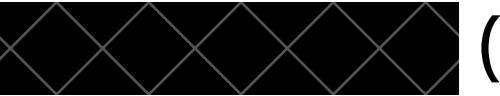




GROUP MEMBERS

- 1: Sasaporn Tachasahapattana  (Wawa)
- 2: Praewa Paecharoen  (Praewa)
- 3: Bhirada Yongpiyanon  (Lina)
- 4: Phanyapond Chaipibal  (Yin)
- 5: Treechawa Kongpathomporn  (Cheetah)

PART I: THEORIES AND CONCEPTS

CAN THE HUMAN-CENTERED DESIGN (HCD) AS PROPOSED BY DON NORMAN BE APPLIED TO SERVICE DESIGNS?

- Human-Centered Design (HCD)— an approach that puts human needs, capabilities, and behavior first, then designs to accommodate those needs, capabilities, and ways of behaving.
- Service Designs – the design approach that focuses on managing business resources (people, props, processes) in order to improve employee's experience and performances and ultimately enhance customer's experience.
- Experience—determines how fondly people remember their interactions. Cognition and emotion are tightly intertwined, which means that the designers must design with both in mind.



CAN THE HUMAN-CENTERED DESIGN (HCD) AS PROPOSED BY DON NORMAN BE APPLIED TO SERVICE DESIGNS?

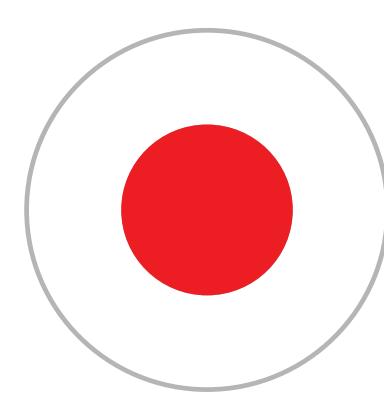
- It's not just designing a product but HCD is designing the whole experience to satisfy users (in this case customers), which service design is part of the system.
- HCD : explore the whole journey of user's experience with the design > when we know the pain point > improve service design (backstage) to meet the satisfaction of customers
- Applying HCD to service design means to deeply understand the user's experiences and designing the service in both onstage and backstage that include all components—people, props, processes. It is to make the design that offers service and value customer's positive experience from the first interaction with the business to the ending process. By treating the design as a systems which should be carefully planned from backstage to front stage considering customer as a main stakeholder.

PART 2:

#10

**The Comparison between
two subway stations using
Norman's key design
parameters**





JAPANESE SUBWAY STATION



AFFORDANCES

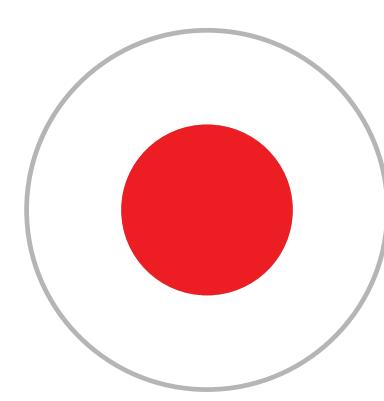
- Accurate mapping of controls and directional cues of train routes and exits.
 - architecture design
 - Ticket gates & card reader
- Real time train schedule monitor
- Safety measures
 - platform screen doors that only open when the train comes to prevent accidents.
- Information desk in the station with employees inside



SIGNIFIERS

- Signs on the floor and ceiling guiding where to go
- boarding queue
- Distinct line colors for each train line in map, screen, exits
- Screen above doors informing where the train is heading, how many stations ahead and its current status
- Reserved seats in the train for vulnerable passengers
- Employee's uniform





JAPANESE SUBWAY STATION



CONSTRAINTS

- Increase capacity to manage flows of passengers during rush hours
- Limited solutions on sexual harassment prevention
- Not 24/7 station
 - some missed the train and had to sleep at the station
- Platform doors increase safety but reduce flexibility for large crowds

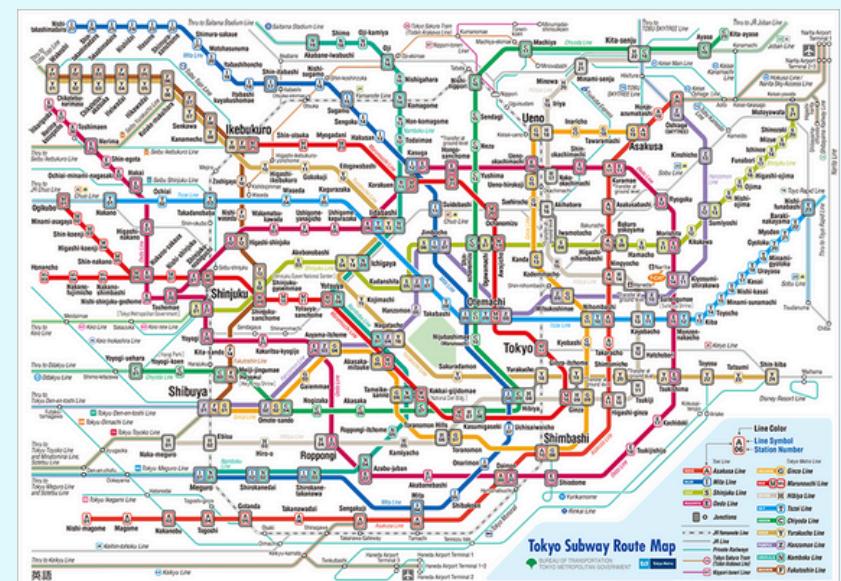


MAPPINGS

- Clear mapping and accessibility of the map in every platform
- Well planned structure of each stations
- Color coding of each train lines and visible on the physical train itself

FEEDBACKS

- The immediate announcement when the train is delayed
- Ticket gates provide immediate audio and visual feedback for success/failure in tapping card
- Real waiting time change in station monitor





NEW YORK SUBWAY STATION



AFFORDANCES

- The 24/7 operations increased accessibility and convenience
- Clear signage and distinct subway entrances with familiar symbols indicate where one can enter or exit.
- Turnstiles and fare gates afford the action of paying or validating access.
- MetroCard machines have large touchscreens, affording multiple payment options



CONSTRAINTS

- No screen doors
 - flexible but less safe (people can stand anywhere on the platform)
- Limited space and clearance can easily cause bottlenecks situation
- Noise, wastes and air quality issues that affect the station environment and hygiene

Subway SIGNIFIERS



- Historical decorative elements, like beaver plaques at Astor Place, served as early station identity signifiers for those who couldn't read.
- The iconic Helvetica typography and elegant design of subway signs serve as visual guides for users through the complex system.

MAPPINGS

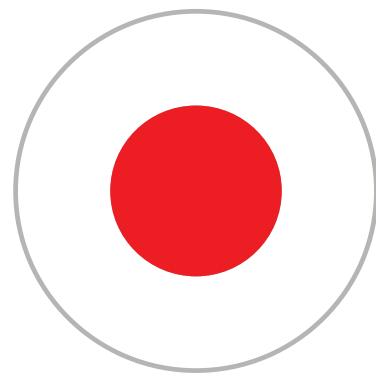
- The New York subway map integrates city streets and landmarks near subway stations, aiming to incline users to understand geographic placement alongside routes
- Well planned map that is easy to understand with distinct color that integrates city map and directions



Subway

FEEDBACKS

- Digital countdown clock on station monitor give real-time feedback
- Turnstile's spins after the card tapping was validated
- When you tap the card on the gate sensor and the green arrow lights up+beep sound+gate physically open



COMPARISON



AFFORDANCES

Tokyo— emphasizes safety and controlled flow

New York— emphasizes accessibility and constant availability

SIGNIFIERS

Tokyo— focuses on systematic clarity

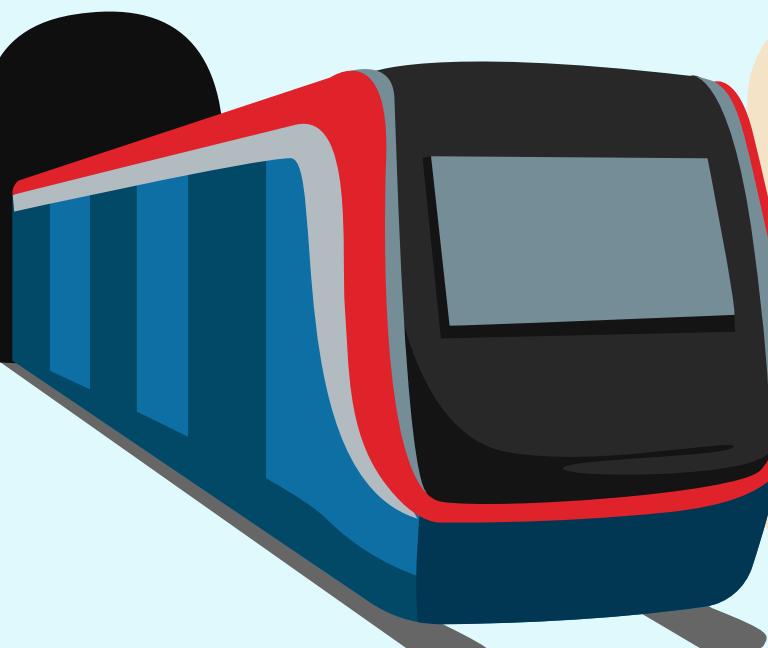
New York— focuses on iconic, cultural, and design-based signifiers for navigation and identity.

CONSTRAINTS

Tokyo – system
(not really flexible, limiting operating hours, severe overcrowding)

New York— Infrastructure and external factors
(Non-stop operation, environmental issues, safety concerns)

MAPPINGS



Tokyo— Shows internal layout of train routes

New York— Same as that of Tokyo, but includes city geography

FEEDBACKS

Tokyo— feedback is clear and consistent
—ticket gates beep, flash green or red, and even show the remaining balance

New York— MetroCard swipes often fail with only a vague “Please Swipe Again,” leaving riders uncertain.



PART 3: #X

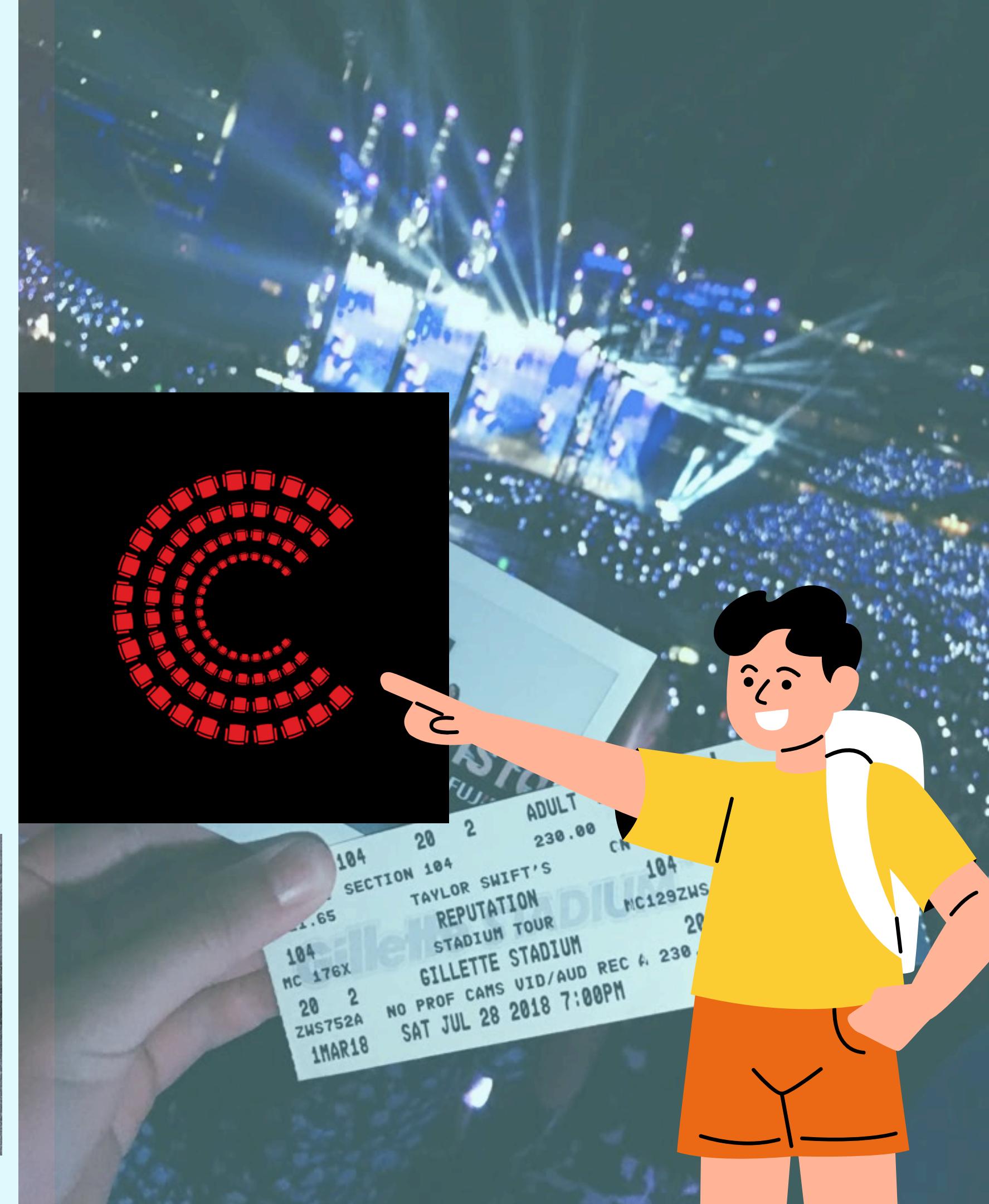
THE FAILURE OF MOBILE APP (THE CONCERT)



CHOOSE A MOBILE APP (MOBILE PHONE'S APPLICATION) THAT ALREADY EXISTS, THAT WHICH YOUR TEAM THINKS IT FAILS OR IS FUNCTIONALLY POOR; THEN, CRITIQUE IT USING NORMAN'S KEY DESIGN PARAMETERS.

REASONS :

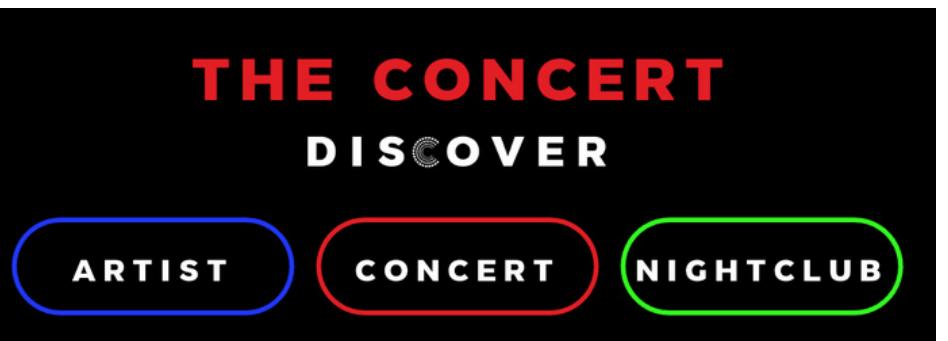
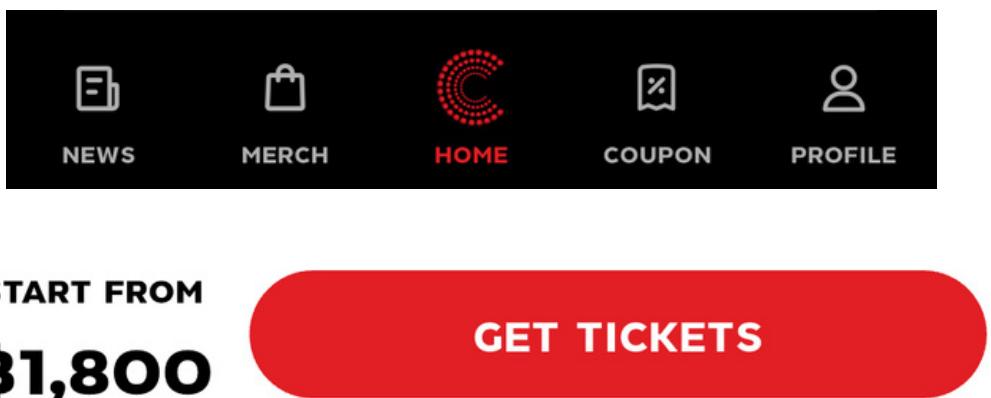
- Vulnerable to ticket bots
- Easy for scammers to fraud
- Unstable (especially when lots of user attempt to buy tickets)
- Difficulty in refunding



CRITIQUE IN TERMS OF NORMAN'S KEY DESIGN PARAMETERS

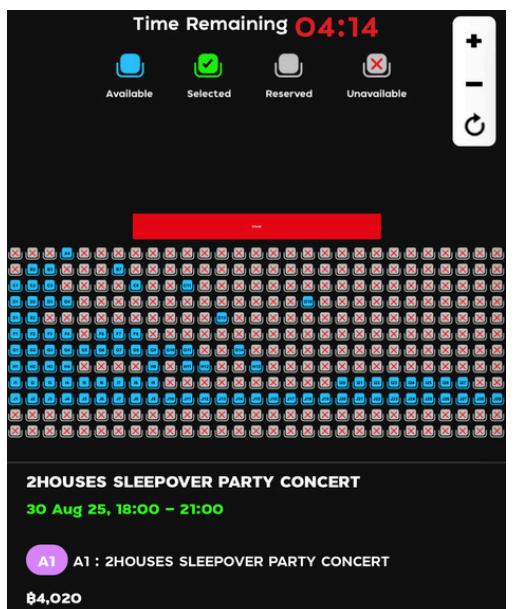
Affordances: Ordinary concert website, easy to use (majority of users know how to use the app)

Signifiers : Clear directions, straightforward icons



The bot problem :

- Speed advantage: Bots use scripts to instantly click "Buy" or "Reserve" before humans can.
- Unintended affordances: predictable URLs, or poorly protected "Add to Cart" buttons afford automation for bots.
- Constraint failure: If there are no effective constraints, bots can overwhelm the system.



CRITIQUE IN TERMS OF NORMAN'S KEY DESIGN PARAMETERS

Constraints : Bot protection programme is required.
It might unintentionally impact human users.

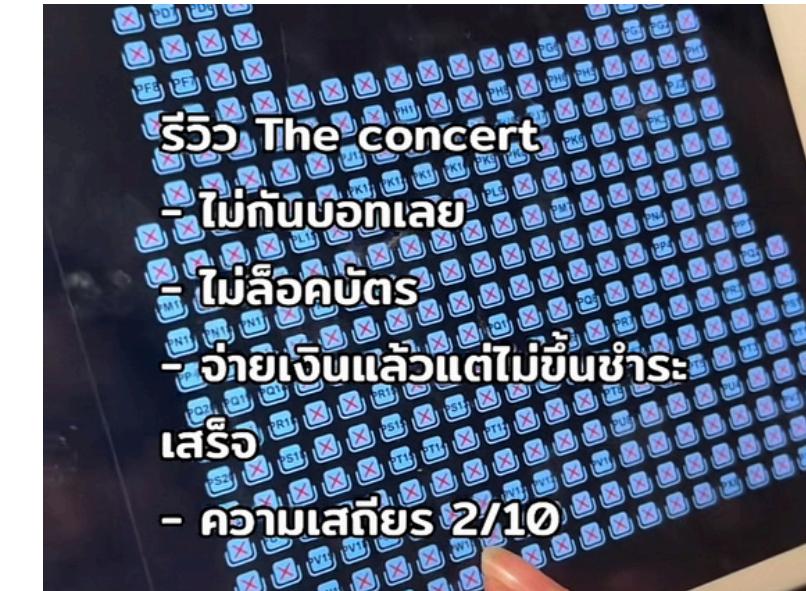
Mappings : Humans follow visible mapping → slower.
Bots exploit hidden mapping → faster access.

Feedbacks : (Human)Seat icon changes color to grey/red indicating that the seat is already occupied

(Bot)Bots grabbed the seat milliseconds before: humans get frustrated rejection messages.

PP泰国现票3.8&3.9					
日期	票面	区域	排数	座位号	备注
下单转赠					
3.8	10000票面	A1	H排	X	二连
3.8	10000票面	A1	H排	X	14200
3.8	7000票面	B4	A排	1X	单机
3.8	7000票面	B4	H排	X	单机
3.8	7000票面	B4	K排	1X	单机
3.8	7000票面	B4	P排	X	单机
3.8	6500票面	C4	Q排	X	单机
3.8	6500票面	C4	L排	X	单机
3.9	7000票面	B4	H排	X	近舞台5个内
3.9	7000票面	B3	L排	X	单机
3.9	7000票面	B4	C4		7000
3.9	7000票面	B4	NX		7000
3.9	7000票面	B2	C1X		7000
3.9	7000票面	B2	D1X		7000
3.9	7000票面	B3	MX		7000
3.9	7000票面	B4	A1X		7000
3.9	7000票面	B4	D1X		7000
3.9	7000票面	B4	D1X		7000
3.9	7000票面	B4	DX		7000
3.9	7000票面	B4	E1X		7000
3.9	7000票面	B4	EX (小舞台第一排,5内)		7000
3.9	7000票面	B4	GX (3内)		7000
3.9	7000票面	B4	H1X		7000
3.9	7000票面	B4	J1X		7000
3.9	7000票面	B4	NX		7000
3.9	7000票面	B4	P1X		7000
3.9	7000票面	B4	PX		7000

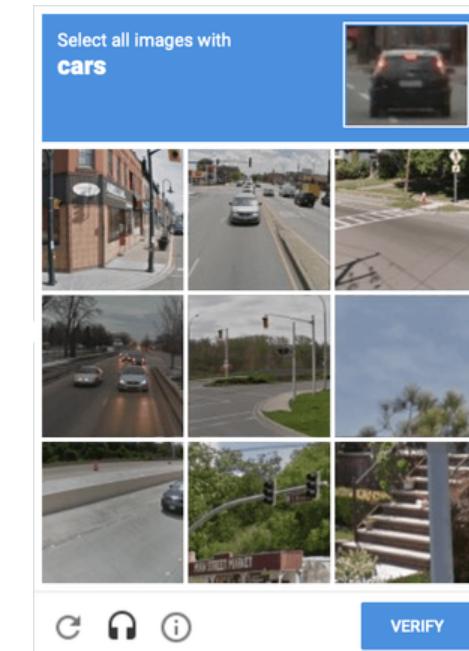
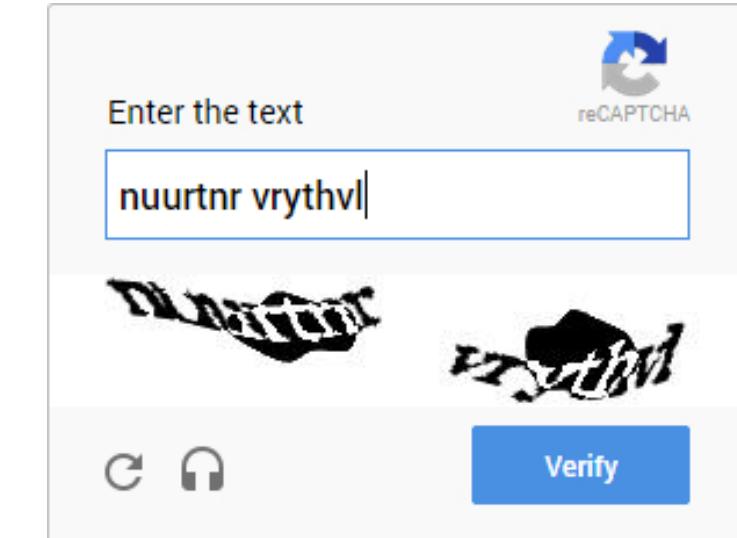
#PPKritMyPleasureConcert)))



RECOMENDATIONS

Elementary bot screening software

- Case study from another concert ticket application
(Uses certain type of question to verify human)



ID verification

- Prevent Impersonation
 - 1 ID Card per Limited tickets purchase
 - ID check before receiving wristbands to access the event venue (= booking and name on ID card must be the same, or else a letter of consent / power of attorney is required)

