

# A Reading of *Skeleton Seas of Mare Incognitum*: An Interactive Fiction Expedition in Curveship

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## OVERVIEW

*Skeletons of Mare Incognitum (The Unkown Sea)* is an interactive fiction (IF) work developed by Fox Harrell. This work was written using Curveship [1, 2], a platform for implementing works of IF that offers a range of affordances for narrative variation such as flashbacks, temporal movement of the narrator, and changes in voice.

## Author Keywords

Interactive Fiction, Narrative, Subjectivity, Artificial Intelligence

## ACM Classification Keywords

J.5 [Arts and Humanities]:

## General Terms

Design, Experimentation, Performance, Theory

## SKELETONS OF MARE INCOGNITUM

In the IF work *Skeleton Seas of Mare Incognitum*, you awaken in a dark chamber – unaware that it is the belly of a sperm whale. Traveling is more figurative than literal – visiting and revisiting each location reveals more about the gastral nature of your predicament. Each location is the belly of a different denizen of one of the earth's oceans. After figuring out how to escape from a creature's stomach, you emerge to move from ocean to ocean, and must get back to your life. Ultimately, you confront that you have been swallowed by the sea, wondering if your predicament is reality or a fantasy of a lost soul adrift.

## INTERACTIVE FICTION

The basic IF components are a world model, simulating a fictional universe, and a parser, allowing limited natural-language-like input. During the 1980s, interactive fiction was highly successful as entertainment software and was written by some established authors (including Douglas Adams and Thomas Disch). Sales decreased in the 1990s, but a variety of free IF development systems, the ability to distribute interactive fiction using the Internet, and a community of players and authors have developed works in different lengths, languages, narrative voices, literary genres, and modes of collaboration.

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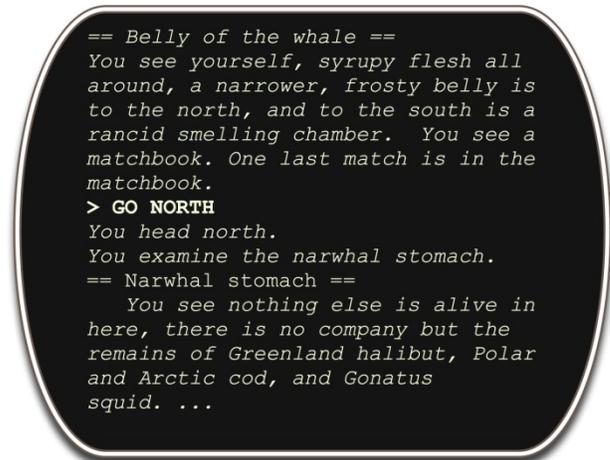


Figure 1: Sample Output

## CONTRIBUTIONS

The narrative theory that Curveship is based upon is not specific to text. As an example of what Harrell calls *phantasmal media* and *subjective computing* practice, the innovations discussed here apply to graphical forms of computer gaming and AI-based interactive narrative and poetry. [3, 4] The work offers several innovations including:

- descriptions that change based upon the player character's current knowledge,
- descriptions that change upon repeated visits,
- tense determined algorithmically when narrated as a flashback,
- gender can be left ambiguous or adapted during play,
- person can be changed during runtime,
- figurative rather than literal content (a new poetic direction for IF), and
- narrative speed can affect the level of output detail

A priority in Curveship development has been a model of salience that can be specified for each actor. The need for such a model was highlighted while developing *Skeletons of Mare Incognitum*. It is currently difficult to change narrative speed to expand or contract descriptive text or text representing actions in a meaningful way, since this should be done by omitting the least salient information.

## BRIEF BIOGRAPHIES

**D. Fox Harrell, Ph.D.**, is Associate Professor of Digital Media at MIT, joint in the Program in Writing and Humanistic Studies, Comparative Media Studies Program, and in the Computer Science and Artificial Intelligence Laboratory (CSAIL). His research explores the relationship between imaginative cognition, digital media arts, and computation, developing new forms of interactive narrative, gaming, social computing, and other types of culturally engaged AI-based media. Harrell received the National Science Foundation (NSF) CAREER Award for his project “Computing for Advanced Identity Representation.” He is currently completing a book, *Phantasmal Media: An Approach to Imagination, Computation, and Expression*, for the MIT Press.

**Nick Montfort, Ph.D.**, is Associate Professor of Digital Media at the Massachusetts Institute of Technology and president of the Electronic Literature Organization, has collaborated on the blog *Grand Text Auto*, the sticker novel *Implementation*, and *2002: A Palindrome Story*. He writes poems, text generators, and interactive fiction. Montfort has co-edited *The Electronic Literature Collection Volume 1* (ELO, 2006) and *The New Media Reader* (MIT Press,

2003) and written *Twisty Little Passages: An Approach to Interactive Fiction* (MIT Press, 2003), *Racing the Beam: The Atari Video Computer System*, (with Ian Bogost, MIT Press, 2009) and *Riddle & Bind* (Spineless Books, 2010).

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