

**Link:** <https://github.com/SDU-DRMJ/DRMJ-huam-interaction>

### **project proposal:**

随着中国步入老龄化社会的进程加快、老龄化程度的持续加深，中国将由老龄化社会进入老龄社会。面对这类问题，我们团队依托“互联网+”、物联网技术以及大数据分析技术等，致力于打造一款关怀老人的 app。该 app 预计包含有关琴棋书画等的教学视频或直播，用以培养老人的兴趣爱好，还会包含有关健康食疗等的新闻咨询，使老人重视健康问题，更会包含与家人无障碍沟通的社交平台、实时更新的家人动态等，坚实老人与家人之间的亲情纽带。

### **Overall statement**

我们目前建立的系统，收到了很多反馈，主要集中在 UI 设计、配色、易用性等方面，同时还有相当一部分技术问题。例如我们的 UI 设计是很简略的，参考了微信那种设计，但这种过于简略容易使人产生单调乏味感，我们的配色也比较单一，只有白红绿三色，很扎眼，不利于视觉障碍的人。同时易用性方面有待改进。程序设计服务器方面难以保证稳定性，只能本地运行。

The system we are currently building has received a lot of feedback, mainly focusing on UI design, color matching, ease of use, etc., and there are still quite a few technical issues. For example, our UI design is very simple, referring to the design of WeChat, but this kind of simplicity can easily make people feel tedious, and our color matching is relatively simple, only white, red and green, which is very eye-catching and not conducive to vision Handicapped people. At the same time, the ease of use needs to be improved. It is difficult to guarantee the stability of the program design server, and it can only be run locally.

### **Identified problems in a category**

1. UI 设计过于简陋
  2. 软件界面配色比较单一
  3. 对老年人的易用性较差
  4. 软件架构改进空间较大
1. The UI design is too simple
  2. The color matching of the software interface is relatively simple
  3. Poor usability for the elderly
  4. There is a lot of room for software architecture improvement

### **Solutions to each problem**

1. 针对第一个问题，我们可以参考借鉴开源的成熟 UI 设计，将其移植到我们的系统上，从而扩充 UI 设计，不至于显得过于简陋。
2. 针对第二个问题，我们增加几种温和的配色，例如天蓝色，不至于大红大绿的对比，使得视觉观感十分不好，同时我们尽量让对比感强烈的色彩不相邻出现。
3. 针对第三个问题，我们尽力而为，因为我们很难设身处地的去理解老人的使用体验，在学校，老人样本太少，也无法得到准确的使用体验，我们争取把这个系统做到老年友好，起码对有一定思维能力的人足够友好，
4. 针对这个问题，我们思考了几种方案，但因为成本问题我们很难购置能够支持高并发的服务器，我们的设计尽量从软件架构上改进，提高用户本地使用的流畅度，做到一点也不卡顿。

1. For the first question, we can refer to the mature UI design of open source and transplant it to our system, so as to expand the UI design without looking too simple.
2. To solve the second problem, we add several mild colors, such as sky blue, so that the contrast between red and green does not make the visual perception very bad. At the same time, we try to make the colors with strong contrast not adjacent to each other.
3. For the third problem, we try our best, because it is difficult for us to put ourselves in the shoes of the elderly to understand the experience of the elderly. In school, there are too few samples of the elderly, and it is impossible to get an accurate experience. We strive to make this system suitable for the elderly Friendly, at least friendly enough to people with certain thinking ability,
4. In response to this problem, we have considered several solutions, but because of cost issues, it is difficult for us to purchase servers that can support high concurrency. Our design tries to improve the software architecture to improve the fluency of users' local use. Not stuck.

### **Expected improvement**

1. 我们已经从一些开源网站，找到了一些成功的 UI 设计范例，我们将这些范例用起来，基本能让我们的系统看起来更加多彩，不会产生审美疲劳
  2. 我们挑选了克莱因蓝、橘色、淡红色等温和的颜色来增加配色，减少对比度，舒缓使用者的视觉疲劳。
  3. 我们扩大用户调研样本，倾听更多老年用户意见，然后进行改进。
  4. 我们对软件进行多方面测试，尽可能的找出问题。
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1. We have found some successful UI design examples from some open source websites. We use these examples to basically make our system look more colorful without aesthetic fatigue
  2. We selected mild colors such as Klein blue, orange, and light red to increase color matching, reduce contrast, and relieve users' visual fatigue.
  3. We expand the sample of user research, listen to more opinions of elderly users, and then make improvements.
  4. We test the software in various aspects to find out the problems as much as possible.