



Make it Easier

for the **Elderly** to Use

Smartphones and Appliances

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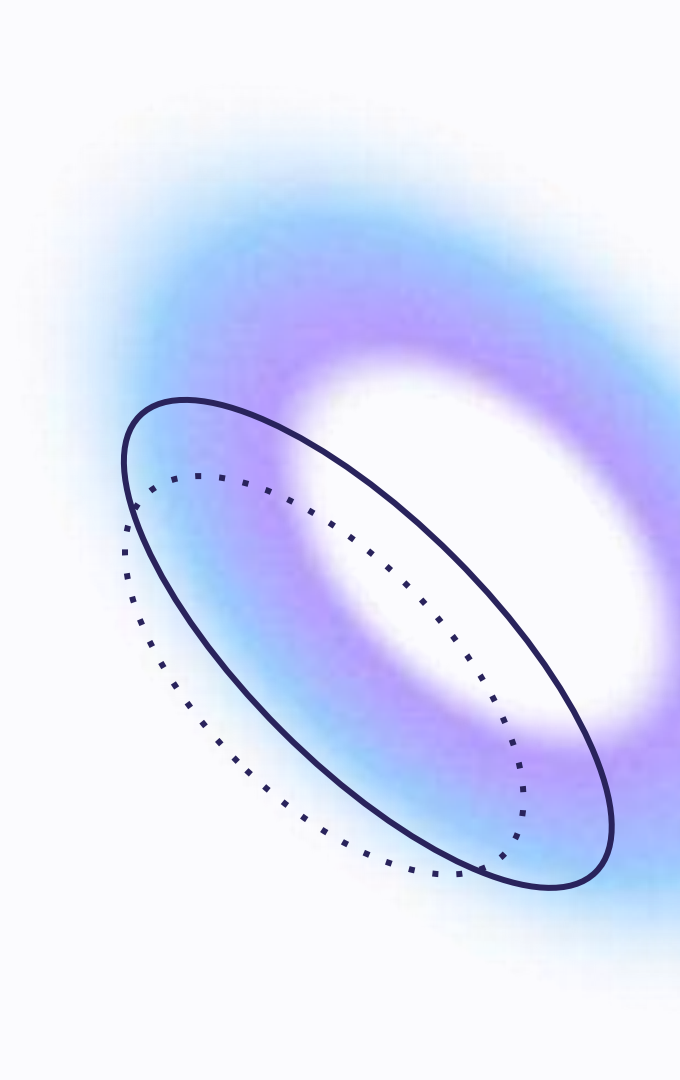
05.

HMW



01.

Introduction



Modern Life with technology.



Consider someone....

Someone **over 60 years** old and retired with lost of free time...

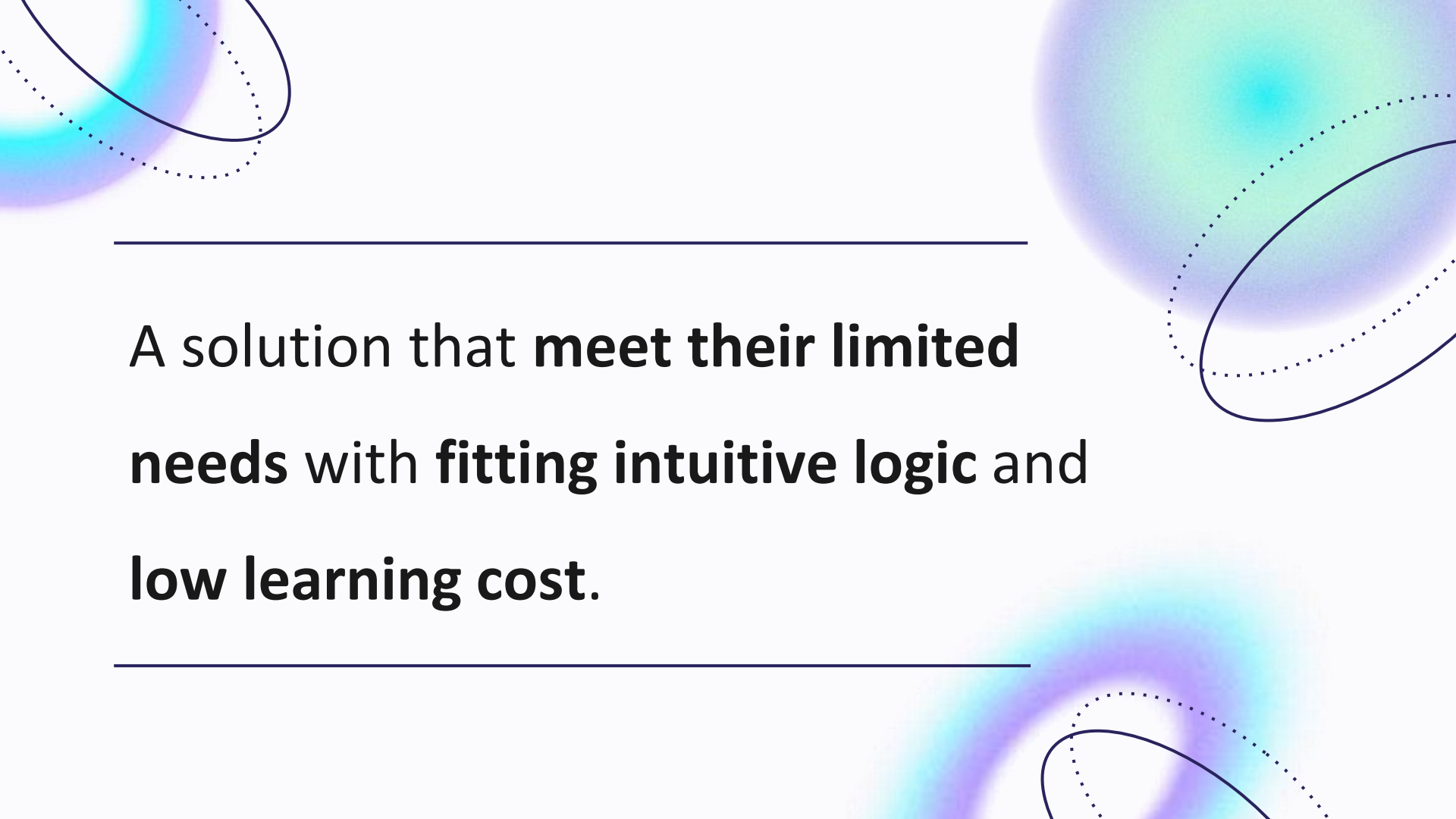
Someone who live **alone** or without the younger...

Someone with **obstacles** in **vision** or have **limitations** on **learning** ability...

Someone who must get along with **smart equipment**...

Someone who fell hard to accept some **interaction logic** or learn **new things**...

They doesn't pursue the efficiency, but they want everything to be simple enough.



A solution that **meet their limited needs** with **fitting intuitive logic** and **low learning cost.**

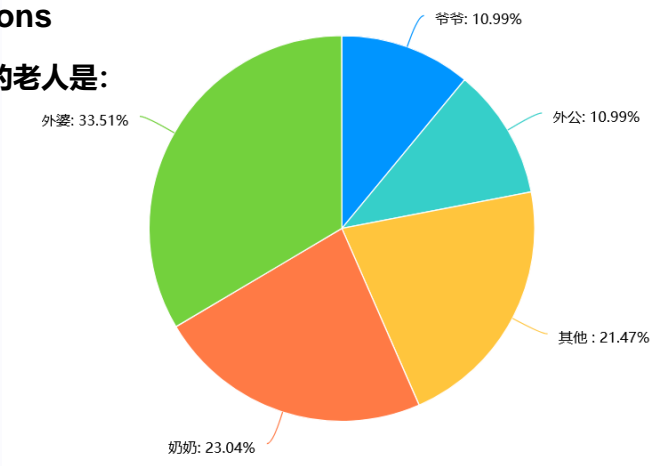
02.

Questionnaire

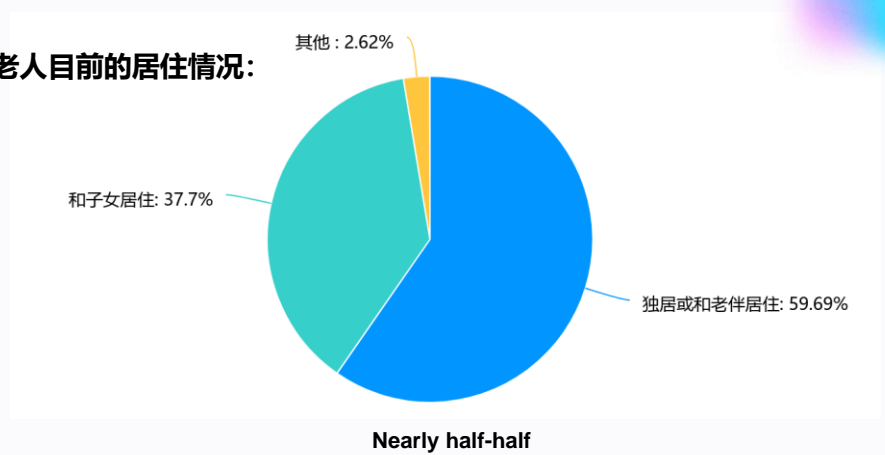


Respondents' Basic Conditions

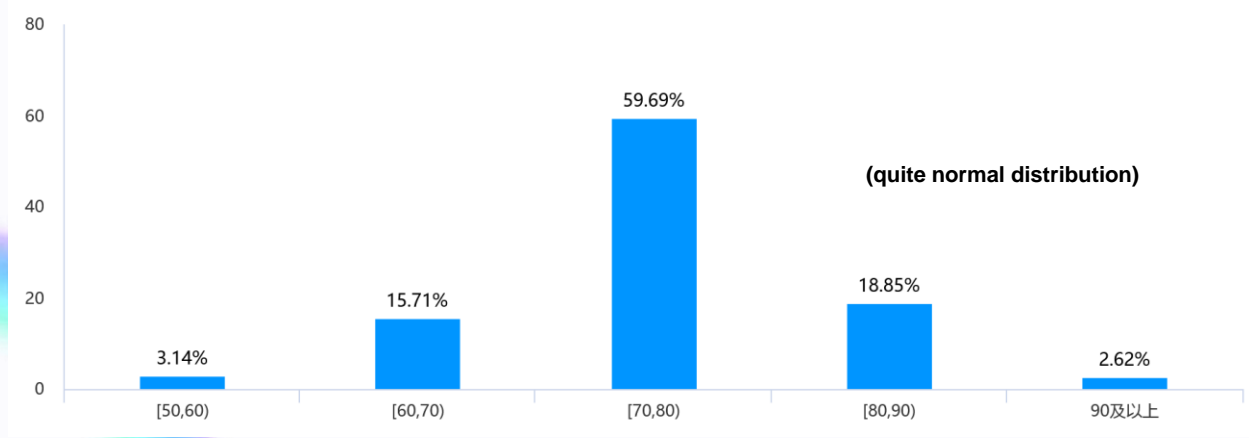
最熟悉的老人是:



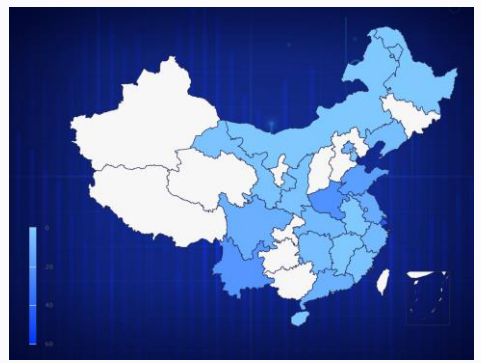
这位老人目前的居住情况:



这位老人的年龄处于:

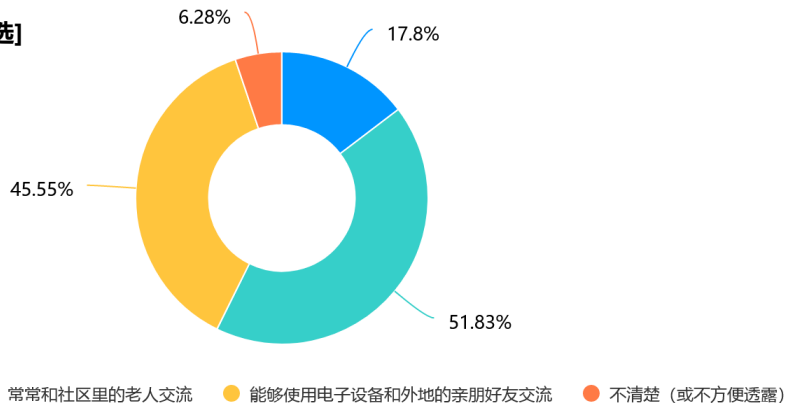


191 Respondents from all over the country



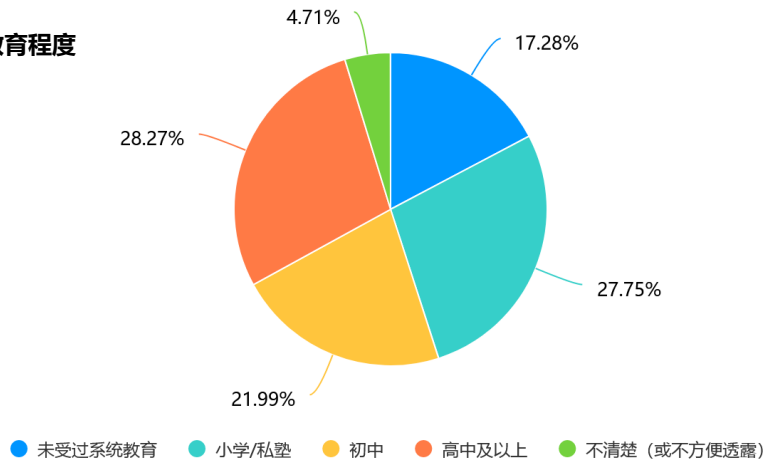
Elderly's Social Intercourse & Education state

受测老人的社交状况[多选]



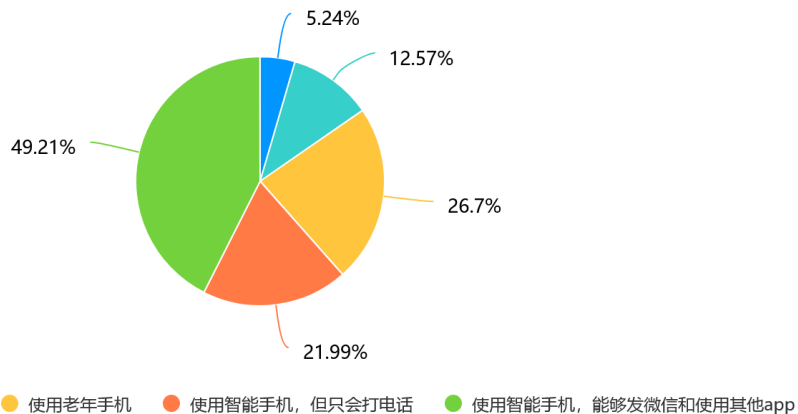
46% :
Electronic devices are vital
for the elderly's social needs

受测老人受教育程度



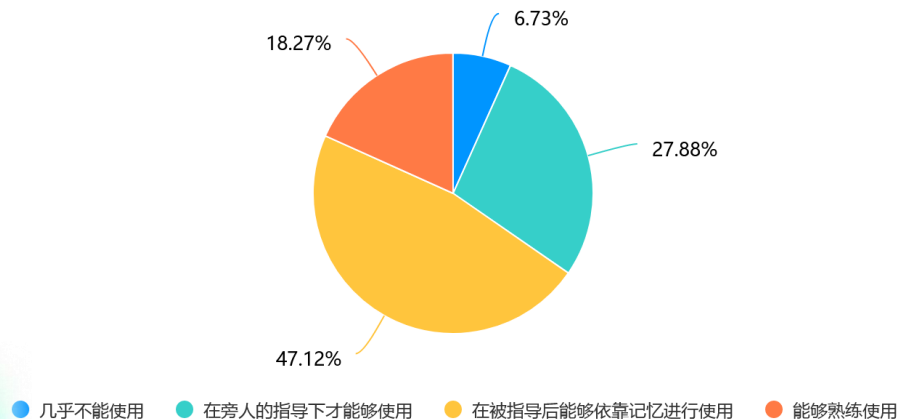
45% Below the primary education level
67% Below the middle school level

老人使用电话情况

Elderly's
Device using state

Can VS Can't in using smart phone:
Half-Half

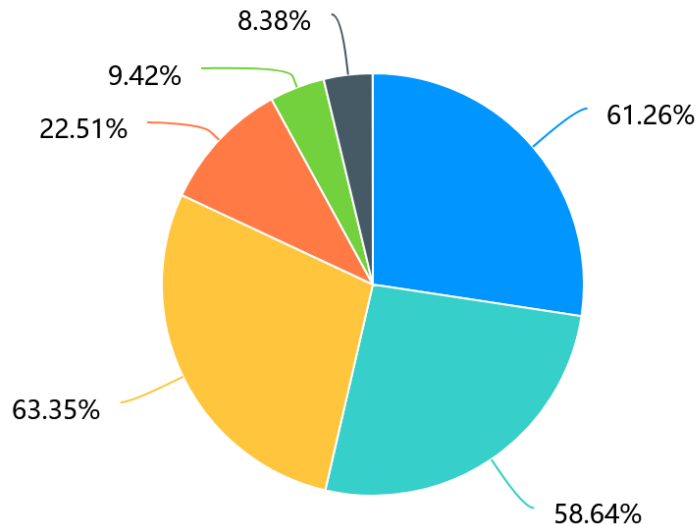
老人使用手机/家居设备的情况



72% of the elderly
can not deal well with
these complex modern devices!

老人平常会使用哪些设备[多选]

- Basic housekeeping appliances takes the Majority
- Many elderlies are still using old-fashioned ones
- Smart home appliances are not popular

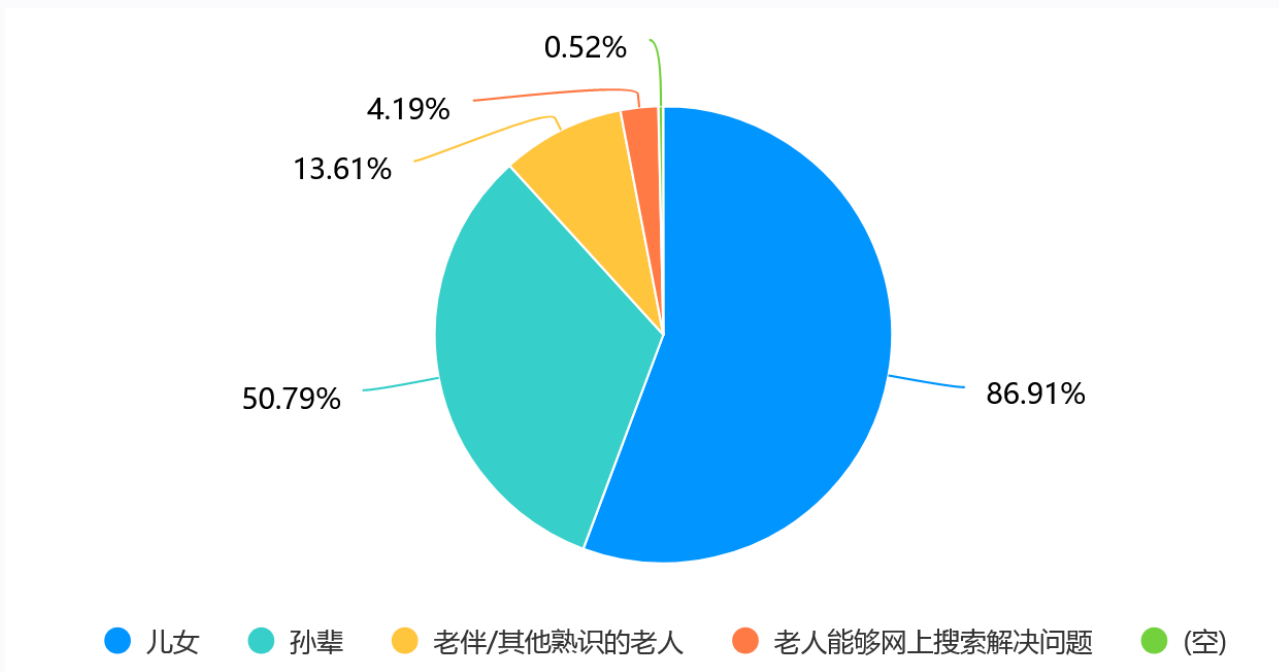


● 1.老式旋钮按键的 洗衣机/电饭煲/微波炉 等
● 4.智能云电视

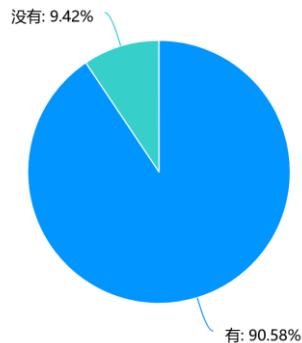
● 2.新式多功能的 洗衣机/电饭煲/微波炉 等
● 3.智能音箱 如小爱同学/小度/华为语音助手 等

● 3.机顶盒电视/收音机
● 5.智能家居 如声控开关等

老人在电子设备使用中遇到问题会向谁求助[多选]

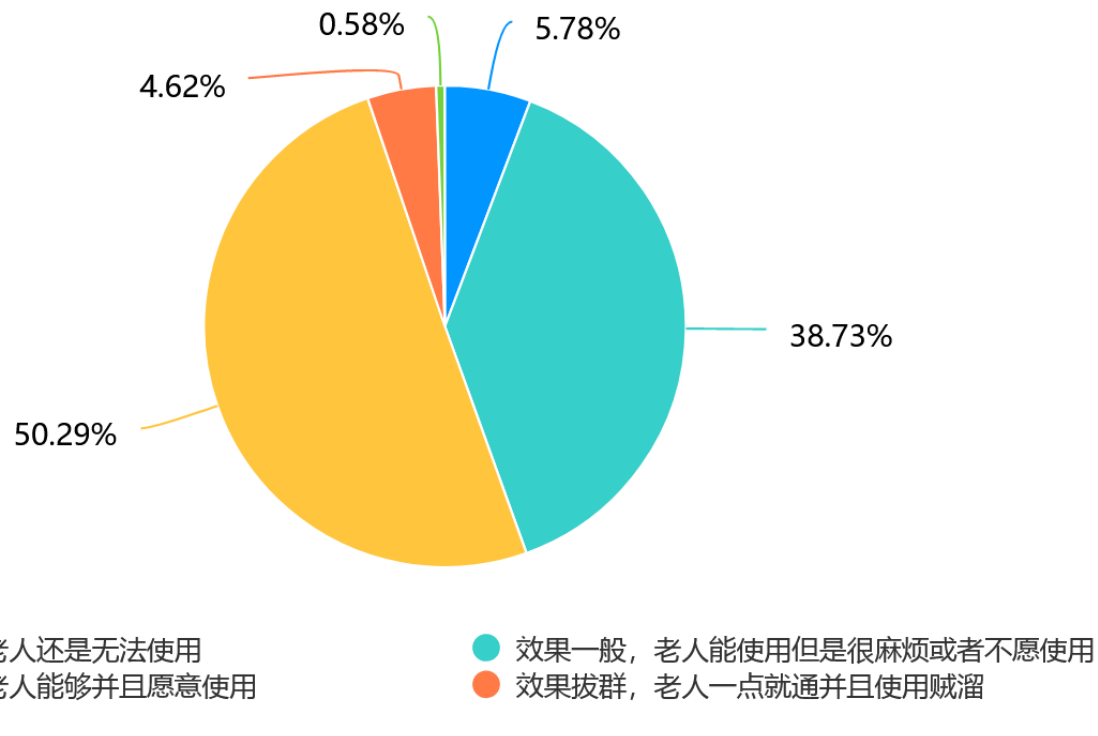


- The younger generations are the most important helping hands
- They tend to turn for help no to independently solve the problems

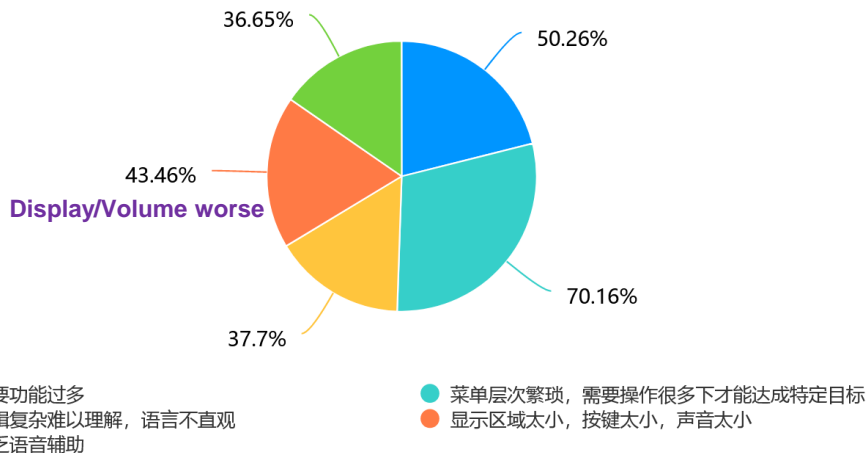


是否有教老人使用电子设备的经历

你指导老人的效果如何



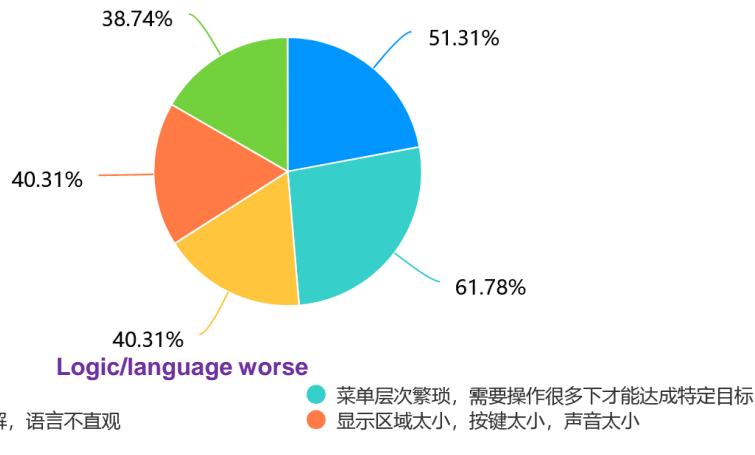
14 智能手机(及手机应用)对老人使用易造成困扰的地方



Problem shooting

Very similar, even in relative importance level !

多功能现代家电 (例如智能洗衣机) 对老人使用易造成困扰的地方



Major Problems:

- Too complex menu
- Too many sub functions
- Inadequate display size/Volume
- Complex logic/language
- Lack of Voice assistance

对老人的访谈

1. 你在使用家电或智能产品中有哪些**困扰**？

你遇到困扰的**频率**？是什么**场景**？一般遇到问题怎么**解决**？是否能解决？

家用电器菜单复杂，难以理解（新式洗衣机、电视等）；

看不懂App**操作逻辑/UI**：电视界面/开付款码；

不需要的信息/功能太多：手机老是提醒内存满了，电饭煲煮粥功能

声音不够大，同功能下没有考虑老年人的使用场景（如大音量外放）

响应/反馈设计不适老，按了没有明显的提示，界面需要手速

弹窗，更新引发的界面变化无法理解

很多问题都是几乎每次出现，老人们只好干脆不用

2. 你还想要学会、需要学会哪些家电或智能产品的功能？（具体）

智能手机：

- 信息查询，如天气，新闻

- 网上服务，如生活缴费，一码通，线上购票

家电：触屏电子设备，扫地机器人

*为什么老人们无法提出很多年轻人对电子产品的**基本需求**：

1. 没有接触过更多的智能家电

2. **学习成本高**导致不愿意接受新模式

3. 现有的智能产品零碎，不够整合，不够统一

3. 你希望该产品做出哪些改变？

自动的，一键的

一眼能看懂的文字和图案

文字引导不要太过跳跃

有效应对遗忘/未及时反应带来的问题（忘记接

电话，忘关冰箱门）

近年来产品有所改观，但还是不够简单

*老人们觉得比较好的产品

微信视频通话

抖音app

适老化UI

声音很大可以外放广场舞音乐的老人机

老人对电子设备使用过程中的共性

1. 基于**图案的、时序性、步骤式**的理解方式

2. 背下了操作流程但是不甚理解其含义

3. 需要用纸笔等辅助记忆流程

4. **视力和精力**受到大量消耗

5. 采用退出重进，完全重来的方法解决逻辑问题（如操作到一半**弹窗**）

6. 需要“**不智能**”的设计：少选择，少层次

7. 更喜欢实体按键

18 elderlies



对子女的访谈

1. 你希望老年人熟练掌握哪些现代电子产品的使用，或具体功能（手机买菜、核酸身份码）？

手机端：付款码、健康码、城市服务/政务办理、发收语音消息、在线买菜

智能家居：使用智能家电、需要手机控制的设备、智能电视

2. 你在帮助他们使用产品的时候遇到的最大困难？你认为阻碍他们使用产品的最大问题是？

交互逻辑太复杂、老人对电子产品的逻辑不习惯

老人无法理解功能描述（应用内文字引导）的词语

依靠背诵操作步骤，只会孩子教的功能

老人倾向于使用传统的产品，有路径依赖

基本功能入口太深、不明显

无用功能较多

应用内字太小

验证手段复杂（密码、验证码……）

3. 你希望这些产品做出哪些改变？

让老人能够理解，简单

界面简洁单一

大字体，少弹窗

一键的、被动的（如扫描变为被扫码）

10 Children
father/mother
of their grand generation



-Smart Phones

-Housekeeping Appliances

- Emotional needs
- Life convenience
- Social needs



- Too complex menu
- Too many sub functions
- Inadequate display size/Volume
- Complex logic/language
- Lack of Voice assistance
- No “waiting awareness”

Target:
Elderlies &
Their children

适老化

Adjusted for the Elderly

We want to help: Elderlies & Their children



为老人而生

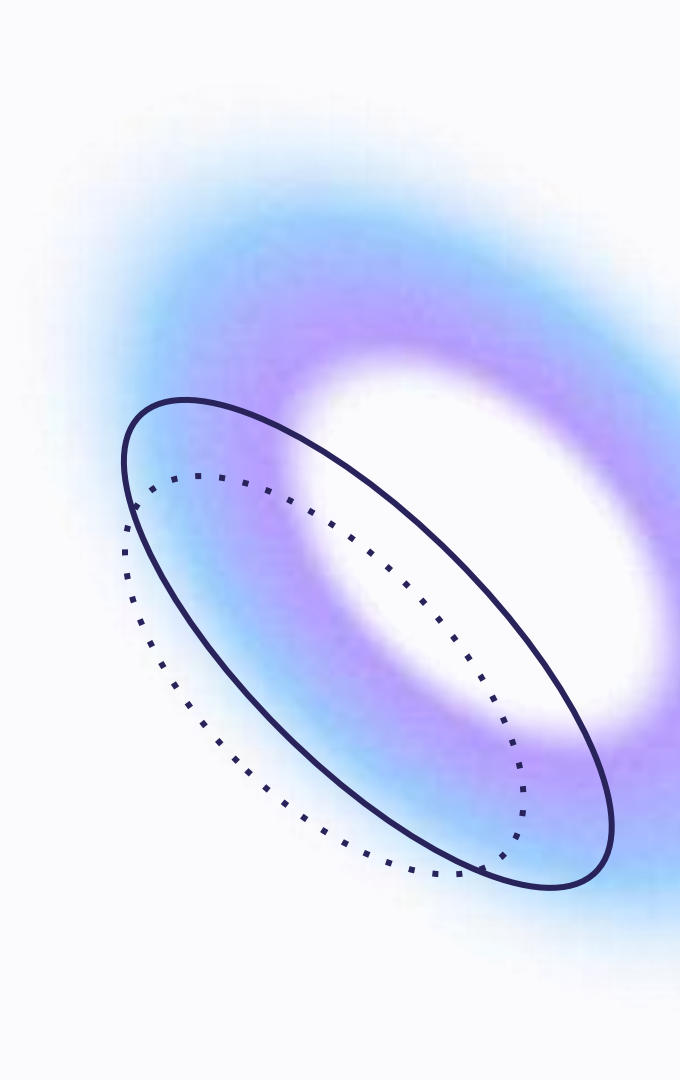
Designed for the Elderly

We want to help: Elderlies & Their children



04.

Point of View



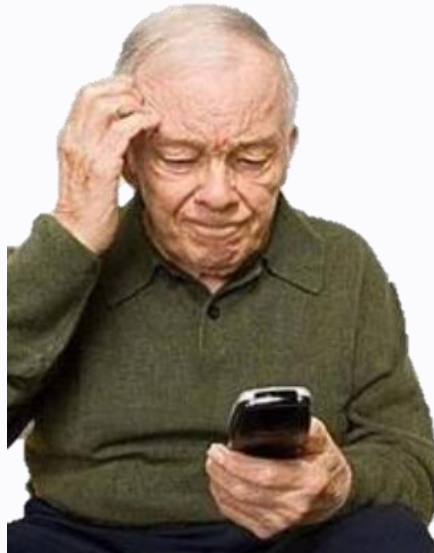
POV-User: the elder that use technique

Over 60

with diminished ability to learn, and visual or hearing impairment.

Unfamiliar with smart device

out-of-date cognitive model.



Use technique

to live better in modern society.

Lack of help

Live alone or without the younger.

POV-Need: the elder's limited demands



-
- answering and making calls.
 - sending and receiving wechat.
 - news, weather, entertainment needs.
 - smart household applications
 -

POV-Insight



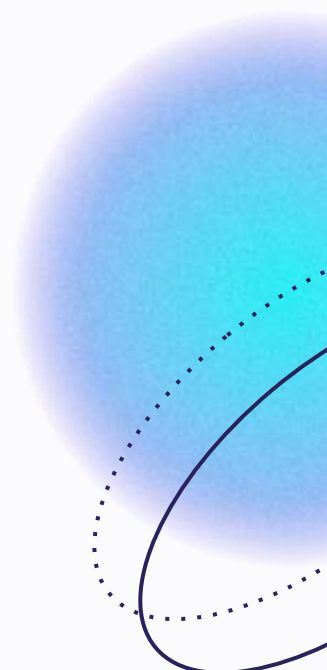
Existing Attempts

Only care about physical obstacles,
rather than **logic and interaction**.



Our Goal

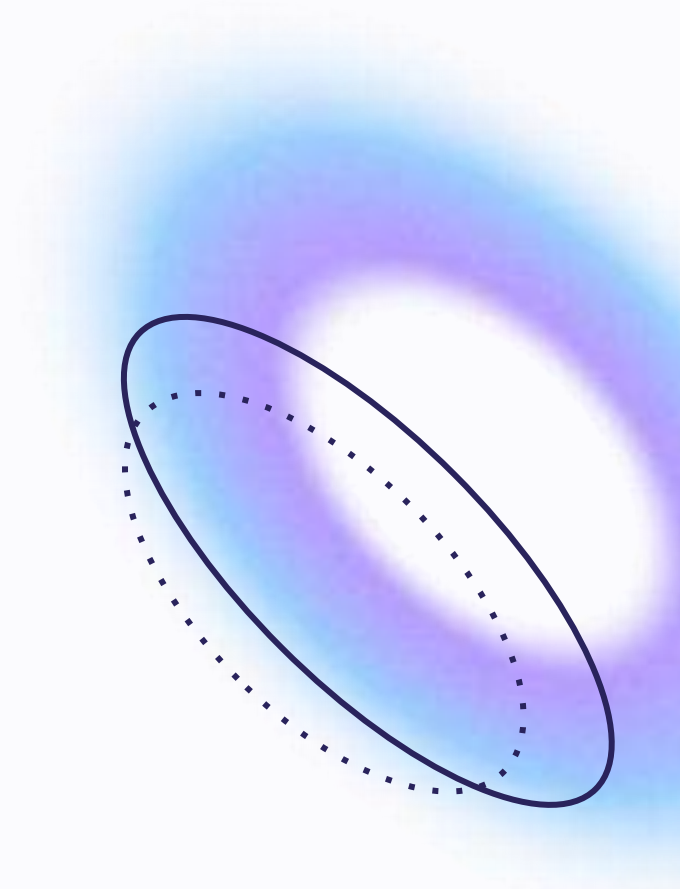
Some device that satisfies their
cognitive model.



05.

How Might We?

HMW satisfy their cognitive model to solve the problem?





Some sub-goals we have to obtain.

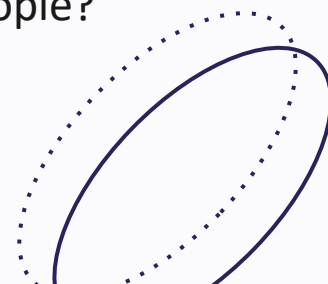
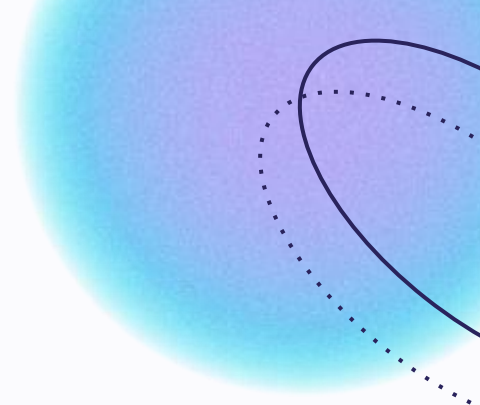
01. HMW decrease the number of steps?

02. HMW provide adequate information in a simpler display?

03. HMW introduce convenient functions with less studying efforts?

04. HMW make personalized settings for different elderly people?

05. HMW help construct functional abstraction?



A “Dumb” Smart product



HMW design a **Ultimate device**, that:

- Integrate all functions they need
- with very simple layer UI
- have Physical keys, large volume and display
- direct logic
- with words and pictures are easy to understand
- more and more



Thanks

They are our grandparents, our parents and ourselves in the future.
Helping them is helping ourselves.
