

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



阿里旺旺 - 买卖有距离? 选择阿里旺旺沟通, 尽享购物乐趣!

立即下载



淘宝网 Taobao.com
阿里巴巴旗下网站

我要买 我要卖 我的淘宝 社区 交易安全 客服中心 开始全新搜索 搜索

您好, 欢迎来到淘宝! [免费注册] [登录] 阿里旺旺 支付宝 高级搜索 我的相册 广告服务

首页

淘宝集市

品牌商城

二手闲置

促销

全球购

手机数码

女人

男人

运动

家居

母婴

影视书籍

游戏

彩票

搜索宝贝

所有分类

搜索

[高级搜索] [使用帮助]

热门搜索: 男装 女装 手机 打底衫 魔兽世界 减肥 可爱风衣 冬装新品 围巾 连衣裙 Q币 时尚女包 牛仔裤 租房 美食

公告栏

更多>>

招募

淘宝网2008校园招聘
参与艾瑞调研赢万元现金大奖
淘宝招募代理商招募中
为你最喜欢的资讯投票啦

限时抢购 1元专区 爱心专区 收藏专区

秋冬杂志款鞋箱包 卡妹满20元送香港游
MM疯狂物品大搜罗 Cool全国美食吃个够
淘宝秋装全新大爆发 本季绝不能错过的鞋

和明星亲密接触 最热明星单品

明星单品 STARSHOP

有色透明VC裤

Joye 韩版和

key girl 心型

看专家教你培养健康宝宝

谁说男人不能秀腿 用手机装神弄鬼
大S曝秋冬靴超显瘦 韩国超人气辣宝贝

热点 从乳头颜色看你人生大运(图)
数码 18款必备品 营造绝对小资生活
生活 编到西藏 也逃不出爱情
时尚 宋慧乔全智贤出道照被公开(图)
潮流 甜酷角子家品 日系女生疯狂爱
娱乐 <宫>女主彩静可爱短款天使婚纱

免费注册

视频聊天

交易安全

支付宝

新手上路

淘宝集市

8000多万商品 80多万卖家 尽情淘宝

07秋装 最值得购买的单品

拥有你我的专属情侣对
让珍珠还你靓丽容颜!
今年绝不能错过的一双鞋
网友抢购了50元多色卫衣
双核的巅峰之作 IBM的王者!
快来淘宝抢手机送现金啦!
冲击波18期巨献, 清仓倒计时两天
时尚MM必备精品全搜罗
免费送的, 她最喜歡!
超值手机靓号任你淘

品牌商城

100%认证商家 开心放心买

★台湾馆 魅力穿搭秀
★07秋冬最新款IT Bag
★超显瘦人气穿搭推荐
★60家正宗老字号店铺

魅力穿搭
人气款

07秋冬杂志款穿搭指南
名牌床品限时抢购中
白领mm的最爱
秋季最新款鞋箱包
超cool品牌男装2折
正品大牌护肤品特

二手闲置

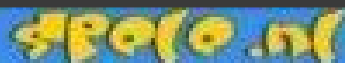
淘宝跳蚤市场 便宜买到底

库存原装耳机 热销温泉门票 本季热销
1折清仓甩 2折还债上门 流行经典LV
先看评价再看价超多好评T43
快来看看售出800件的数码相机
买二手数码1元换购送大礼
抢拍-保真清代外销瓷无底价
买漂亮只要2折还债上门
定制件《色戒》电影票9元卖

购满20元送香港免费游

最新成交

07秋冬新款 J1 专柜热卖款
平铺休闲西装(附带专柜手
99.0
【进口洁具, 行家首选】
美标橙色威利水龙头 向爱
188.0
大高兴的食品店 0.0 官网
推荐羊羔绒外套 米黄
188.0
1 开心价一元大拍卖 06
年下关 8 5 3 青饼(单片)
41.00



je leukste online games van Nederland

Index

Beginnen met Spelo.nl
Spelo.nl bij je favorieten
Online Clips
Gratis Spellen
Gam Ringtones
Leden
Help Pagina
Privacy
Contact
Chatten
Mailinglist

Nieuw

Seahawk
Kanoncrash
Snack Attack
Silverstar Skien
Speedy Rescue
Tom en Jerry
Iq Marathon
Milk Run
Bravo Boogie
Watergevecht
Wuuuhave

Populair

Lemmings
Pinguin Slaan
Ice Hockey
Drugsdealer
Mr Serve
Trampoline Springen
Leraar Spelen
Pizza Coureur
Bombberman
Karting
Pingpong

+ Sinterklaas

Doe de piet na
Kinderen
Het Konink
Pakjes avond
Pakjeskamer
Papomaten gooien
Pieten Training
RoboPiet
Wens en win
Zwarte Piet
Meer Sint games...

Zoeken

Bec je een game kwijt?

Zoek hem op:

Behoudigheid

Apples
Aqua Energiër
Arkanoid
Auto Rijden
Bravo Boogie
Courage
Doolhof
Game Scooter
Hamburger Gooien
Helicopter Spel
Ijssje verkoper
Jongleren
Lemmings
Pin Ball
Scooby achtervolging
Stake
Snack Attack
Spongchob
Tom en Jerry
Waterband
Meer

Sport

Balletje Gooien
Dins
Golf
Handbal
Ice Hockey
Kick Up
Penalty Shootout
Pingpong
Pinguin Slaan
Rolling Skater
Skate Boarden
Silverstar Skien
Sleer
Snowboarden
Snel Blijven
Snowie Rally
Surfen
Trampoline Springen
Turfball
Watergevecht
Meer Sport games...

Vecht

Banman
Battle Blitz
Bot Brigade
Capoeira
Dexter
Matrix
Radical Aces
Seahawk
Samurai
Superfighter
Tennistegen Oorlog
Xiao Xiao
Meer Vecht games...

Avontuur

Adventure Man
Castel Car
Duffy Duck
Harris Scam
Habitat
Legn Bob
Pacman
Pinkpop
Pizza Coureur
Rode Baard
Save the Sheriff
Skate Man
Cockroach

Race

Auto Rijden
Bobbleman
City Racer
Cornetti Race
Hot Racer

SPELE

Actie

Avontuur

Behendigheid

Puzzel

Educatief

Meiden

Multiplayer

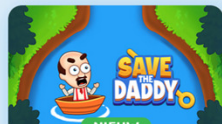
Race

Sport

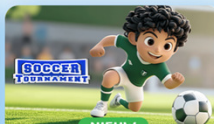
Meer



Zoeken



Save The Daddy



Soccer Tournament



Noob Saving Friends



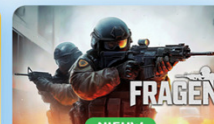
Italian Brainrot Jigsaw



Donne's Spinning World



Chicken Scream Race



FRAGEN



Metro Escape



Tony Archer



Italian Brainrot: Neuro ...



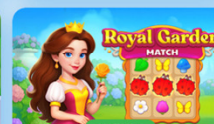
Uphill Rush 13



Butterfly Kyodai Rainb...



Butterfly Kyodai Rainbow



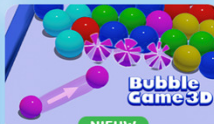
Royal Garden Match



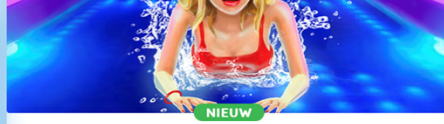
Obby On A Bike



Parkour Block 7



Bubble Shooter 3D



Uphill Rush 13



Block Crasher



Bubble Shooter 3



Mahjong 4



Bubble Shooter



Run 3



Rummikub



Lingo



1 Tegen 1 Voetbal



Vuurjongen & Waterme...



Mahjongg Solitaire



Super Stapelaar 2



Among Us Online



Rummikub



Lingo



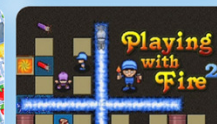
1 Tegen 1 Voetbal



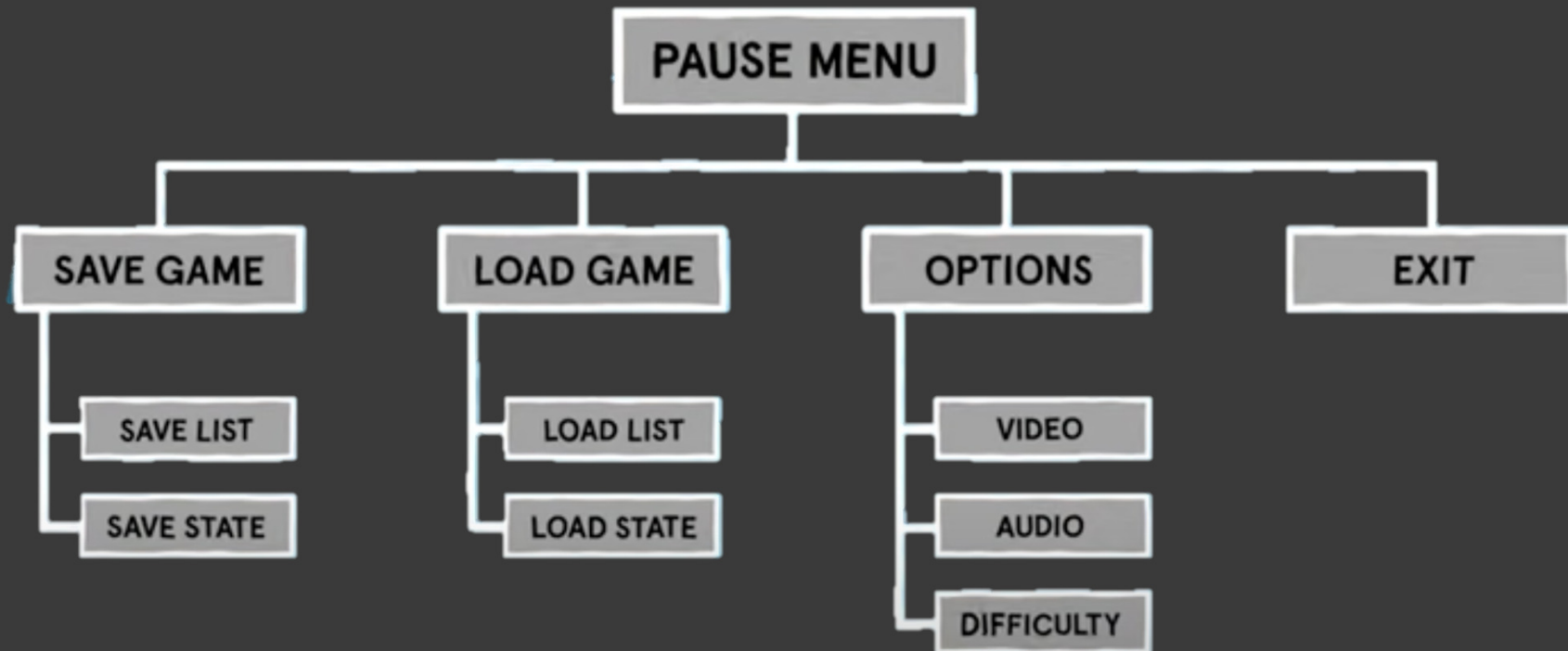
Mahjong Connect

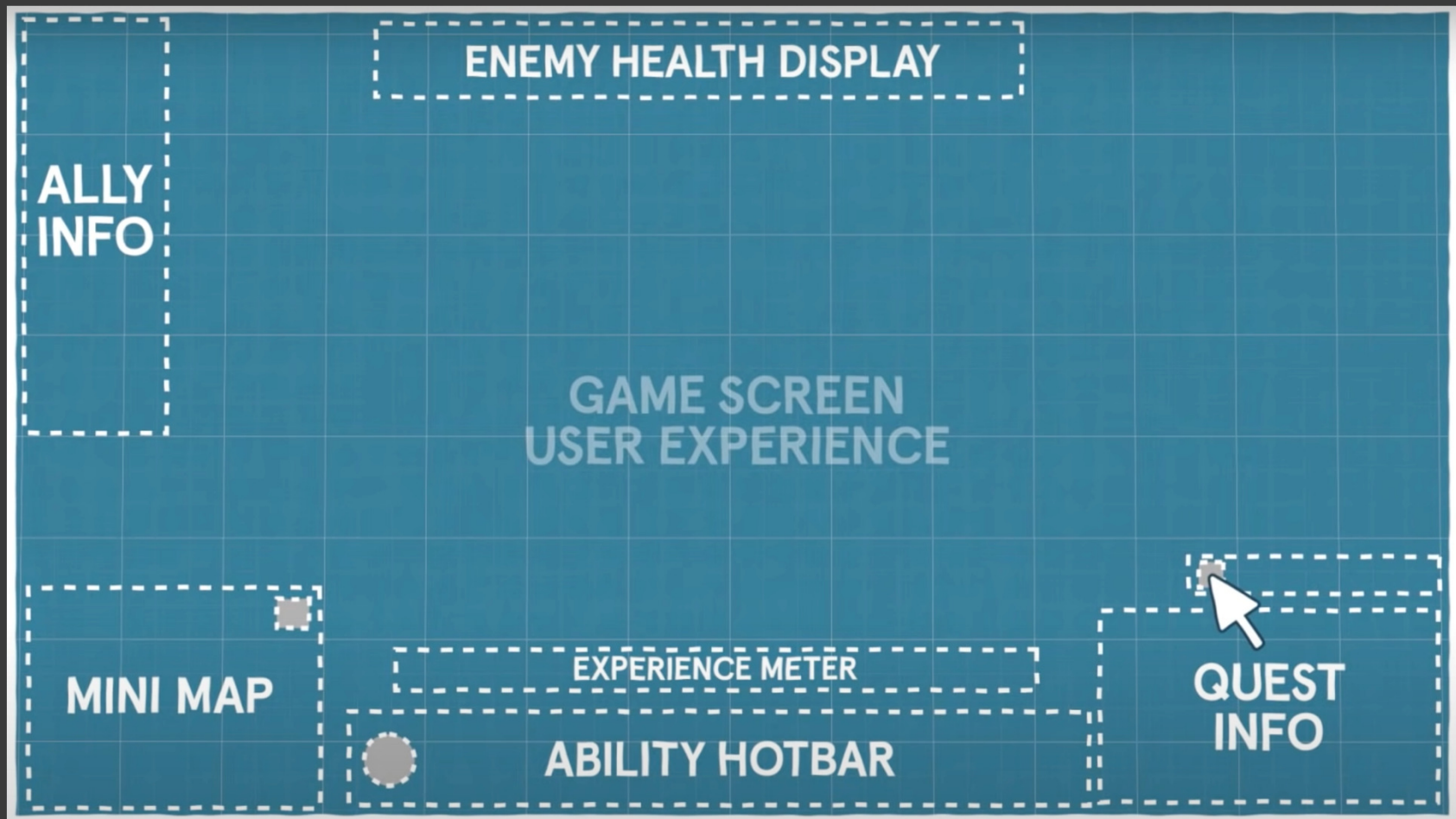


Fruit Connect



Playing with Fire 2





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

KILLZONE™ SHADOW FALL

1. Campaign 2. Multiplayer 3. Co-op 4. Clans 5. About

ONLINE FRIENDS

0 1 Done

2. Campaign

3. SECTION 21

CHAPTER 2

4. The Shadow

5. Continue Campaign

Select chapter



6. 21 Clean This Up

After a prisoner swap for a captured Helghost agent, Kellan proceeds to VSA HQ to resume his role as a Shadow Marshall.

1/1 4/4 2/2 2/2



INSURGENT EXPANSION REQUIRED

Elite Mode

A Challenging new way to play Killzone™ Shadow Fall
3 LIVES only on HARD difficulty.

Please purchase the INSURGENT EXPANSION, or the SEASON PASS to play Elite Mode, as well as a new multiplayer class and much more.

[Go to PlayStation®Store](#)

Friends Options

Select

Healh	152/152	Major Skills	
Magicka	63/63	Long Blade	77
Fatigue	284/289	Block	54
Level	22	Mercantile	54
Race	Imperial	Light Armor	50
Class	Rogue2	Athletics	61
Strength	99	Minor Skills	
Intelligence	63	Medium Armor	53
Willpower	35	Speechcraft	41
Agility	79	Illusion	50
Speed	83	Acrobatics	24
Endurance	76	Bneak	37
Personality	105	Misc Skills	
Luck	40	Armorer	15

Dagon Fel



Daedric Katana

331/495

All
Weapon
Apparel
Magic
Misc



Armor: 65

<div style="display: flex; justify-content: space-around;"> 2 1 1 1 1 1 1 1 1 1 </div>									
<div style="display: flex; justify-content: space-around;"> 4 1 2 1 1 1 1 1 1 1 </div>									
<div style="display: flex; justify-content: space-around;"> 2 1 4 1 1 1 1 1 1 1 </div>									
<div style="display: flex; justify-content: space-around;"> 2 1 10 1 1 1 1 1 1 1 </div>									

99

Amulet of Far Silence	1/150
Amulet of Mighty Blows	1/95
Amulet of Recall	14/90
Amulet of Resor	1/30
Amulet of Shadows	1/1200
Amulet of Stamina	1/5
Belt of the Armor of God	1/375
Dreugh Shield	21/30
Founder's Belt	30/185
Frostcater Robe	127/775
Hawkshaw Ring	1/25
Julecdaw Feather Ring	1/125
Lifestone	1/95
Open Anything	1/100
Restore 50 Health	9/100
Ring of Aversion	1/50
Ring of Fireball	1/45





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

100 × 01

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.



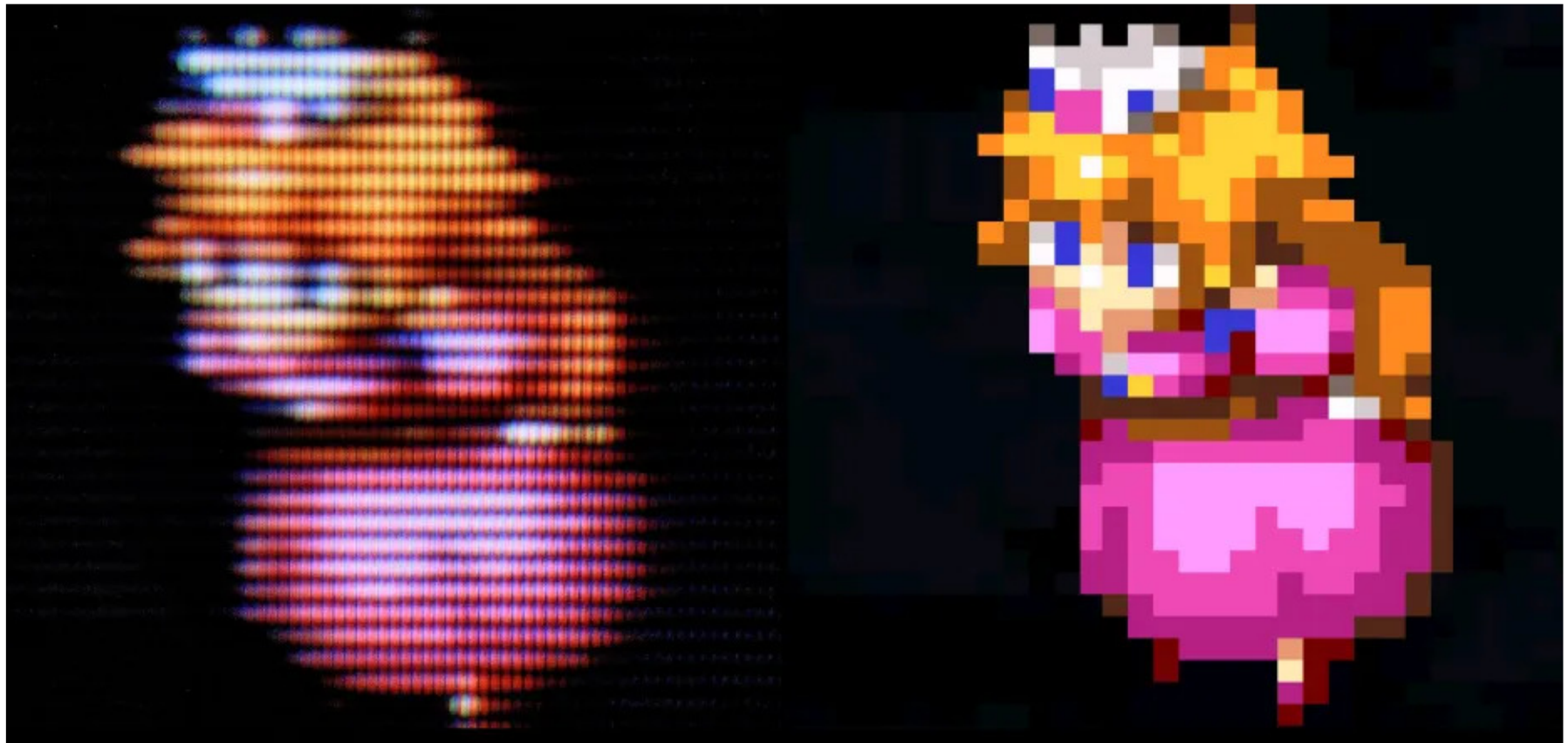




CRT Screens and Game Feel

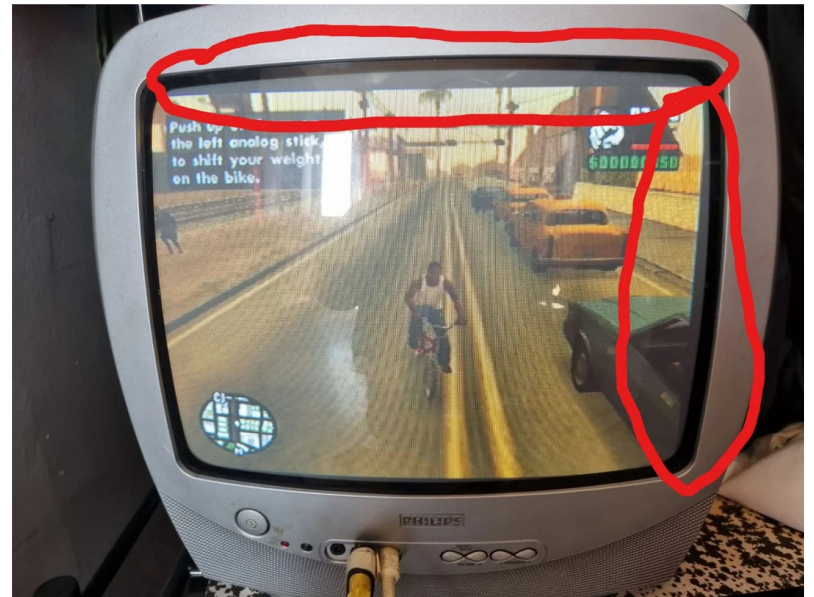
- Blur
- scanlines
- contrast





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