



Narrative and Simulation in Interactive Dialogue

Emily Short

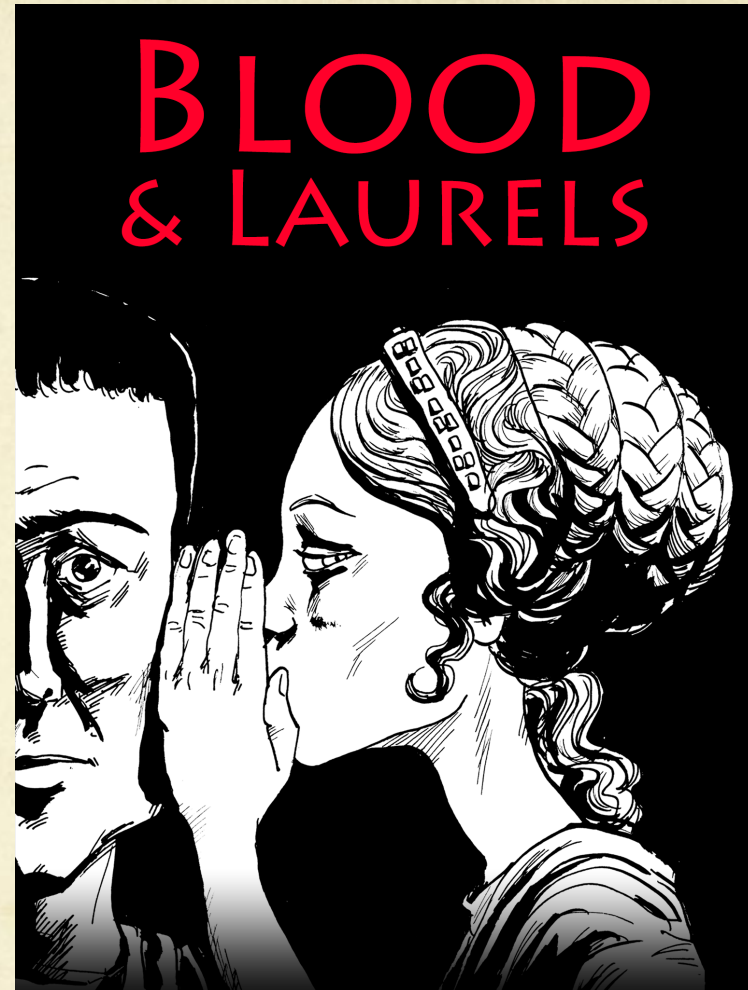
@emshort

<http://emshort.wordpress.com>

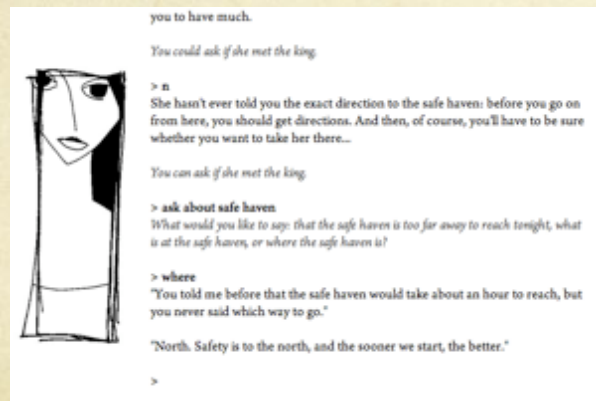
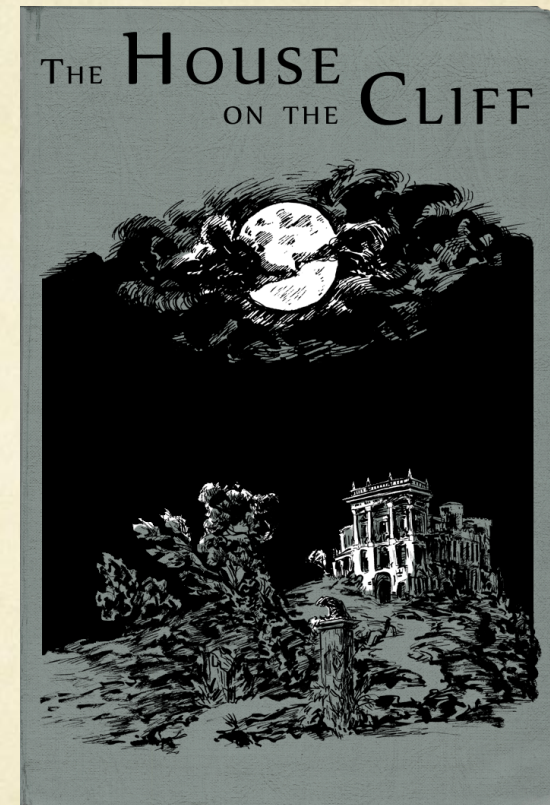
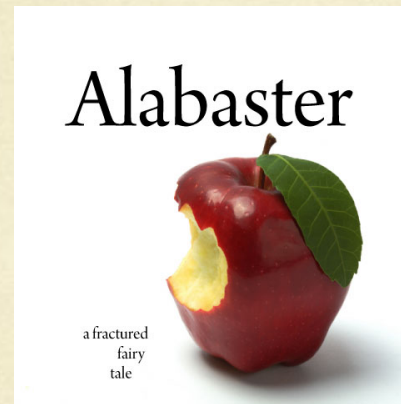
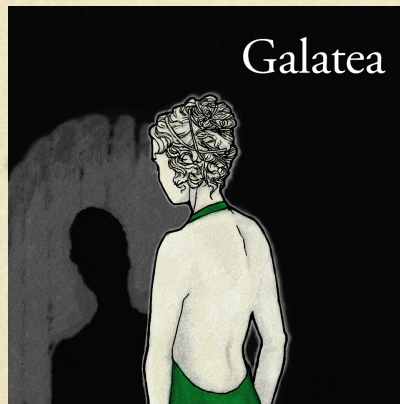
Blood & Laurels

Cults, prophecies, poison,
intrigue.

Imperial tropefest.



Prior Work



Parser-based interactive fiction

Choice-based,
running on Versu engine

Conversation Design Goals

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- Expressiveness: Player and NPC can signal emotional states as well as information
- Pacing: story moves forward on its own when the player is out of things to say
- Characters appear as entities with convincing emotional states
 - Player agency involves manipulating characters
 - Player responds to characters in non-utilitarian way

Tool Goals

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 - Easy to generate *large* quantities of content, **at least 10x** as much as the player is likely to encounter in a single play-through
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- Testing
 - Easy to verify that there are no “stuck” states from which dialogue cannot proceed

“Threaded Conversation”

- Quips represent actual lines of non-repeatable dialogue (“The Emperor is looking ill these days”)
- Quips are tagged with one or more topics
- Relations between quips (direct and indirect following)
- Factual and emotional data associated with quips
 - Prerequisites
 - Outcomes

WEATHER

"I LOVE THIS WEATHER!"

"I PREFER RAIN."

"IT IS NICE, ISN'T IT?"

"IT WAS SUNNIER IN
HAWAII."

HAWAII

"I WISH I COULD AFFORD
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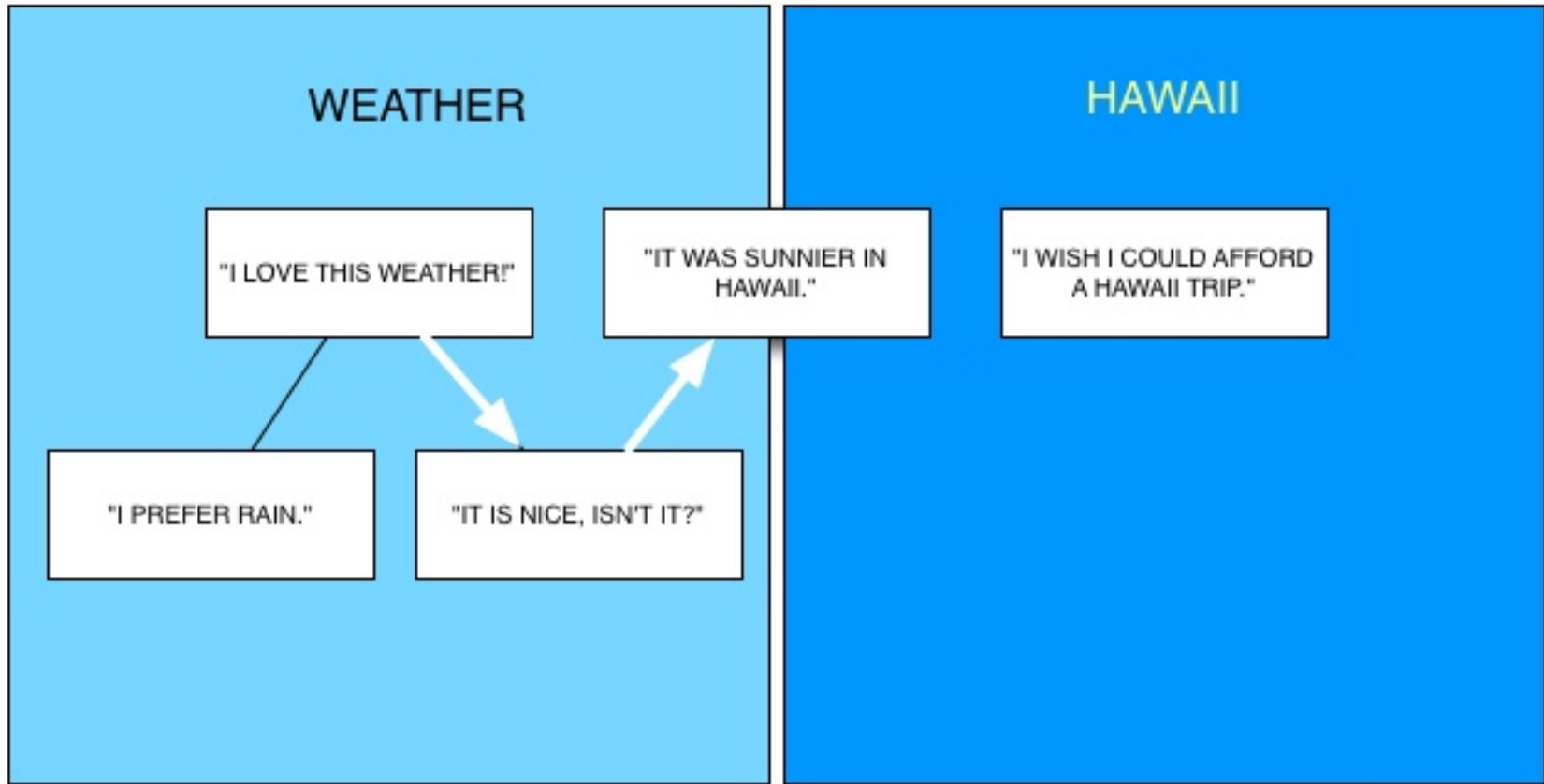
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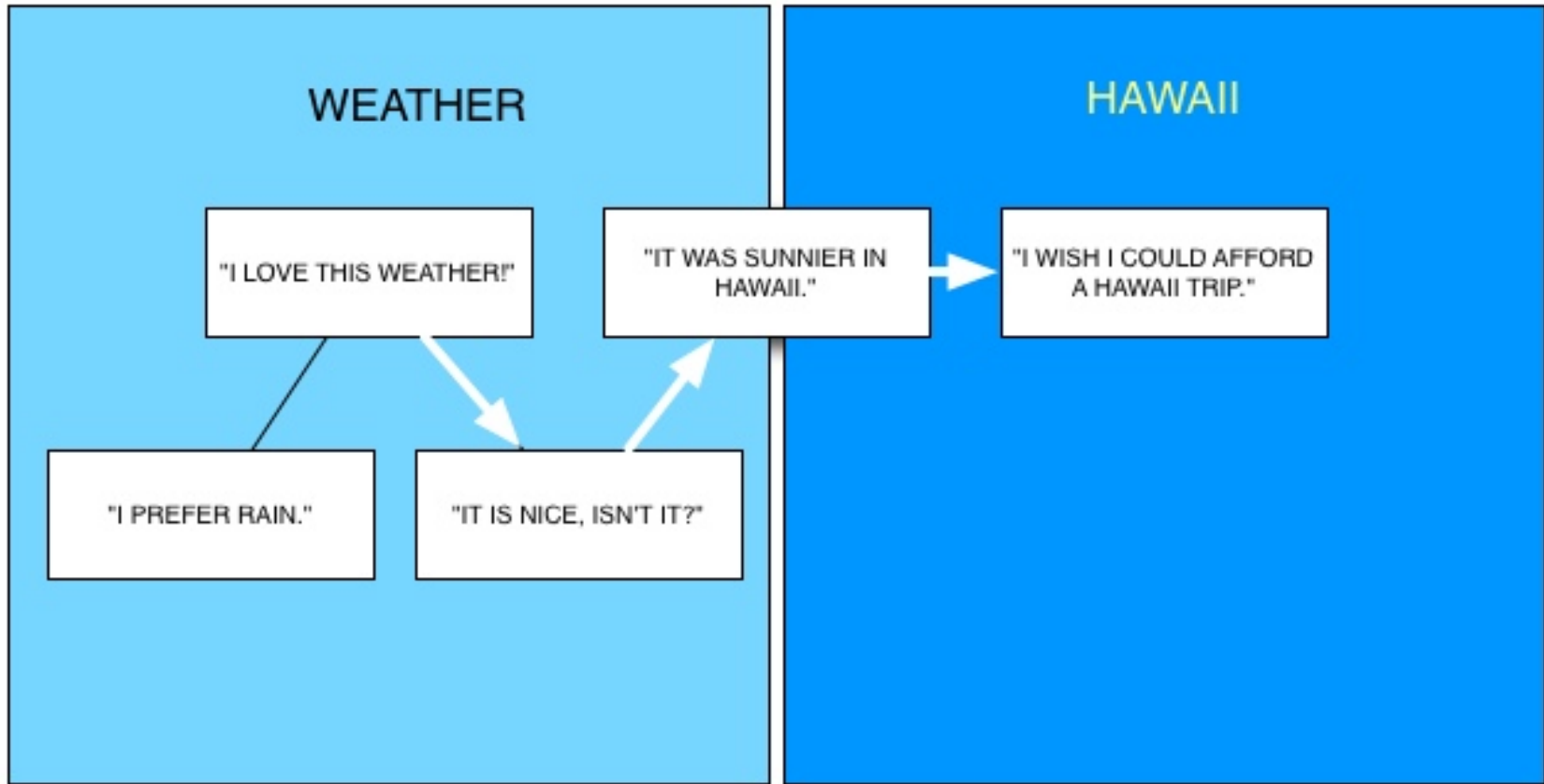
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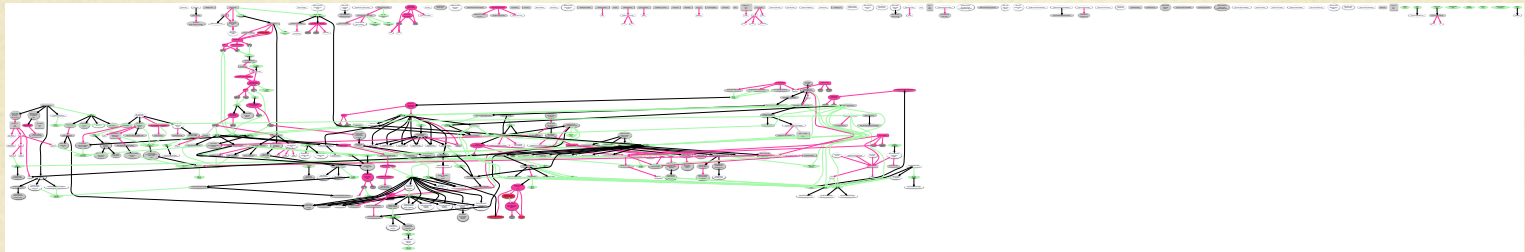
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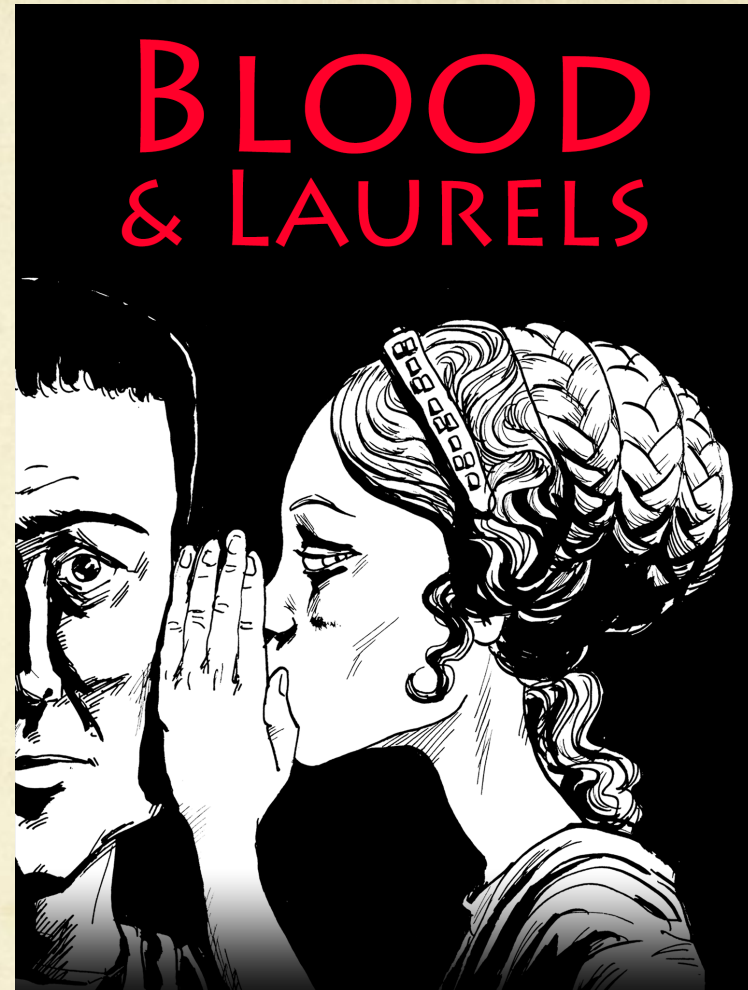
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Blood & Laurels

Versu AI engine + Threaded
Conversation dialogue model

More about Versu at versu.com



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- Accessible, book-like style
- High-stakes thriller plot
- Numerous achievements for the player to unlock
- Finished, illustrated, and ready for QA in 2 months

Areas of Assessment

- Authorability (speed, scope)
- Pacing/Narrative Coherence
- Agency based on “Social Physics”
- Character Persuasiveness / Empathy

Library Development: TC

- Threaded Conversation-style dialogue marked up for Versu to indicate emotional content and social actions

Conversation

- Interrogate Artus about cult (tagged be_assertive)
- Tell Artus about the Emperor

Other Social Practices

- Flatter Artus
- Pose assertively

Choose an action



Wait for Gila to speak

Say you distrust Gila and you think she should be removed from the situation

Say that Gila honors the gods

Say that Gila will not want to lose her place at the temple

Gila's accepting the proposal of marriage...

Hug her

Acknowledge that she said yes

Grin



Library Development: TC

- Topic-specific exposition (“memories”)
- “Filler” dialogue relating to various topics that appear in a number of scenes
- “Pause” text for when the conversation thread had been dropped and we want to allow a transition

Library Development: Scenes

- Exploration scenes – end when the player has either explored dialogue or stopped doing dialogue exploration
- Forking scenes – end in several ways when specific things are achieved
- Key decision scenes – very short decision points with focused interaction

Tools Development: Prompter

- Developed with Graham Nelson, creator of Inform
- Tool for creating Threaded-Conversation-style content in a familiar screen-play like format

*** Scene - More instruction of Marcus ***

(The scene is about the emperor, the temple, and the plot. Conversation is restricted.)

Narration: Marcus stares at Artus.

>> Artus continues, looking into the fire rather than at Marcus's face.

>> [Artus] says, 'I have a question for you to put to the oracle of the dead. You are to ask for a consultation.'

(About the temple and Sophronia.)

Marcus: Jupiter. Is this to do with the omen that Sophronia saw? I did not think you took it seriously at the time.

(He becomes visibly surprised - "I would not have thought Artus was much impressed with such a conjurer's trick.")

-- Ask whether this is to do with the egg

Artus (impiously): Oh, the egg! No, nothing to do with that. A dead chick is not enough to send me scrambling to oracles.

-- Say you didn't

(a) Marcus (piously): Sophronia thought it was something serious.

-- Point out that Sophronia thought it was serious

Artus: It is Sophronia's business to be affected by such things.

(b) Marcus (impiously, cynically, cleverly): I did wonder whether perhaps the egg was a prop of Sophronia's own creation. A moment of theatre, perhaps, to enliven your banquet.

(He becomes visibly amused - "Sophronia seems a strange character.")

-- Hint that possibly Sophronia planted the egg herself to look interesting

Artus (very disloyally): The Emperor is a tyrant and a madman. His appetites are disgusting, his use of Imperial troops misguided, and even his taste in dress is not above reproach. Someone will kill him sooner or later. I would prefer that his replacement not be another mad tyrant.

(a) Marcus: His taste in dress...?

-- Ask what is wrong with the Emperor's clothes

Artus: He wears tassels on his leg, like a gladiator, to mark how many great men he has defeated. Gold tassels for men of the senatorial class, silver for equestrians.

(b) Marcus: I see how it might displease you to watch the Emperor make blunders with the army.

-- Sympathize with Artus's dislike of seeing the troops misused

The goat, maybe guessing what is about to happen, craps on his right sandal.



The temple forecourt

The courtyard is surrounded on three sides by the sacred wall and on the fourth by the facade of the great temple. By the doorposts, holy laurel grows. A statue of Proserpina watches over the scene.

Then Gila comes out of the shadow of the temple door and approaches him. She looks no different than ever.

Gila (to Marcus): The temple thanks you for your offering.

Marcus: Well they should. It was a bother to get up here. I should have hired litter-bearers for it, heavy as it is.

Gila: It's skinny.



Act Now

More

possibly not Marcus himself.



The dining hall

Slaves stand nearby to see to every necessity; the couches are arranged around the tables, and the nearest ones are occupied by familiar people: Veronius on one side, Artus himself, Artus's perhaps mistress Sophronia.

Artus's dinner tonight is a very different affair from the small party a few nights ago, when only a few of Artus's clients and Sophronia were in attendance.

This is a banquet on a grander scale, thrown to impress political allies, heads of great families, members of the senatorial elite. Many of them come from older and wealthier families than Artus's; some would not ordinarily attend dinners thrown by a mere Spanish soldier, however successful at war.

It has taken much work to bring them all here.

The slaves have been hard at work for days. Snow has been brought down from the mountains to make cold desserts. The best wines have been fetched up out of the cellar. Artus has had some elaborate set-piece meal.

Veronius
Veronius looks sad. 'Marcus just turned me down.'



Act Now

More

Finished Product Stats

- 2503 quips in ep 1, 2460 quips in ep 2: roughly 10x the content of *Galatea* or *Alabaster*
- 172 scenes in ep 1, 238 scenes in ep 2
- 240K words of Prompter script
- Automated testing to discover scenes which did not conclude for some reason

Ease of Authoring Content

- Successes
 - Rapid creation process
 - Strong sense of flow
 - Considerable variation within a scene
- Problems
 - Rotating agent responsibility in Versu made some dialogue bits inaccessible without hacking

Pacing and Plot Coherence

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- There's a great deal of room here to affect the pacing of a scene... [it offers] a wealth of tonal interactivity and allowance for subtle performance - PocketTactics
- Blood & Laurels made me feel more like an improviser than a reader... - New York Times
- The interface gives a sense of kinesis to the story—something is always happening... the story is about being swept up in events much larger than yourself and attempting to gain control of them. - Storycade

Pacing and Plot Coherence

- Successes
 - Pacing generally successful
- Problems
 - Juxtapositions of dialogue and setting investigation occasionally surprising
 - Occasionally a player did not understand why a piece of dialogue became unavailable again; prototyped Versu *Galatea* UI addressed this

Characters and Agency

- When it works, it works. There are dinner parties where people will think you impetuous and rude if you talk too much, situations where you can act dumb in order to influence others to drop their guard, times where you have a choice between the same action with different motivations. – Storycade

Characters and Agency

- When it works, it works. There are dinner parties where people will think you impetuous and rude if you talk too much, situations where you can act dumb in order to influence others to drop their guard, times where you have a choice between the same action with different motivations. - Storycade
- But: [Veronius'] relationship with Marcus doesn't do much to affect the plot of Blood and Laurels. - PocketTactics

Characters and Agency

- Successes
 - Ability to see character thoughts and expressions helped
 - “Pushing your luck” as a play experience was often satisfying
- Problems
 - Players did not always understand how character manipulation drove scenes

Character Persuasiveness

- Versu isn't at the point where it's able to make this emergent behavior interesting to read. The most obvious is in the realm of romance... all of them feel fairly perfunctory in execution... The vast, vast majority of Blood and Laurels's passages—the ones directly under the author's control—are wonderful. **The emergent bits feel like static.** – Storycade

Character Persuasiveness

- [On occasion, t]he stars aligned such that the prose and the choices meshed in such a way that I felt I experienced a “text holodeck”. However, I’m fairly certain **the parts I felt inspired by were heavily scripted. When Versu as an engine clearly took over... it hit solid as a rock. ~ Jason Dyer**

Character Persuasiveness

- Problems
 - Players rebelled against the reuse of “repeatable” bits of conversation
 - Some social practices (flirtation, anger) felt too generic

Design Issue!

Too systematic?

Some social practices
(flirtation, anger) felt
too generic

Not systematic enough?

Players did not always understand
how character manipulation
drove scenes

Possible Future Solutions

- Modeling narrative values explicitly in utility scoring
- Multiplicative rather than additive approach to conversation and other social practices
- More abstract visual clues for the player about narrative progress

Multiplicative Approach

Additive

Conversation

- Ask Artus about cult
- Tell Artus about the Emperor

Other Social Practices

- Flatter Artus
- Pose assertively

Multiplicative

- Sycophantically tell Artus about Emperor
- Flatteringly ask Artus about cult
- Assertively tell Artus about Emperor
- Assertively ask Artus about cult

Communicating Plot Position

- Explicit but abstract visualization of possible endings for the current scene & how close NPCs are to committing to one of those endings

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Veronius

Stab Marcus Swear loyalty



Concluding Questions

- If we're modeling multiple kinds of system (narrative, agent relationships and emotions, conversation flow, protagonist intentions), which of these is most directly accessible to the player?

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- If we're modeling multiple kinds of system (narrative, agent relationships and emotions, conversation flow, protagonist intentions), which of these is most directly accessible to the player?
- Does the player understand how these systems fit together? Does the UI support that understanding?
- Which offers the highest fidelity? Are other, lower-fidelity systems providing output in the same channel?

Resources

- Versu.com – papers on Versu and Prompter
- “Threaded Conversation” library for Inform 7
- Emshort.wordpress.com – my writing on interactive storytelling, including “conversation” subcategory for articles and post mortems on conversation projects
- emshortif@gmail.com or @emshort to contact me