Plague Inc. is a stand-alone strategy game themed by infectious diseases. This game requires players to spread the selected pathogen to the whole world to create a super plague, with the ultimate goal of killing all mankind by the epidemic. In the process of continuous transmission and infection of pathogens, players have to continuously evolve the infectivity, resistance and symptoms of pathogens to cope with the counterattacks and researches against plague by governments and scientific research teams around the world.

Ndemic Creations, the research and development team of Plague Inc., is a British independent game studio specializing in strategic games. Plague Inc. is its first work, which debuted on the iPhone in 2012 and has been a worldwide success. The game is famous for its low cost, high returns, and virus-like rate of success. The initial team of Plague Inc. only had 4 members, and the developers, not engaged in the game industry before, spent less than USD 5,000 on R&D. However, the player amount broke 100 million worldwide on September 29, 2017, and once ranked first in ios paid games in 126 countries.

Developers revealed that the success of Plague Inc. came from oral spreading. On the first day of its launch, there were 500 downloads, and the number exceeded 1 million after seven weeks. Under the game environment at that time, players were accustomed to playing decent themes to save the world, while infecting plague and destroying human beings seemed an innovation. Terrible plagues have erupted several times in human history. Ebola virus and dengue fever have also attracted worldwide attention in recent years. Players are familiar with this field and excited to play a villain like Umbrella Corporation. The game adopted electronic music with a sense of dark science and technology to create a tense atmosphere. The title and logo took a symbol with tentacles as the main body based by dark red and black to show the evil virus and the dried-up blood enveloping the whole world.

As Ndemic Creations claimed, Plague Inc. is characterized by strategies and "scary" simulations of reality. Its strategies are reflected in the player's need to find a balance between producing viruses, spreading viruses, killing human beings and resisting vaccine development. The challenge is that players need to judge whether to infect human beings in a large scale or kill human beings quickly. Pursuing infectivity may result in no point being put on the lethality and unable to destroy human beings. Too strong aggressiveness may result in the host being killed by the virus before it is spread out, and being discovered and studied by governments of various countries too early.

Plague Inc. also has some details simulating the reality. The main interface of the game is a map of the world. The theme of infectious diseases is closely related to reality. There are also a variety of transmission ways, symptoms and special abilities: bird, mouse and mosquito transmission; cough, cyst and even total organ failure; cold resistance, heat resistance and drug resistance, which can all be evolved by players. When observe the expanding red scope of plague infection and the popping-up news of "your plague infectivity has exceeded tuberculosis" from time to time, players would have a sense of enigmatic accomplishment. At the same time, these news trends and the world situation also gave players tips on how to study the virus. When Ebola was rampant in 2014, the developer also launched a game with the same name, and its new work Rebel Inc. also seemed to follow the striking news of Taliban in Afghanistan, which reflect the orientation to simulate the

reality of hard core and evil faction of Ndemic Creations.

Plague Inc. was issued with iPhone in early 2012 and on Android in the second half of 2012, and then on PC only two years later. This shows that the initial reputation came from mobile phone players. After all, simple operations such as clicking bubbles and clicking technology trees fit the mobile phone very well. The stand-alone form is also very suitable for junior and senior high school students to take to school for leisure. Students and office workers are more concerned about the connection between health, geography, pathology knowledge and reality. A quick game of ordinary difficulty takes about 20-30 minutes, which is also in line with the time requirement. As for gender, strategy games have always been dominated by male players. At least on social platforms, male players are more willing to talk about strategy games than female players. In the videos related to Plague Inc. on bilibili - Chinese youtube, the male-to-female ratio of the Top 10 comments is about 8:2 or 9:1. However, this does not reflect the real situation, as Plague Inc. be a low-level strategy game. We can only say that it cannot attract groups that only like romance, drama and non-hard core painting styles. This may be related to income, industry and city. Generally speaking, male players should still outnumber female players.

As a stand-alone game, Plague Inc. has successfully provided a stable evil experience, which is reflected of the unique background music, dark red theme color and simple operation mode, while the disadvantages lie in:

1. From another point of view, the play methods seem not rich enough, which can be summarized by "trying to allocate points to click the technology tree", so players cannot be closely attracted. The game can introduce a scenario mode to link 5-6 games with a unified scenario (e.g. spreading infection across several continents)
2. There are some news trends in the game, such as "the lethality of the player's plague exceeds the infection rate", but lack specific value or clear DNA route. New players do not know the direction to unlock the next symptom when ordering the symptoms of plague. It is suggested to giving small hints at each route in the onset symptoms.
3. In order to preserve the players, the fastest historical record of human beings destruction under each difficulty can be made to increase the speed competition mechanism.
4. When players operate to add points to change genes and diseases, they will target all pathogens in the world, which does not seem to conform to reality.
5. Many numerical values of the game are not displayed or explained, so players always rely on text description and intuition to make choice. Game guide is almost an accompanying product of the game, thus it is difficult for novice players to understand completely. It is recommended to displaying the cause of failure and numerical suggestions after fail.
6. The display of degraded genes in the game is not obvious enough, which may mislead players whether degradation is to return DNA points or deduct DNA points. It is suggested distinguishing button colors according to consumption and gain.

Some UI details:
1. If a news prompt pops up when clicking to pause for the PC terminal, the pause operation will be canceled (because the system will also be shifted to pause when the news is popped up,

and the pause will be automatically cancel when the news is closed). A series of pop-up prompts will cause players to miss the clicking of the DNA points bubble. Similarly, there is also the problem of not pausing when clicking on the technology tree interface. It is suggested changing the logic from "cancel the pause state" to "return the time of the state before the news pops up" when closing the news, and click the pause time when opening the technology tree at the same time.

2. The game can acquire DNA points through infection to new countries and gene mutation. However, it does not show the source of the increase in points, which causes inconvenience for players to understand the game.