**Danmakufu Concerns**

The purpose of this document is to outline some concerns of mine that have risen while learning the basics of Danmakufu, the Touhou bullet hell engine.

Pros:

* It is an engine made for fans to create their own Touhou bullet hell ***SCRIPT,*** which is one of the problems I’ll tackle in the cons section. Still, it is dedicated for creating Touhou style gameplay, which means:
  + It has built-in functions which streamline the scripting process somewhat, it still takes time to learn how to use them.
  + It is optimized for simulating ***thousands*** of bullets on screen at the same time
  + The built-in functions also help with pattern creation, but it still requires a lot of creativity and math (specifically, ***trigonometry***) on the designer’s part.

Unfortunately, this is where the Pros section ends. I have tons to present in the Cons section.

Cons:

1. My number one concern is ***flexibility***, and my number two concern is the ***availability***, or lack thereof, of up-to-date documentation. I’ll tackle them in order:
   1. **Flexibility:** I am aware of the scope of the game we are planning to make, and of the fact that I’m working with the “newest” version of Danmakufu. However, to put it in the simplest way possible, Danmakufu doesn’t allow us to make anything more mechanically interesting than Touhou 10: Characters with multiple shot-types, stages with enemies and mid-stage bosses, and bosses with intricate patterns. That’s it. It doesn’t allow us to be more creative than that and add our gimmicks or cool shit.
   2. **Availability:** The Danmakufu Ph3 documentation provided by [Sparen](https://sparen.github.io/ph3tutorials/ph3tutorials.html) is good and decently comprehensive. Problem is, it kind of ends there. Most of the other sources he provides have either been deleted or are completely outdated and abandoned. He also has a video tutorial series, but it’s only 5 videos long and ***11 years old.*** Other sources I found are the [Danmakufu Official Wiki](https://dmf.shrinemaiden.org/ph3/), which does nothing but explain what the built-in functions do, and the [Maidens of the Kaleidoscope forum](https://shrinemaiden.com/index.php?board=5.0;sort=last_post;desc), for asking questions, grabbing free assets and the like.ChatGPT and other AI are utterly useless; I’ve already done some testing with them.

As the lead programmer for this game, it makes me worry. I am not even sure I’ll have enough learning material to create something adequate, never mind innovative.

1. Working with .txt files is not pleasant. There is no IDE, like visual studio. All you have is a Sublime Text package made by Sparen for Danmakufu scripting, which makes the experience tolerable. Without it, it would be downright atrocious.
2. Even if we were to make a damn amazing game with Danmakufu, we cannot market it. Licensing with Danmakufu is complicated with lots of grey areas, and most fan made projects in Danmakufu are one-stage games or just a boss stage, usually made for a competition.
3. This is a Fontys concern. I know you’re Saul Goodman when it comes to selling people shit, but I don’t know if we’ll be able to meet the learning requirements for the Game Design semester. Rather, I’m not sure we can all be evaluated equally and appropriately. There are workarounds and nothing is set in stone yet, but still, something to think about.
4. Let’s be real. We will not be working with Danmakufu again after this. This means that all the time spent learning this damn engine will amount to nothing by the beginning of the next semester. Moreover, it’s hard to sell people on our game making skills in the future by telling them that we made a bullet hell game in an engine that hasn’t been updated since 2015. Yes, it’s still an accomplishment, but university and career wise, people are looking for skills in industry-standard game engines.

It may sound I am currently opposed to Danmakufu. I am not. I am simply looking for the best way to create our own danmaku game and tell our own story set in Gensokyo, and I think Danmakufu might not be the way, not with the way things stand.