

# Ariosto – A Story Engine for Games

**Initial Phases of Research Project**

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*Ludovico Ariosto (1474-1533)*

# Goals

My research goal is to develop a procedural "quest" engine for games that requests meta-data about the game world from the game engine via a standardized callback API, and then creates sensible quests that fit into the game world. Ideally, the stories created by the engine would equal or even surpass purely static content, but simply augmenting static content would represent a significant advance of the state of the art.

- Procedurally generate satisfactory "quests"
- Directly (via questionnaire) and indirectly (via measuring actions) measure player satisfaction/immersion, compared with "purely static" quests
- The goal is not "stickiness", and developing measures that tease apart positively compelling vs. merely addictive content would be a potentially useful contribution
- Iteratively improve the engine based on testing; if the engine is able to surpass static content, then test versions against each other.
- Create at least one commercially viable game.

# Scope

In order to develop Ariosto, I will either need to create a new game engine or re-use an existing game engine. I have available to me two game engines I have previously developed, as well as a game engine I am in the process of developing. The three engines are quite diverse in nature, so a story system that could work with all of them would be quite convincing. Another option would be to use something “off-the-shelf” (there are plenty of inexpensive options that would suffice for proof-of-concept).

Ideally, the amount of time/effort devoted to simply creating the game engine should be minimized as the story engine itself is a major undertaking.

I propose to develop using Unity 3D Pro 4.x/5.x and primarily target iOS and Android platforms.

I propose to explicitly document the algorithms developed, and to use open, cross-platform data formats (e.g. JSON) to capture all relevant data, allowing re-implementation for any plausible target platform.

# Interdisciplinary Approach

Developing Ariosto entails a combination of

- software engineering,
- data design,

- story analysis, deconstruction, and writing,
- a broad understanding of game development and design,
- all the usual content development needs for a modern mobile game:
  - 3D modeling, texturing, animation;
  - audio design and engineering;
  - music composition and performance;
  - level design

There are a number of faculty with relevant expertise; my plan is to seek mentorship of a faculty member who can address my weakest area(s) (i.e. audio and music).

## Project Environment

Initially, the project can be developed on one or more personal computers, and make use of cloud servers (e.g. for source control) where appropriate.

The project source code will be hosted on bitbucket or github. Where large files need to be shared, I will set up suitable servers. There is already a [project website](#).