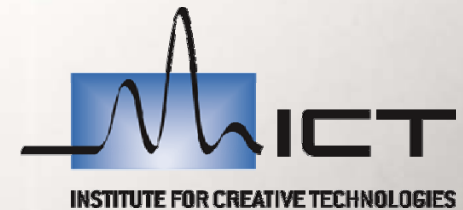


# Intelligent Lifelong Learning Companions

## A discussion of the Primer

H. Chad Lane | 10/02/2008



# Examples of learning support from the Primer

---

**everything is based on a personalized, lifelong narrative**

- **question answering**
  - why questions
  - explain (tell me more about)
- **reading skills**
  - knew some of the words, book would help when she got tired (p.151)
- **reconfiguration of the story**
- **making a compass (p.203), planting carrots (p.249)**
- **protects Nell from a predator (p.225)**
  - gave Nell an unsolvable problem: she tried “every trick”, 10-12 tries.
- **programming & computability theory**

## why questions (p.123)

---

- **“Once upon a time there was a little Princess named Nell who was imprisoned in a tall dark castle on an island—”**
- **“Why?”**
- **“Nell and Harv had been clocked up in the Dark Castle by their evil stepmother.”**
- **“Why didn’t their father let them out of the Dark Castle?”**
- **“Their father, who had protected them from the whims of the wicked stepmother, had gone sailing over the sea and never come back.”**
- **“Why did he never come back?”**
- **... (4 more why questions ensue)**
- **“What’s a troll?”**
  
- **"Within a week [Miranda] was teaching this girl how to read. They'd work on letters for a while, and then wander off into more stories about Princess Nell, stop in the middle for a quick practical demonstration of basic math, and then get sidetracked with an endless chain of "why this?" and "why that?" (121)**

# reconfiguration of the story

---

- **Princess Elizabeth → Nell**
- **Using Nell's toys in the story (Dinosaur, Purple, ...)**
- **Nell augments the story with additional details from her life**
  - bad things Baron Jack did (p.200)
- **re-reading**
  - text changes upon re-read (p.183)
    - not clear if it is to enhance enjoyment or improve understanding (or both)
- **mulligans**
  - “In time, she and Peter came up with a very tricky plan to sneak into the castle, create a diversion, and seize the magic books that were the source of King Magpie's power. This plan failed the first time, but the next day, Nell turned the page back and tried it again, this time with a few changes. It failed again, but not before Princess Nell and her friends had gotten a little farther into the castle. The sixth or seventh time, the plan worked perfectly...”

# programming & computability theory

---

- learns binary (p.346)
- **“So it went, as Princess Nell proceeded from castle to castle, inadvertently finding herself at the help of a full-fledged rebellion against King Coyote. Each castle depended on some kind of programmable system that was a little more complicated than the previous one. After the Castle of the Water-gates, she came to a castle with a magnificent organ, powered by air pressure and controlled by a bewildering grid of push-rods; which could play music stored on a roll of paper tape with holes punched through it.”**
  - Dark Knight had programmed depressing music
  - Nell solves this by thinking about the solution she used for the water-gates
- **“...it could just as well be reduced to an unfathomably long and complicated Turing machine program.” (p.388)**