Coherence

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Abstract. Yes, tools matter.

1.   Introduction

In 2016, I wrote some notes on *Getting Started With Hypertext Narrative* [1] to help new users of Storyspace 3 understand the important, although unfashionable, idea of interactive storytelling and to explain sculptural hypertext [2] to Storyspace users. Those notes often focused on issues the film industry calls *continuity* and we call *coherence,* and that involve concerns for consistency and causality within a reading.

Early hypertext fiction writers were not chiefly concerned with narrative convention [3]. Later discussion was often dominated by the concerns of immersion and its discontents [4;5]. It seemed in 1988 that we knew all we needed to know about the doubtful pleasures of the narrative line, but in 2018 we are less confident.

These notes address some craft problems I encountered in an unfinished hypertext thriller. In a thriller, causality and coherence matter: we are on the run, and if we could wish our nemesis away there would be no thriller.

2.   Overture

The writer begins today, as writers do, in the middle of the story. This is a story about a man who does not know himself. So far, perhaps a third of the story has been written down, though it is hard to say exactly. The writer doesn't know: he seldom does.

This will be an interactive and digital story. I build tools for writing, and occasionally I use those tools to tell stories. Using our tools is, I think, a sound practice [6]. By trying to paint, we learn about painterly problems that might escape us if all we knew were art museums. This kind of learning does not depend upon talent or inspiration: it only requires that we do our best and pay attention. In these notes, I would like to call attention to some difficulties I encountered in writing a particular story. I suspect that these difficulties are common, but they are not well represented in our literature.

It makes sense for us to reflect on our own experience of our tools. We know our tools, and so our experience using them relates to their underlying affordances, not to the happenstance of novice confrontations with a new medium or a new interface. We

know how hard we have tried, and so our observations are not muddled by the many and various calls on the attention of students or clinical test subjects. We are sympathetic to the digital, or (at any rate) we do not fear it, and so our encounter is with the tool itself, not with The Digital Other.

3.   The Grimm Shadow of Vladimir Propp

The young man who does not know himself is TYLER FRIEND, a low-ranking American cyber-security official employed by the U. S. Department of the Treasury. He is on vacation, an American in Paris. He is accompanying his wealthy college friend, KATY STERNWOOD. Katy and Tyler meet a Burmese military hacker MU LAI in a subterranean hacker bar in the Sentier. Police raid the bar in search of undocumented aliens, and then a profound misunderstanding leads Tyler to leave their custody without permission but with the fortuitous assistance of a passing crowd of protesting medical students. Among these students he finds Mu Lai; this would be more reassuring if Mu Lai did not openly despise Americans. Nonetheless, Mu Lai undertakes to help Tyler evade pursuit.

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Why must the writer afflict Tyler in this way? Formally, the writer requires a transition. The first third of the story has established that Tyler is likable and loyal, but he is also inclined to passivity and deference. Katy — rich, assured, and capable — is an ideal foil for this exposition, but if we do not isolate Tyler soon, the story will be hers, not his.

Stylistically, the writer is reaching for a contrast to the police interrogation of the preceding episode. Interrogations work well in hypertext; they lend themselves to tangential dialogue and to a call-and-response rhythm that makes short lexia natural[7]. Interrogations are claustrophobic, with a static cast and a fixed setting. We need to stretch our legs. A chase, led by an untrustworthy guide through the dark streets of a hostile pre-dawn city, will get us moving.

These are choices: stories are designed. We could accomplish our goal in other ways. Indeed, we might choose to address a different problem here and postpone the protagonist's isolation to a later episode. We might accept that Katy is simply more interesting than Tyler and recast the entire structure.

Propp's shadow looms large over interactive digital storytelling, and our literature often take stories (or their components) as elemental natural phenomena. This is not my experience of fabula/story [8] or, indeed, my experience of software design. Drawing up boxes and arrows in the absence of real code and real applications is the mark of the inexperienced architectural acrobat. Story is equally malleable: we can always have a man come through a door with a gun in his hand [20].

4.   Back To Front

Katy came to Paris to find a suitcase of manuscripts that was lost in 1922 by a writer's wife at the Gare de Lyon. Tyler came to Paris because he had been visiting Katy, and she (suddenly, unexpectedly) wanted to go to Paris.

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Story and plot, *fabula* and *suzjet*: the writer can change either. The storytelling literature has tended to dwell on story, the hypertext literature on plot [8; 9]. Historians and journalists cannot change story, but other writers are free to vary both. Each change may introduce new constraints: we may decide to begin long after 1922, but that choice requires that, at some point, we explain what happened long before.

5.   Dramaturgs, Storylets and State

While he was detained by the French police, Tyler had a conference with MR. PHELPS, an official from the American Embassy who gave him bad advice. Later, the Embassy denied any knowledge of Phelps. (This happened to Tyler, but the writer is uncertain whether this mysterious episode will prove necessary to the story.)

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While it is tempting to introduce a dramaturgical system to govern interactive digital storytelling and to enforce constraints as the story unfolds [10], governing modules are not entirely satisfactory. If the reader has (apparent) free will, the governor takes on the role of a predestinarian god who punishes sin and corrects the wayward. If the narrative is meant to flow from emergent behavior [11], the governor interferes with emergence. When difficult moral issues are at stake, the governor's decisions may seem capricious[12].

Storylets — small, independent narrative episodes — can remove the need for a governor while maintaining coherence. Each storylet is nearly independent: save for the protagonist's intervention, they have their own cast, their own start and end. We visit the storylet, and then we move on. Though the storylet is well adapted to digital storytelling, it has a history that runs from *Parsifal* to *Star Trek.*

We can relax the constraint on storylets by retaining more state. If the characters as well as the protagonist can retain their scars, we may meet them again.

6.   You Cannot Spend The Same 27€ Twice

Tyler has 27€ in his pocket. Tyler is hungry; should he stop at a café? Should he instead purchase a baguette at a nearby *boulangerie*? Should he try to buy a weapon? A train ticket? He cannot spend the same euro twice.

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Following the conventions of interactive fiction, we might offer the reader diegetic choices on Tyler's behalf. Diegetic choice divides the traditions of Interactive Fiction and Hypertext; modern Twine usage combines both but seldom engages with either

[15]. The design of original Storyspace guard fields made counting statistics difficult [16], and so discouraged extensive diegetic choice and promoted a lyrical view of the link [17]. IF tools made different choices. It should be noted, moreover, that this kind of coherence (at least) inheres neither in the writer's intentions (if they matter) nor in the reader's reception, though readers will tend to invent theories to explain minor lapses.

7.   Revision And Chekhov's Gun

Tyler and Mu seek refuge in a tiny falafel shop, but the police are not fooled. Capture seems inevitable. Tyler's fluent and witty Arabic convinces the shop owner not only to divert the police, but to give Tyler and Mu *djellabas* to disguise themselves.

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An important formal constraint on Western narrative is that unusual abilities or equipment must be disclosed to the reader before they are used [18]. In a non-sequential interactive narrative, therefore, the reader must not encounter this scene before Tyler's facility with Arabic is established[1]. When composing a conventional novel, repairing this kind of mistake is a staple of revision, but our literature is almost silent on the subject of revising interactive stories and our tools do little to facilitate this correction.

8.   Talking About Dialogue

"Look at this!" Tyler exclaimed, but Katy had already left.

Simply getting through a scene requires that we keep track of the cast: who has entered, and who has left? This is easy enough in linear prose, but in sculptural hypertext each entrance and exit introduces a constraint that affects every node in the episode involving that character. "Involvement" in this sense can itself be tricky; if Katy and Mu are discussing Tyler, it matters whether Tyler is present even if he does not participate in the dialogue.

Though very fine-grained sculptural hypertext lends itself well to dialogue, managing turn-taking cues requires a good deal of book-keeping. This could doubtless be

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[1] In practice, I find that avoiding *deus ex machina* is at least as challenging as averting more familiar coherence problems. In particular, it is harder to patch; we can always find a way to get the protagonist the missing key or a few euros, but establishing his knowledge of Arabic is harder to do in a pinch. Conversely, *Chekhov's gun* suggests that, if we have established that Tyler knows Arabic early in the story, we ought to use that knowledge later, and if the reader never encounters the falafel shop, our effort to establish the ability might never pay off. We may have no better option in the general case than to minimize violations and to relax this constraint so that it applies strictly to an *ensemble* of rereadings rather than to each individual reading. If in some reading we learn that Tyler speaks Arabic, perhaps we need not establish that separately in every reading.

managed with simple predicates, but neither the need for such predicates nor the details of their construction can be readily found in our literature. Here, clearly, tools matter.

9.   Far Beyond Locks And Keys

Tyler works in a government office. His job requires frequent meetings with bureaucrats, administrators, and military liaisons. Everyone has a role and a uniform. As he gets farther from Washington D.C., this changes; in particular, almost everyone has an unexpected gender, and circumstances keep forcing Tyler to change clothes.

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Characters should not spend the same €27 twice. Dialogue involves characters in the same place; if a character has departed, that character cannot speak. These are all constraints imposed by the story world. Other constraints are imposed by the fact that this is a story, not an annal. The story collects pertinent, significant events, not merely a bundle of things that happened.

Linguistic constraints pose unexpected problems. Mu Lai's gender is not disclosed to Tyler, and this (among much else) makes Tyler uncomfortable[2].

Finally, we may consider thematic coherence. In the thriller, changing clothes or uniforms signals the protagonist's change of goal [21]. *Fallen London* is dark, the darkness is literally everywhere, and we cannot turn up the lights even if that would be convenient for a particular scene [19]. In *Those Trojan Girls,* characters are constantly reminded that they are penned in by rules and boundaries; this applies to the faculty and to the soldiers of the Occupation as well as to the school children [7].

10.   Coherence

As the story begins, the audience is on our side: they have paid good money for this story and they want to like it[3]. To retain this good will, we must either obey causality and convention or we must be seen to visibly defy them; readers will welcome either, but they resent casual judgments and accidental slaughters. This choice constrains both the future and the past in both the story and the plot; because the plot's past can no longer be changed, the best we can hope to do is to minimize the damage.

Readers of these notes have asked, naturally enough, for a ringing conclusion. It would be easy to argue from this catalog of challenges and conundrums that our impulse to make stories that are interactive and digital is misguided, that interaction will forever war with narrative, that the sequential nature of language conflicts with inter-

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[2] Writing about Mu Lai without disclosing gender was exquisitely difficult in English; in other languages, it might be impossible.

[3] This premise does not always hold for students, however, and in the long run, students are the predominant readers of literature.

action. I don't think that's true; a form capable of *afternoon* and *Sleep No More* is surely capable of a great deal.

Crucially, we must think about coherence in plot as well as story, in planning dramaturgy as well as planning to achieve protagonist goals. To our regret, these issues are not yet well represented in our systems or our literature.

Acknowledgments

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