

Lancaster University College  
at Beijing Jiaotong University



CNSCC.202: HCI

# TASK-5

Haotian

Sang

Chenhui

Mao

Yuekai

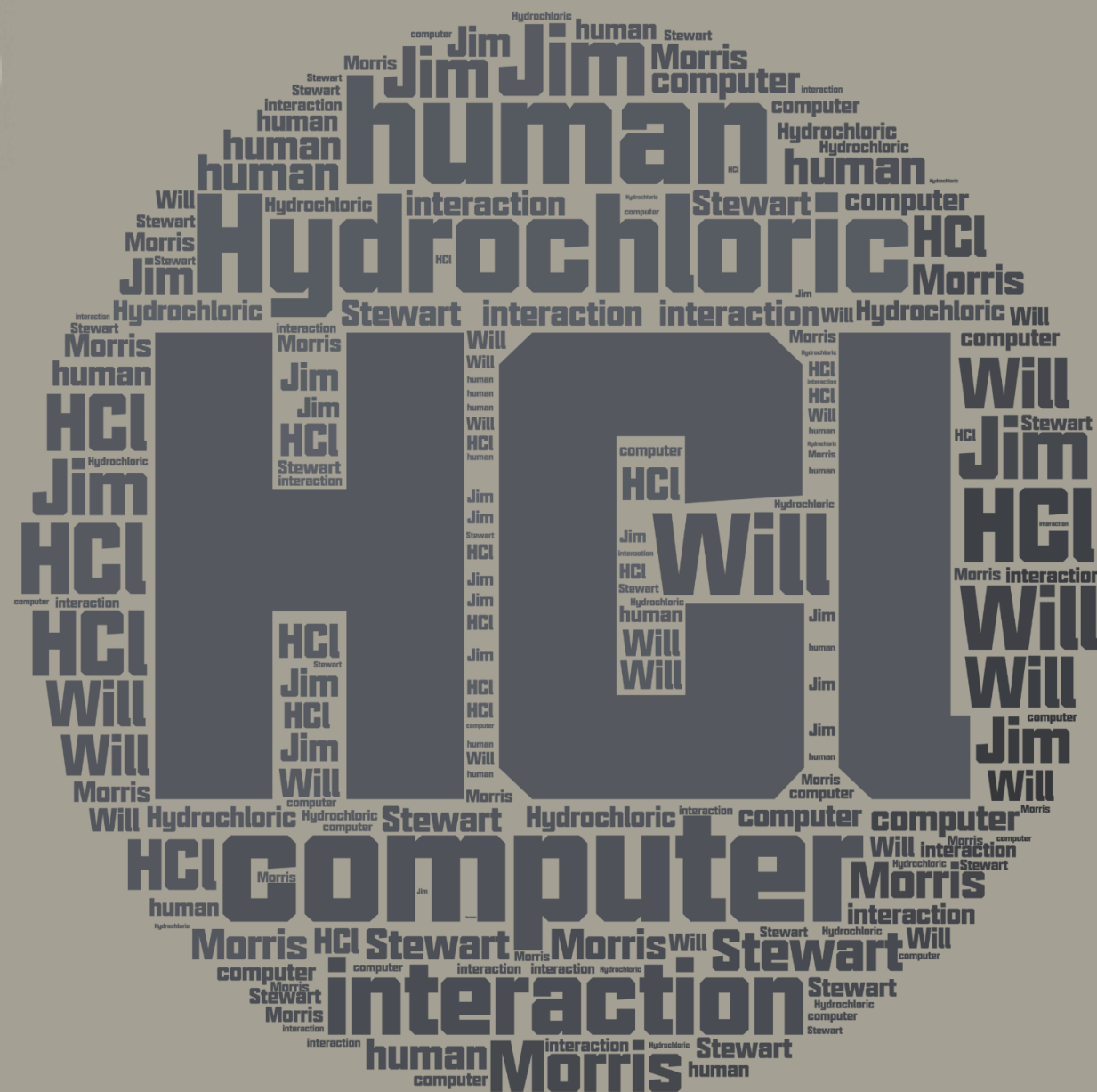
Yin

Xiao

Xie

Zhuohua

Qi



Final Result





# Advantages

## 1. *Predictability*

Button placement satisfied users' thinking pattern.

- **Place of departure and destination**
- Date of departure
- Filters (e.g. student tickets only)
- Search
- Choose one period to buy
- Select Passenger
- Pay



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北京

↔

上海

出发日期

5月5日

周日

只看高铁/动车 ☐

学生票 ☐

兑换车次 ☐

查询车票

北京--上海

清除历史



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The screenshot shows a train ticket booking interface. At the top, it displays the route from 青岛北 (Qingdao North) to 威海 (Weihai) via train C6553, with a duration of 1小时49分钟 (1 hour 49 minutes). The departure time is 07:08 and the arrival time is 08:57. Below this, there are three options for ticket class: 一等 (First Class) for ¥90, 二等 (Second Class) for ¥56 (highlighted with a blue background), and 无座 (No Seat) for ¥56. Further down, there are two buttons: 选择乘客 (Select Passenger) and 选择受让人 (Select Beneficiary), both with a plus icon. The 选择乘客 button is highlighted with a red border. At the bottom, there is a large blue button labeled 提交订单 (Submit Order).



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- **Pay**

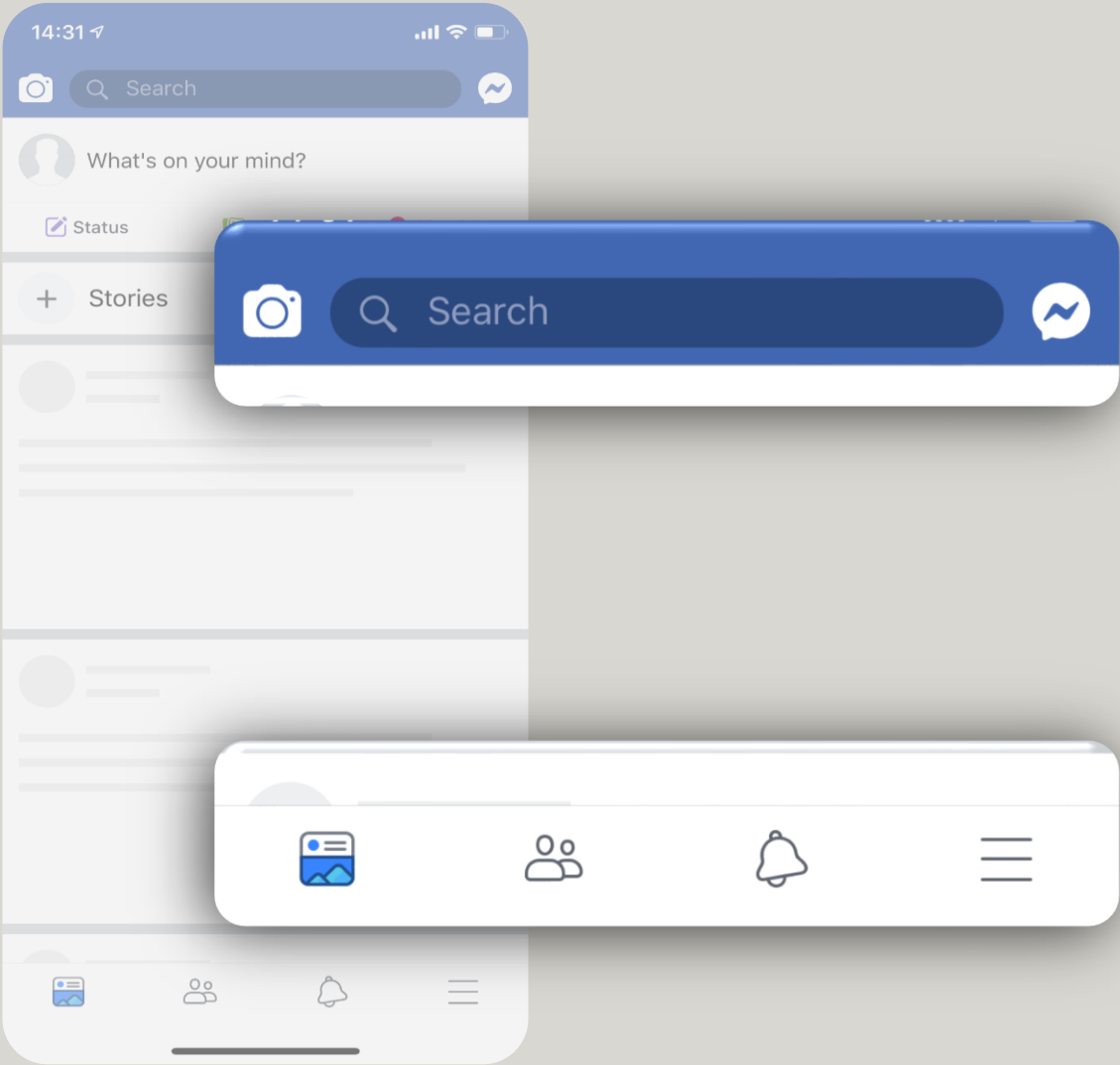
The screenshot displays a train booking interface for route C6553 from Qingdao North (青岛北) to Weihai (威海). The departure time is 07:08 and the arrival time is 08:57, with a duration of 1 hour and 49 minutes. Three ticket classes are shown: First Class (一等) for ¥90, Second Class (二等) for ¥56 (highlighted with a blue button), and No Seat (无座) for ¥56. Below the class selection, there are options for 'Adult Ticket' (成人票) and 'Second Class' (二等), along with a trash icon. Two buttons are present: 'Select Passenger' (+ 选择乘客) and 'Select Beneficiary' (+ 选择受让人). A 'Seat Selection Service' (选座服务) link with a right arrow is also visible. At the bottom, a large blue button labeled 'Submit Order' (提交订单) is highlighted with a red rectangular border.



# Advantages

## 2. *Familiarity & Strive for Consistency*

Have **similar layout** as other frequent used software such as WeChat, FACEBOOK...





## Advantages

### 3. *Familiarity & Strive for Consistency*

Similar operation logic between similar function.

e.g. Reserve for meal & Late query

China Telecom 4G 59% 19:42

< 正晚点查询

到达 出发

车 站 请输入选择车站

车 次 请输入车次

查询

China Telecom 4G 59% 19:43

< 餐饮·特产

乘车日期 2019年04月22日

出发车次 输入车次

查询

餐饮·特产服务现已正式上线，现提供部分列车在线预订服务，后续将为广大旅客提供更多车次的餐饮·特产服务。



## Advantages

4. *Dialog Initiative/System Pre-empt*  
Provide **prompt**, if emergence happened.
5. *Dialog Initiative/User Pre-empt*  
User can use late query for **getting rail way information**.

### 温馨提示

您选择的方案需要在 徐州东 换乘，  
两车间隔时间为 1小时23分钟，请您  
充分考虑各种影响换乘的因素，并自  
愿承担因自身或第三方等原因导致延  
误换乘的风险。

取消

确定



正晚点



温馨服务



铁路e卡通



餐饮·特产



中铁手机卡

送餐饮

# Advantages

## 6. *Observability defaults*

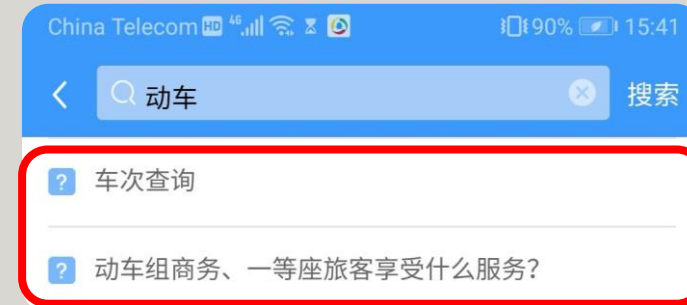
While querying, system will **suggest possible words** based on user's input.

## 7. *Responsiveness*

**Stable response** time as user clicking on every button.

## 8. *Reduce short-term memory*

Load **simple and clear** display for information.



站序	站名	到时	发时	时长
1	北京南	----	06:43	----
2	沧州西	07:35	07:38	3分钟
3	德州东	08:05	08:13	8分钟
4	济南西	08:37	08:41	4分钟
5	曲阜东	09:13	09:15	2分钟
6	枣庄	09:38	09:40	2分钟
7	宿州东	10:12	10:14	2分钟



## Disadvantages

### 1. *Synthesizability*

No **feedback** for pressing a button, users will have no idea whether they have chosen the right option.

### 2. *Consistency*

During the Late query, it lack the **shortcut option** of QR code scanning operation like other functions do, which creates burden.



## Improvement

Add a **feedback** for pressing a button, a simple highlight could work.

Add the **shortcut option** of QR code scanning into Late Query.







## Disadvantages

### 3. *Task migratability*

No **option** of telephone reservation once fail to reserve the tickets.

### 4. *Customizability*

No options for **preference setting** or changing font, color of its UI.

## Improvement

Add an **option** for telephone reservation

Adding an option for **preference setting** that user can adjust the font and background color.



## Disadvantages

### 5. *Recoverability*

Once **Exception** happened the app will crash, only restart the app can work.

### 6. *Task conformance*

Although satisfied most user's expectation, lack of **remind function** ahead of the schedule for the train depart.

## Improvement

The system should consider that once **exception** happens, the app should go back to the previous state.

The app should provide **remind function** that will remind the user ahead of time for the train that is going to leave.



## Shneiderman's Eight Golden Rules

1. Strive for consistency
  - ✓ The app has Similar layout, command use as other apps.
  - ✗ No shortcuts for users.
2. Enable frequent users to use shortcuts
3. Offer informative feedback
  - ✓ Inform the user once loading is finished.
4. Design dialogs to yield closure
  - ✓ Once successfully reserved tickets, it will provide the order information.



## Shneiderman's Eight Golden Rules

5. Offer error prevention and simple error handling
6. Permit easy reversal of actions
7. Support internal locus of control
8. Reduce short-term memory load

- ✓ Inform the user to input detailed information before buying the tickets.
- ✗ No such function.
- ✓ Version update will not changing operation logic.
- ✓ Simple display of ticket information.

# Work Division

## ***Content***

Advantages:

Haotian Sang & Xiao Xie

Disadvantages & Improvement

Zhuohua Qi & Yuekai Yin

Shneiderman's Eight Golden Rules

Chenhui Mao

## ***PPT***

Chenhui Mao & Zhuohua Qi & Yuekai Yin

## ***Presentation:***

Haotian Sang & Xiao Xie



# Individual Work

**Name:** Haotian Sang

**ID Number:** 16722022

**Contribution:** Analyzed the principle and structure/layout/navigation