

# THE GENARRATOR AUTHORIZING EXPERIENCE: A UX EVALUATION APPROACH.

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The Genarrator platform provides a user-friendly online visual interface toolset for the creation and hosting of interactive hypertext multi-media stories. Offered as a free-to-use tool, it currently hosts more than 1300 working narratives. While there is existing research on the reader experience with this kind of technology and the narratives it offers, comparatively little is known about the author experience. To further explore the findings from an online survey involving 24 interactive narrative undergraduate and postgraduate students who had used Genarrator for an assignment, we decided to conduct a small usability test study with those students who previously provided feedback on the tool. We employed observations, interviews, and analysis of their story-creation process to understand their overall experience. We conclude that our user experience approach, albeit limited, allowed us to observe usefully how authors use Genarrator and recognise conceptual differences between how we as tool creators see the tool and how our participants as authors view it as users.

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## 1. INTRODUCTION

Genarrator ([genarrator.org](http://genarrator.org) as of 11.9.23) is a free-to-use and free-to-publish online hypertext authoring and publishing tool, offered via standard internet browsers. It enables authors to create interactive multimedia and branching-path narratives, via a visual interface, initially loosely modelled on PowerPoint so as to be easily accessible to ‘non-technical’ authors. Genarrator was launched in 2010 and later redeveloped on the basis of reader-response research with a range of Interactive Digital Narrative (IDN) examples and a diverse selection of readers, in addition to ongoing use in education and community settings (Pope 2006, 2009, 2010, 2020; Gyori and Pope 2021).

The Genarrator site now currently hosts around 1300 completed narratives, albeit technical support has now ended, meaning that, for now, most narratives will not play. Genarrator offers text and media-asset organisation functions, a hyper-linking system, and a dynamic map function which allows authors to continually view and organise the linked-slide (node) structure of their narrative (see fig. 2). It also allows authors to control plot via ‘display rules’ which hides/reveals narrative items or whole nodes, accordingly, as the end-reader completes pre-requisite phases of the narrative. Media assets produced outside of Genarrator, in for example Photoshop, are readily imported into and stored online in Genarrator, and many design and editing tasks can be carried out online within Genarrator, with all completed narratives published and curated on the Genarrator website’s homepage (see fig.1).

Like many IDN authoring tools, Genarrator is an authoring tool lacking any formal user experience (UX) evaluation (Hargood et al 2022; Kitromili et al 2018; Kitromili 2021; Kitromili et al 2022). There is thus a significant gap in our understanding, and we wanted to take a small step forward in conducting a small-scale evaluation using Genarrator, since it has been used in higher education and in community settings since 2010 and has produced around 1300 fully functioning IDNs. A further motivation is that funding for Genarrator has come to an end, and so an ‘end of project’ evaluation is timely, in order that we might understand how best to redevelop the tool.

**Figure 1 - Genarrator 'view all narratives' homepage**

Here I present a summary of the work<sup>1</sup> I conducted with colleagues and presented at the Narrative and Hypertext (NHT) workshop 2023 (<http://nht.ecs.soton.ac.uk/2023/proceedings.htm>).

The main aim of this study is to test the possibilities of understanding an IDN tool by observing people who use it, as well as identify how the design of the Genarrator authoring system, with its various features and paradigms, impacts users' creativity and workflow.

The research objectives towards the above aim are:

1. To understand the author experience with Genarrator
2. To observe how authors exploit Genarrator to create their narrative.

## 2. METHODOLOGY

During academic year 2021-22, undergraduate and postgraduate humanities students who all had experience with Genarrator and had completed a project using it, were emailed with a survey link to answer some questions about their experience authoring with the tool. 24 students completed and returned the questionnaire. Following that survey, to further explore its findings, later in 2022 we undertook a task-based usability test of the Genarrator authoring tool. We considered that a usability evaluation of the tool with people who have used it before would help us better understand the efficacy of the tool in supporting authorship, and the influence of some of its particular design features and authoring paradigms.

We purposefully took an approach demonstrated by Nielsen and Molich (1990), who contend that an ideal number to conduct individual evaluations for a study such as ours is between three to five people, as greater numbers have been shown to be no more effective in showing a system's issues.

The four participants were given an hour to experiment with the tool and continue writing a part-completed story, which was an adaptation of the classic Grimm fairy tale 'Hansel and Gretel'. This approach of having participants finish a prepared story has been used previously with success (Kitromili et al 2022) and permits an evaluation of an authoring tool without the extended longitudinal effort of the author writing an entire story from scratch, while also ensuring the author engages in more than the limited set up activities of a cold start. During the task the first author/researcher was present as an observer and made notes on the process without interfering with the author's task unless to answer any questions the authors had while authoring.

Following the usability test exercise, a 30-minute semi-structured interview followed in which we inquired about the participants' experience with Genarrator. Interview questions were framed in such a way that would enable a collection of information relevant to the participants' overall experience. The top-level questions reflected the

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<sup>1</sup> Full paper: <http://nht.ecs.soton.ac.uk/2023/papers/2-Kitromili.pdf>

research objectives as set out in the introduction to this paper and were common across all the interviews:

- To establish the authors' overall response to the authoring tool within the context of this exercise
- To understand authors' creative process while using Genarrator, and what obstacles or benefits Genarrator afforded

### 3. ANALYSIS

From the initial survey we knew that our participants had not used another digital storytelling platform to any significant extent. However all had made use of an extensive range of Genarrator features dictated by their writing assignment prior to this UX evaluation.

Our first objective was: **To understand the general authoring experience with Genarrator.**

Perhaps because of their prior experience with Genarrator all participants eased into the tool relatively quickly. They all seamlessly navigated the tool to explore the narrative that was assigned to them for completion and very quickly started to work on it further. General observations gathered while authors were working on the narrative were that all participants were confident to use the tool aside from one participant who needed a bit of time to refresh their mind on navigating around. We were surprised to observe one participant who was confident enough with the use of the tool to anticipate where the tool was hindering their work with glitches. That participant was well able to work around bugs.

We noticed a strong focus from participants on the narrative text, fonts, sizes, layout, image placement and other style functions, relying less on testing the functionality of the narrative in terms of how their pages and the connections between them worked. This might have been because the participants leaned on the creative writing approach (they were all creative writing or communication studies students) rather than a more technical spectrum. This was further indicated by the lack of utilisation of the tool's *display rules* or the attached *narrative map* seen in figure 2 below.



Figure 2 – example of a Genarrator narrative map

Based on classroom observation prior to this research, we initially anticipated that every user would have employed the map to help them visualise and organise their narrative structure; however this exercise has clearly provided us with a different picture. Aside from trying to figure out the structure of the narrative that was set by the researcher who wrote the first half of the story, participants explained that the inability to interact with the map and dynamically change the narrative structure from there, rendered the map somewhat unnecessary. Unlike in platforms such as Twine, the Genarrator map function is a visual display of the narrative structure, not the tool for creating the structure.

Our second objective: **To observe how authors exploit Genarrator to create their narrative.**

We had expected to find that the display rules function would have been used widely, as it affords powerful plotting controls, as described above. However, albeit everyone having been introduced to it in their previous formal teaching, it seemed as though it was something unknown to all participants until they were interviewed and asked about it. We might conclude that inadequate in-class instruction, plus the lack of on-site tutorials leads users to ignore or be unaware of a useful feature in a tool. Kitromili et al (2020) refer to this as a situation of ‘Known Unknowns’ and ‘Unknown Unknowns’ for the lack of an authoring tool’s documentation to convey clear and exhaustive information on the use of the tool and what it allows people to do. A strong indication of how that applies to our tool is mentioned here by a participant: *"It's kind of a bit unclear if you didn't know, so that would probably be my feedback ... maybe an explanation as to what display rules are, would be useful, but it may be already on there, as I say, I don't know."* Here we see a case of ‘Known Unknowns’, where the participant knew the function existed, but the Genarrator interface does not make evident how that function works or where the documentation for that function is. What this also means is that Genarrator narratives may tend to be less interactive and more linear than they might have been if users were

fully aware of the display rules functionality. The Genarrator FAQ page (<https://genarrator.org/faq>) does have a short explanation of display rules, and a video demonstration was provided to enrolled students for the purposes of formal teaching, but it seems evident that a more visual and encouraging tutorial is needed: it will of course require further user evaluation to discover if this is sufficient to bring the functionality of display rules to users' attention, and if indeed the function is seen as helpful when it is employed.

#### 4. CONCLUSIONS

In this article I discussed work that was presented at the NHT workshop 2023 (<http://nht.ecs.soton.ac.uk/2023/proceedings.htm>) which describes a small-scale usability evaluation and the observations we gathered on the authoring experience of the IDN tool Genarrator. We tested with a small number of authors who were introduced to the tool via their academic courses and could easily work around its limitations

Our most valuable lesson was that we misconstrued our understanding of how Genarrator is perceived and used by actual authors. Functionalities we assumed would be well favoured by our participants were not in fact used much, if at all, whereas certain other features were emphasised. The indication is that the nature of the sample authors, the features of the authoring tool, and my biases in the initial design of the tool and in the presentation of the tool in formal classes, have all influenced our participants' reactions to Genarrator.

We now consider that recruiting a greater number of people who have self-discovered the tool, or not used it before, as opposed to students who have been taught how to use it, will likely allow us to uncover different results. Nonetheless, we consider that this exercise and any similar exercises to this one, that focus entirely on the use of the tool and less so on the mechanics of it, is likely to offer valuable insights on the communication relationship between person and machine and indeed the overarching 'authoring problem'.

Having gone through this exercise, we realise how important employing proper user experience research methods in testing technical tools made for creative purposes is, in the IDN discipline. This is especially true when their reason for existing is to offer that non-technical approach to creative people. We hope that with this small piece of work we can influence colleagues to investigate an amalgamation of UX with IDN research and open a discussion on the need for new or existing UX methodologies that can support IDN creation going forward.

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