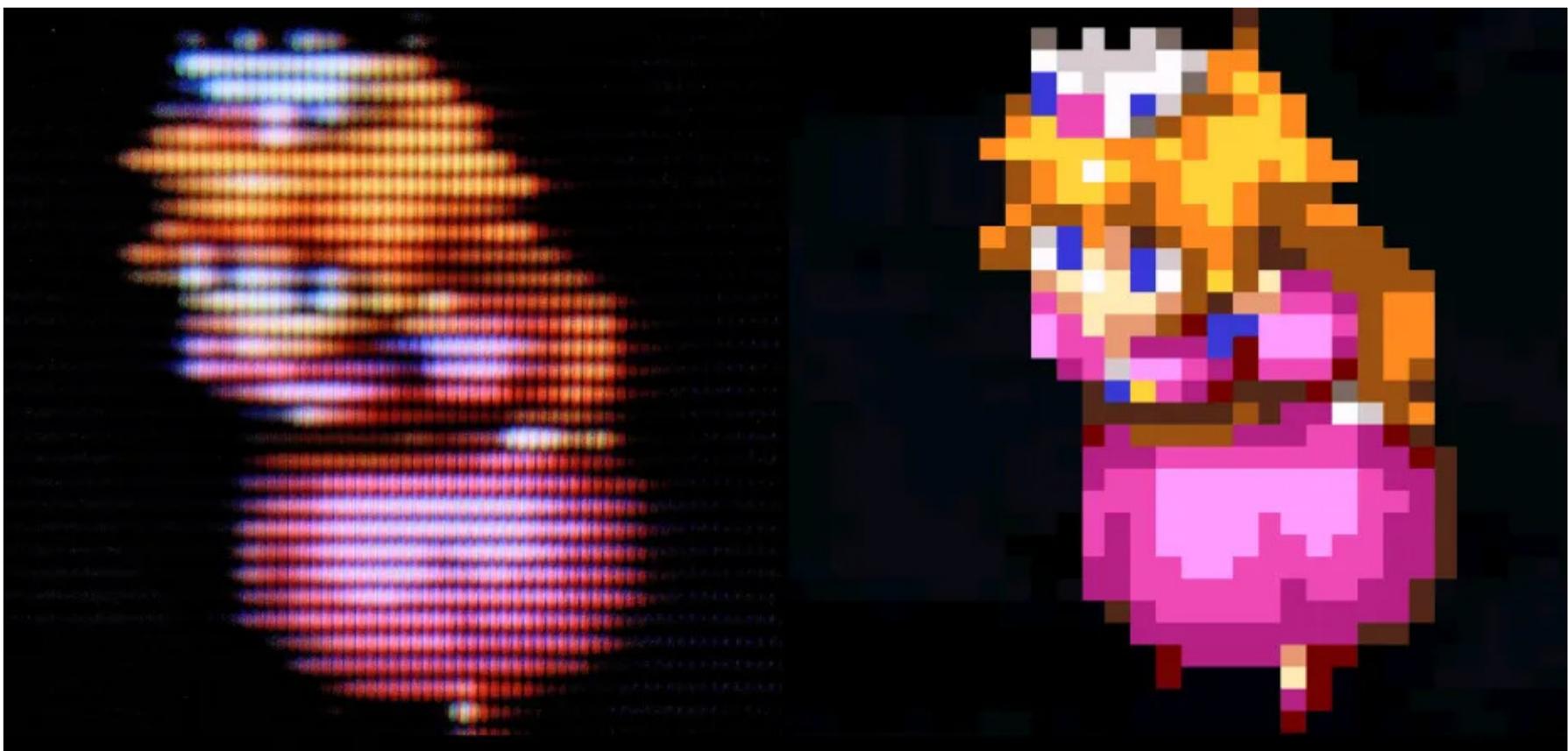




# CRT Screens and Game Feel

- Blur
- scanlines
- contrast





# Emulation and UX Dissonance

- Input latency, aspect ratios, broken UIs in HD
- Fidelity vs. authenticity dilemma
- Nostalgia





# In conclusion

- Play close attention as to what information has to be presented and how to present it
- Design is never neutral—it's always shaped by context, constraint, and intention
- When reviving old media, consider not just what it was, but how it *felt*

Thank you