



CRITICAL ANALYSIS

for Build a Bridge! and Flight Pilot Simulator 3D

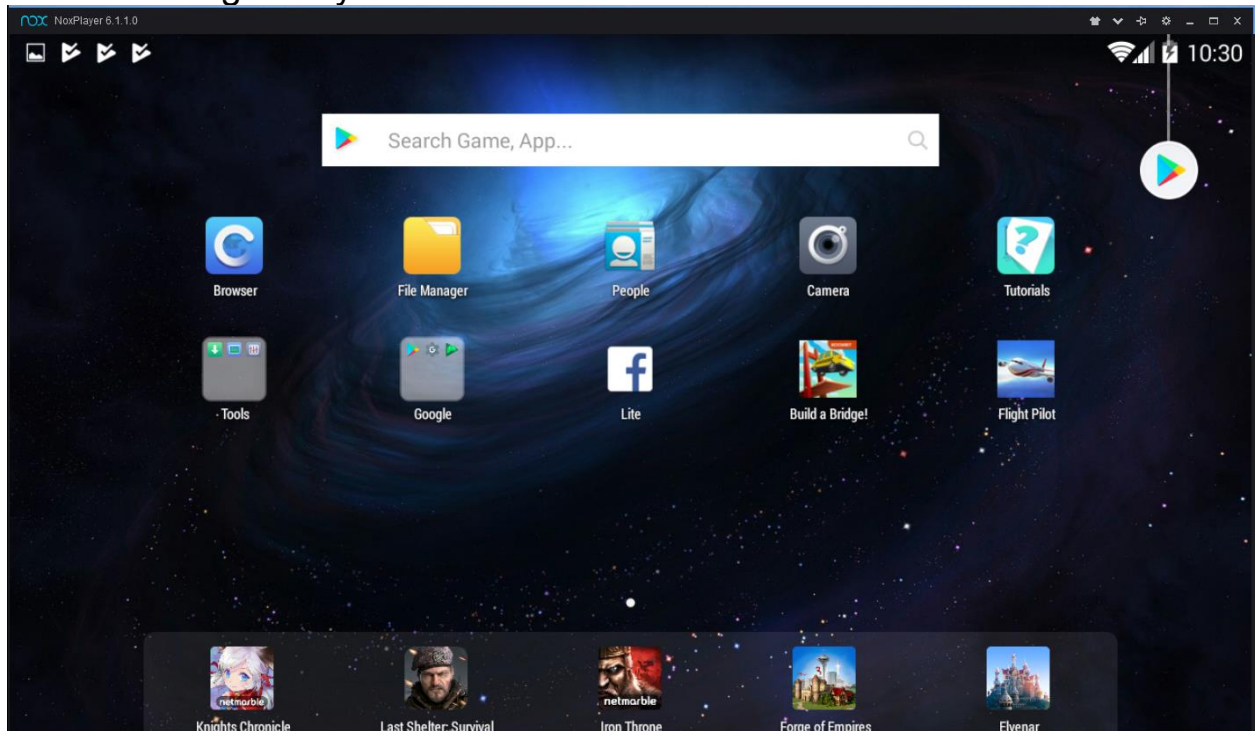
Lu Lin

lin_lu@columbusstate.edu

1. Introduction

Student name: Lu Lin

I use NoxPlayer 6.1.1.0 as an emulator and the home page is as follows. I download two apps: Build a Bridge! and Flight Pilot Simulator 3D from Google Play Editor's Choice.



App 1 name: *Build a Bridge!*



App 2 name: *Flight Pilot Simulator 3D*



2. Critical Analysis for *Build a Bridge!*

i. Overview

Build a Bridge! is a bridge construction game developed by *BoomBit, Inc.* that challenges users' creativity and improvisation to build a bridge that is strong enough to support car, truck, bus, etc. and sometimes monster trucks. During the planning phase the game presents itself with a 2D interface. There the user would select best materials for the bridge and make the most resilient structure as he/she can. When the planning is done, the user would switch to the 3D mode and watch a vehicle drive through the bridge, then he/she will watch if the bridge holds or spectacularly crashes.

The key features of this app include:

- You can choose between a range of materials for each individual bridge such as wood, steel, cables.
- Use the appropriate materials and stay within budget to build the perfect bridge.
- The refined grid system allows to realize with more precision.
- 36 levels of increasingly difficult puzzles (Full Version).
- Normal mode and easy mode as well as the detailed help system provide more relaxation.
- Beautiful, stylized art style and available in 13 languages.

ii. Target Audience

Build a Bridge! is for challenging and creative construction game players. Anyone who is interested in improving logic thinking can use the application. This application is a brain teaser for those who like engineering or want to feel as a real engineer.

iii. Profit and/or Humanitarian Potential

Currently there are about 230,000 users for *Build a Bridge!*.

The application is offered as freemium with limited features, it also provides 9 in-app purchases options including: Unlock All (\$9.99), Easy Mode (\$2.99), Buy Coins Pack 1 (\$1.99), Welcome Offer World (\$1.99), Unlock Space World (\$1.99), Buy Coins Pack 2 (\$3.99), Welcome Offer Small (\$0.99), Unlock All Levels (\$2.99), Buy Coins Pack 3 (\$6.99).

The medium number of 9 in-app purchase prices is \$2.99. Now

make an assumption that if each individual user averagely spends \$2.99 on this app per usage, ads viewed per run is once/run. According to principals in the “Developer’s guide to In-Application Advertisement” (from class website) if the lifetime app usage per average user is 10.5, hence the total potential profit for this application could be $\$2.99 \times 230,000+ \times 10.5 = \$7,000,000+$.

- iv. Positive Characteristics (Review by Xing Lin, Yan Day, and Linc Zhao):
 - 1) Well executed and well designed.
 - 2) Realistic physics engines.
 - 3) The adds are easily controlled and not annoying as they can be easily closed.
 - 4) Fun, addicting and educational about engineering practices.
 - 5) Graphics are more modern.
 - 6) Smooth gameplay.
- v. Negative Characteristics (Review by Xing Lin, Yan Day, and Linc Zhao):
 - 1) Controls are laggy. Especially when you are placing beams.
 - 2) Users have to pay after the first 30th levels.
 - 3) Users have to either have solid know-how on building actual bridges or pay to get hints.
 - 4) App notification controls are annoying, as users need to use Android notification settings to block them.
 - 5) The loading screen for each level takes long time.

3. Critical Analysis for *Flight Pilot Simulator 3D*

i. Overview

This flight simulator application explores a huge open map with realistic plans from single engine props to jets, airliners and military aircraft. There are tons of fun and challenging missions on beautiful scenarios such as emergencies, rescue missions, rough landings, fires, races, etc. This simulator game has free flight mode, but there are also a lot of potentially expensive in-app purchases available – users can obtain a lot of the upgrades for free as well, but it will take a long time.

ii. Target Audience

This application is designed but not only for aviation enthusiasts. Flight simulator games have been stimulating the imaginations of children and adults who want to get realistic experience such as flying from snowcapped mountains to seagull by users' own plane. Family can play together with boys and girls of any age.

iii. Profit and/or Humanitarian Potential

Currently there are more than 2,000,000 downloads for *Flight Pilot Simulator 3D*. The application is offered free flight mode, it also provides in-app products from \$1.99 to \$69.99 per item.

The average number of in-app purchase prices is about \$36. Now make an assumption that if each individual user averagely spends \$36 on this app per usage, ads viewed per run is once/run. According to Quora (<https://www.quora.com/What-is-the-average-cost-per-App-install-in-2016-US-EU-by-OS-vertical-ETC>) the Android app CPI in US (Google Play market) is \$1.91 per download. Hence the total potential profit for this application could be $(\$36 + \$1.91) \times 2,000,000 = \$75,000,000+$.

iv. Positive Characteristics (Review by Lindsay Zhao, Yan Day, and Jia Lin):

- 1) Decent graphics and sound effects.
- 2) Not require any internet connections and users can play it anywhere.
- 3) Intuitive flight controls.

- 4) Users have several different missions to complete and can receive constant mission updates.
 - 5) Targets are clearly marked.
 - 6) In free version users can unlock a lot of advanced options through good game play.
 - 7) Easy to navigate interface.
 - 8) The controls are simple and easy.
 - 9) The planes/jets can be personalized.
- v. Negative Characteristics (Review by Lindsay Zhao, Yan Day, and Jia Lin):
- 1) The body of the plane blocks the view of the airstrip on landing approach, need to add pilot's eye view through the windscreen.
 - 2) Most of the best features require in-app purchase.
 - 3) The airport lights/landing strip lights are not on all the time.
 - 4) The calibration is not accurate.
 - 5) There's a massive load of ads.
 - 6) Plans are too expensive.