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Minority Care: Make Color No Longer a Cognitive Barrier

Shengli Pang
UX Designer,
Thunder Fire UX team, NetEase Games

#GDC22

PANG Shengli

UX Designer

Thunder Fire UX Team, NetEase Games

About NARAKA: BLADEPOINT

GAME INTRODUCTION

- A Battle Royale game developed by 24 ENTERTAINMENT from NetEase Thunderfire.
- 2021.07: Beta released in China → 2021.08: Released on Steam → 2021.12: Released on Epic
- 60 players: last-man-standing gameplay with the survival
- Payers have to explore the map and collect equipment and sources, avoid being hurt by the Shadow Corruption, and fight for survival till the end.

What caught our attention to Accessibility Design ?

- A top game streamer in China, YYF, often got confused with the item grades in the tests, since it was hard for him to distinguish different colors.
- According to his description, we realized that he is actually a color-blind player. The color-related mechanism for distinguishing item levels brought some trouble to him in the gaming experience.

一只咕咕
924
×1
散修丶懒阳
270
×1
散修丶桂伯恒
600

Why do color Accessibility Design?

1 THE IMPORTANCE OF COLOR IN THE GAME

- Item Grade Levels
- The Meaning of Status
- Danger Notice
- Guide, Emphasize, Explain

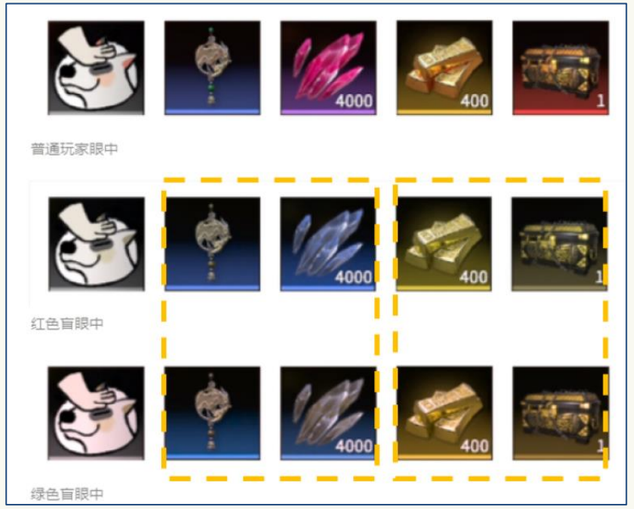
2 HUGE BARRIERS FOR COLOR-BLIND PLAYERS

The game interface in the eyes of color-blind players:

Can't distinguish colors of the icon

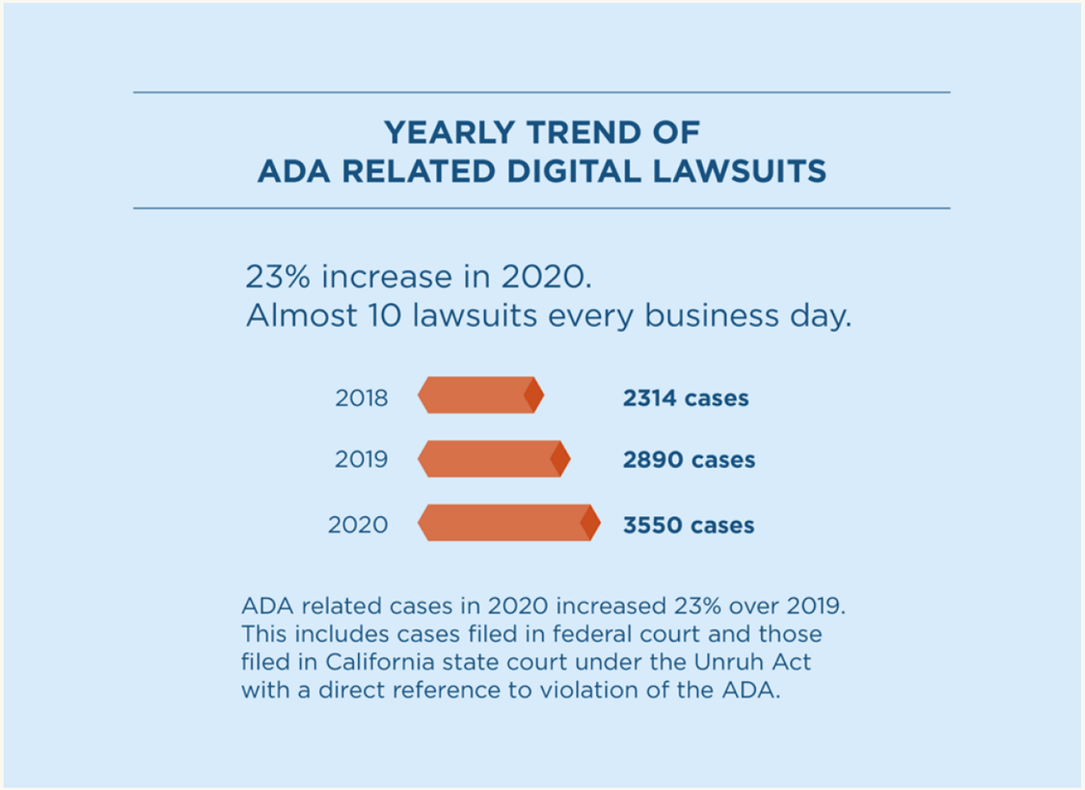
Difficulty in telling UI recognition

Can't find danger notice

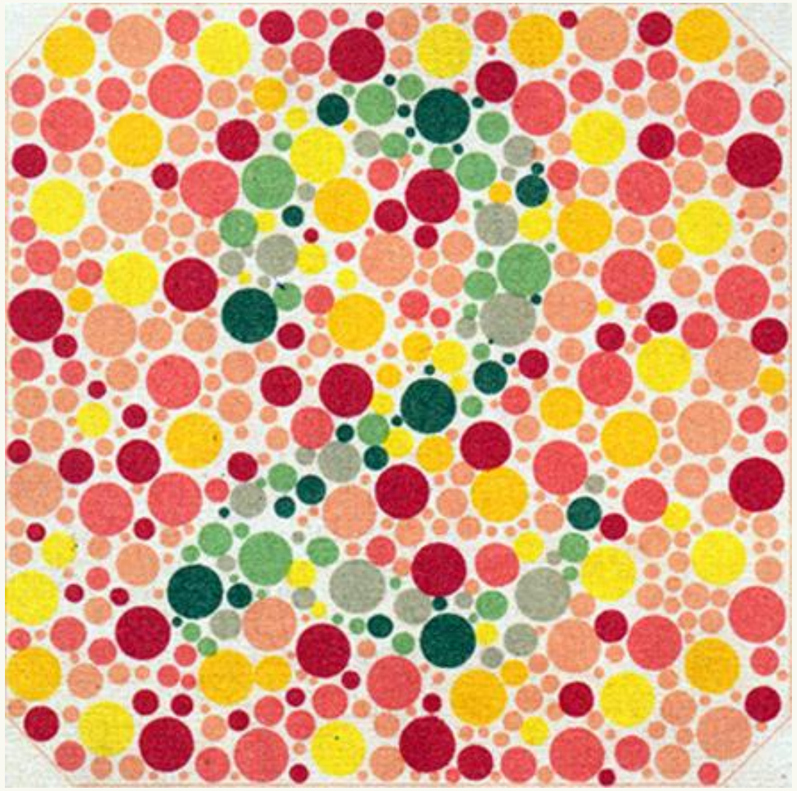


Can't distinguish the item grades

3 COMPLIANCE REQUIREMENTS & MARKET SIZE



Clear regulatory requirements in many countries since 2019



The global market size of about 4000w color-blind players

How to remove the barriers caused by color?

1 UNDERSTAND THE REAL NEEDS OF COLOR-BLIND PLAYERS

The color in the eyes of common players

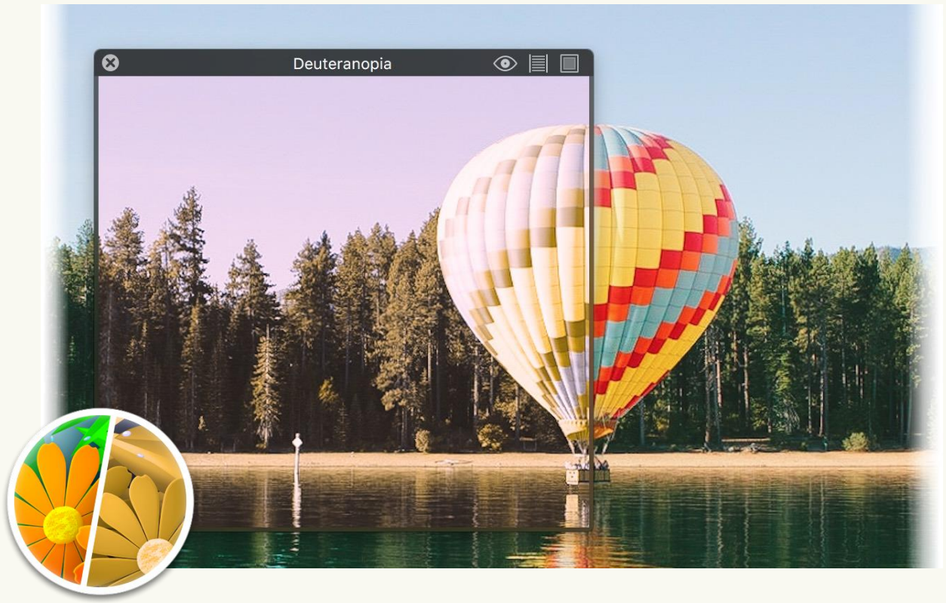
The color in the eyes of red-blind players

The color in the eyes of green-blind players

The color in the eyes of blue-blind players

- **Different groups of color-blind players have various cognitive barriers in the colors.**
- **Their real needs are essential for us to figure out feasible directions and find points of penetration in design.**

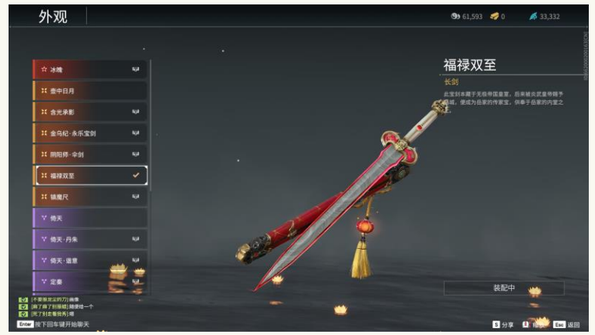
1 UNDERSTAND THE REAL NEEDS OF COLOR-BLIND PLAYERS



Sim Daltonism color-blindness simulator

NARAKA color-blindness simulator

2 FOCUS ON CORE SCENARIOS & SOLVE KEY EXPERIENCE ISSUES



1. Find the core scenes

2. Process by priority

3. Ensure the game running

REVISIT THE COLOR DESIGN OF GAME ARTIST

1 NARAKA-LESS COLOR SYSTEM

Determination standard of LESS-COLOR SYSTEM: Color Info≤3

Aiming sight

Teammate color identification

Enemy health bar

- **Single-dimensional**
- **Distinguish the differences by color**

1 NARAKA-LESS COLOR SYSTEM

Solutions:

- Color-blindness simulator: Restore real scenes
- Check the availability of colors in various cases
- Toggle between Normal/Color-blind modes
- Optimize color performance
- Ensure ease of use for all players

Optimized: normal, red-blind, green-blind players can tell the Crosshair

Optimized: red-blind, green-blind, blue-blind players can tell teammate’ s info

Optimized: normal, red-blind, green-blind players can tell health bars

NARAKA-MORE COLOR SYSTEM

Determination standard of LESS-COLOR SYSTEM: Color Info > 3

Colors for different grades in NARAKA

Items of different levels

战神的装备品级颜色

- **Multi-dimensional information**
- **Exclusive meanings; no alternatives**

2 NARAKA-MORE COLOR SYSTEM

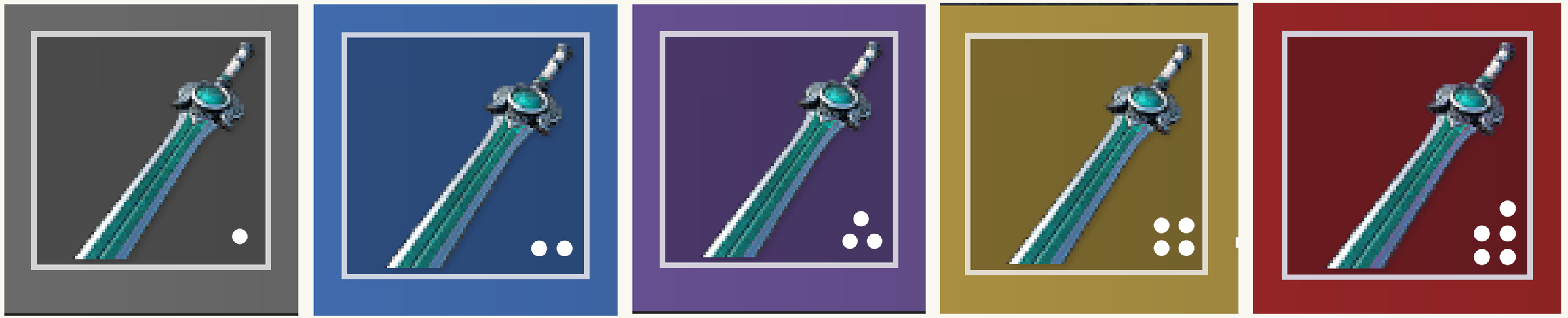
2 NARAKA-MORE COLOR SYSTEM

NARAKA-MORE COLOR SYSTEM

Solutions:

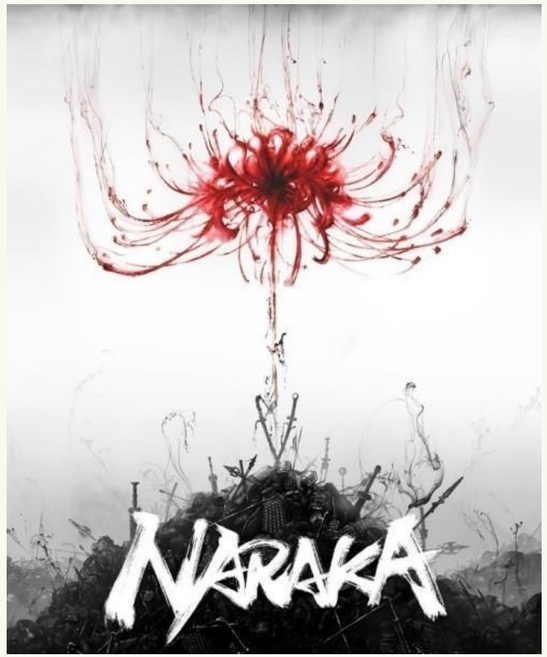
- Reduced the color-only mechanism
- Added information dimensions
- Distinct icons on the UI layers

3 INCORPORATE ACCESSIBILITY DESIGN INTO THE GAME



- This design seems to be too obvious as a barrier-free design. And for color-blind players, it may cause a psychological burden on them.

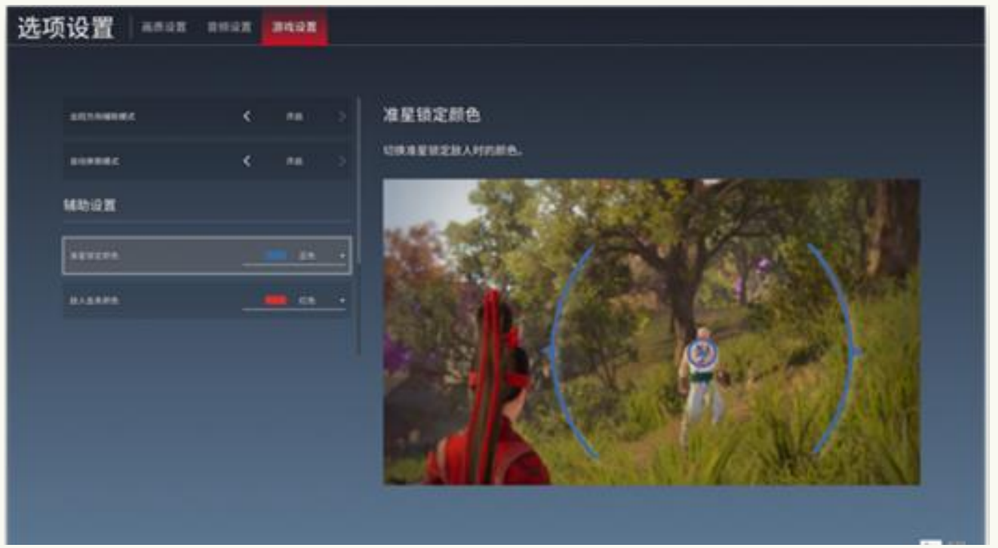
3 INCORPORATE ACCESSIBILITY DESIGN INTO THE GAME



- Soulbloom: a typical element in NARAKA
- Make connections between the game world view and UI Accessibility Design.
- Normalize Accessibility Design

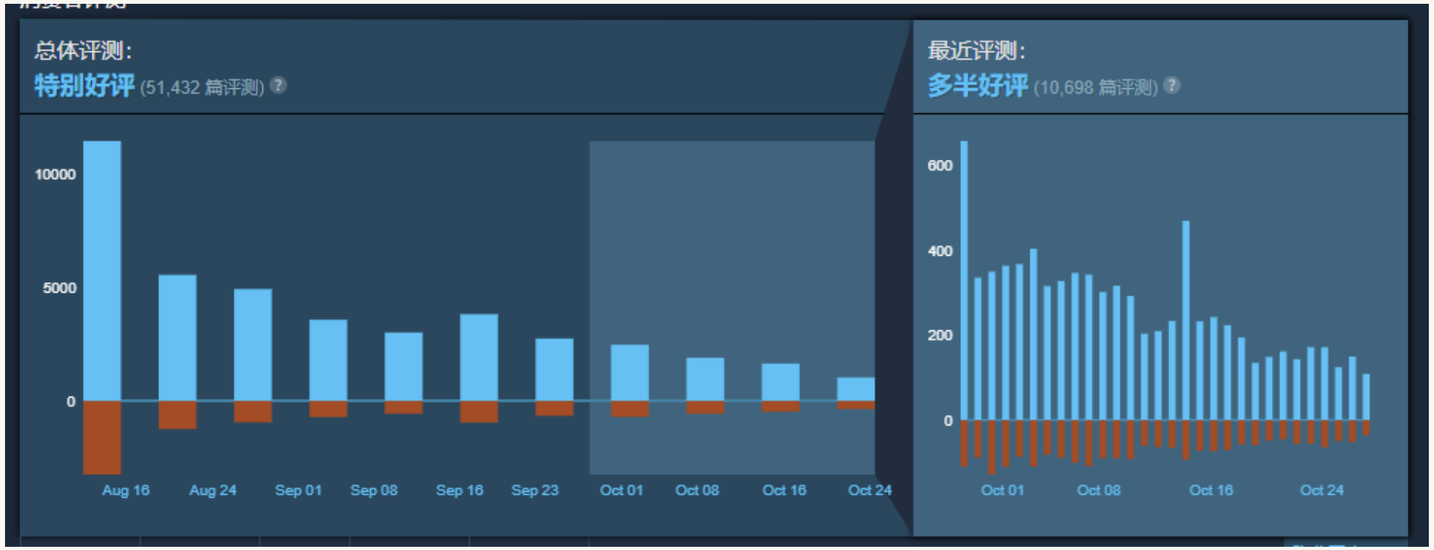
NARAKA’s Achievements in Color Accessibility Design

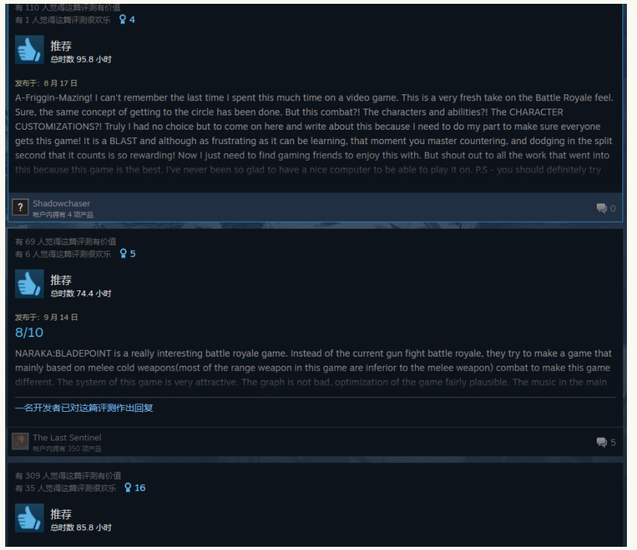
1 COMPLETE CONTENT

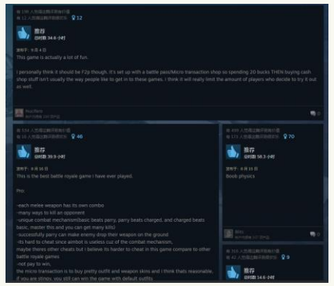


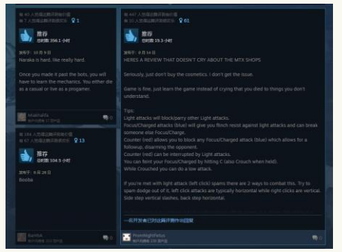
- Covered in all features: all the core combat-related contents are now covered with Accessibility Design.
- Wide coverage of players：Various types of color-blind modes are available.

2 PLAYER REPUTATION & ONLINE RESULTS









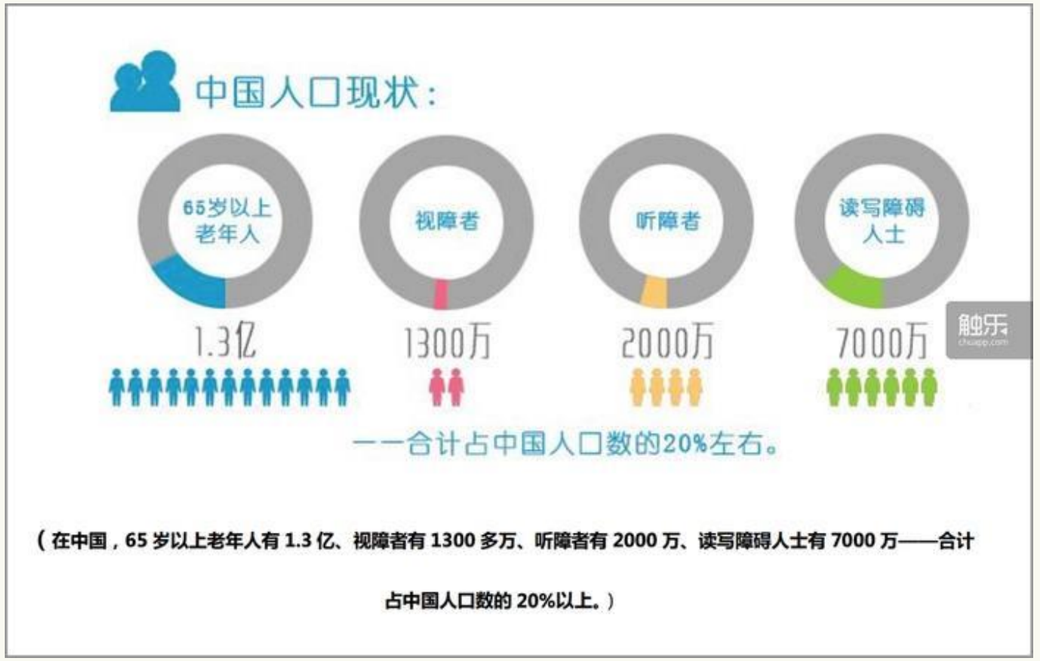
- Feedback from Player Interview: Accessibility Design really helps a lot.
- Color-blind players are able to experience the game without recognitive barriers: Successfully helped NARAKA open up about 10% of the potential player market.

3 FUTURE DIRECTION

- Dig into the characteristics of Next Gen Console: Haptic Feedback、Adaptive Triggers
- Strategies of diverse senses and dimensions to give a hand to players with barriers.

Takeaways

RESPONSIBILITIES & OBLIGATIONS



- Our Responsibility: Care for minority players
- Make more people engage in and find joys in our game.

THANK YOU

PANG Shengli

UX Designer

Thunder Fire UX Team, NetEase Games