

Authoring Issues in Narrative Digital Interactive

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Abstract. The verbicide is intentional. Deliberating about successful IDN experiences especially with novel interaction forms introduced by beyond-the-desktop interfaces, the focus of this chapter proposal is on discussing the design of the "interactive" experience as an authoring task within an integrated creative process for Interactive Storytelling.

Keywords: Interactive Narrative, User Experience, Authoring.

1 Chapter Proposal

In the proposed chapter to discuss "The Authoring Problem", I want to emphasize that authoring IDN means the creation of a holistic interactive narrative user experience. While there are many positions (including my previous [1]) about how to conceive, model and "write" interactive stories and its narrative elements, the focus here is on including the authors' responsibility for an overall interactive experience within the creation of Interactive Narrative.

Interactive storytelling apparently has many roots that open out to a big open space of possibilities. Beyond its roots in hypertext [2], other roots started in novel interactive media categories that allow a multitude of interaction styles beyond following a link by clicking [3].

Procedural content requires authors to "program", at least to use authoring tools that ease programming by reducing brackets and machine-centered routines, but still with the affordance to think procedurally [4]. Novel interaction technologies that rely on more sensors than the pointing device, such as VR, AR, or tangible environments such as playful robots, as well as locative or speech technology, also offer novel ways to tell stories with them. While it often may seem (to me) like engineers' ideas to offer these platforms to "storytellers", indeed there also has been a long tradition of interactive art embracing these as novel forms [5].

At the same time, interaction design for these novel technologies is a full discipline of its own. It requires fundamental knowledge in its dedicated realm of principles [6] and again, implementation skills with the technology (programming or special authoring tools). Telling stories with these novel media forms also means inventing new ways to tell stories, and having to author interactions combined with procedural and context-dependent story content [7].

Authoring is a widely-used term. Analyzing the state of the art concerning the authoring problems in mixed reality contexts, we find a plethora of tools [8]. These mostly focus on the mere interaction part, and – for ease of use – often use content templates that are catered to types of applications in educational setting or maintenance scenarios. The target group is often technophile non-programmers who want to adapt these templates for lessons or instructional material. Ease of authoring mostly means replacing placeholder content with "own" content [9]. The templates often resemble a certain task structure that would turn away or at least restrict creative storytellers.

Creation in Interactive Storytelling rather means that authors want to define those structural patterns themselves. But can these be defined first and later be filled with narrative content? [10] Or is it more likely to start with a narrative "nucleus" [11] and build a suitable interaction pattern or structure around it? The process is as holistic as the aspired final user experience. Further, this is not only "art", as a crucial part of it also demands to care about engineering the accessibility of the narration. Novel and unusual interactions may require users to have a learning curve to get access, including to enjoy adopting afforded actions, in the sense of J. Murray arguing that it is a socially emerging construct that we "script" the actions and expectations of the interactor [12].

This proposed chapter will dive into the relationship between creating interactions and narration, and what this means for developing authoring tools, especially in a research context, in which "forms" are still to be found. This discussion includes:

- Novel interactive media calling for unique types/kinds of stories: M.L. Ryan explained how different plot types (epic, dramatic, epistemic) could evolve depending on different media [13]. Deep characters or stories with complex causal relationships, including playful resolutions of unreliable/conflicting explanations, require long story consumption times (book, film series). Likewise, a medium that requires the audience to hold up a smartphone (AR) or walk distances (locative) would probably also have influence on the possible/impossible and suitable depth of story content. On top, basic interactions (navigation, searching, browsing, conversation, also embodied actions) could be either part of a story or just a cumbersome requirement to unlock otherwise media-independent story bricks. We not only design a story, but also how users spend their time.
- The meaning of Authoring in this context: Authoring points to all stages of creation, with components of *ideation* and *realization/implementation*, while this process also needs to include iterative cycles such as *prototyping*, *testing* and *improving* (which means *debugging* as well as potentially adjusting interaction and story concepts after inspecting their outcomes with independent test users).

In conclusion, Interactive Story creation in the realm of non-standardized interactive settings means to create a narrative and to create a designed interaction mode, optimally combining these two creative fields. Crucial design decisions to support (for authorial teams) are the choice of suitable interaction patterns and styles that fit the gist of the story – and vice versa, meaning the choice of suitable narrative elements that fit the interactive experience. Authoring tools need to support iterative prototyping by shortening the design cycle between editing, evaluation and redesigning. This points beyond tools for just "writing".

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