Authorless Topic Models: Biasing Models Away from Known Structure

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Topic Models & Literature
Gont, the island famous for wizards... 
Ged, the young wizard of the isles... 

In his day Ged, called the Sparrowhawk, became both 
dragonlord and Archmage. His story is told in many songs, 
but this is the haunting tale of a proud, lonely boy in the 
time before his fame.

It is a tale of wizards, dragons and shadows played out in 
Earthsea, a world of numberless islands and vast oceans 
where mages, looking for adventure, wandered, working 
trials.

The Earthsea Trilogy

This trio of novels, a recognized classic of high fantasy, 
has been compared with Tolkien's Lord of the Rings and 
C.S. Lewis's Narnia stories. The present volume, A Wizard 
of Earthsea, is the first in the series and is followed by 
The Tombs of Atuan and The Farthest Shore.
He yelled the rhyme aloud, and the goats came to him. They came very quickly, all of them together, not making any sound. They looked at him out of the dark slot in their yellow eyes.

Duny laughed and shouted it out again, the rhyme that gave him power over the goats. They came closer, crowding and pushing round him. All at once he felt afraid of their thick, ridged horns and their strange eyes and their strange silence. He tried to get free of them and to run away. The goats ran with him keeping in a knot around him, and so they came charging down into the village at last, all the goats going huddled together as if a rope were pulled tight round them, and the boy in the midst of them weeping and bellowing. Villagers ran from their houses to swear at the goats and laugh at the boy. Among them came the boy's aunt, who did not laugh. She said a word to the goats, and the beasts began to blast and browse and wander, freed from the spell.

"Come with me," she said to Duny.

She took him into her hut where she lived alone. She let no child enter there usually, and the children feared the place. It was low and dusky, windowless, fragrant with herbs that hung drying from the cross-pole of the roof, mint and moly and thyme, yarrow and rushwash and paramel, kingsfoil, cloven-foot, tansy and bay. There his aunt sat crosslegged by the firepit, and looking sidelong at the boy through the tangles of her black hair she asked him what he had said to the goats, and if he knew what the rhyme was. When she found that he knew nothing, and yet had spellbound the goats to come to him and follow him, then she saw that he must have in him the makings of power.

As her sister's son he had been nothing to her, but now she looked at him with a new eye. She praised ridge to the stone and snow of the heights.

The name he bore as a child, Duny, was given him by his mother, and that and his life were all she could give him, for she died before he was a year old. His father, the bronze-smith of the village, was a grim unspeaking man, and since Duny's six brothers were older than he by many years and went one by one from home to farm the land or sail the sea or work as smith in other towns of the Northward Vale, there was no one to bring the child up in tenderness. He grew wild, a thriving weed, a tall, quick boy, loud and proud and full of temper. With the few other children of the village he herded goats on the steep meadows above the river-springs; and when he was strong enough to push and pull the long belows sleeves, his father made him work as smith's boy, at a high cost in blows and whippings. There was not much work to be got out of Duny. He was always off and away; roaming deep in the forest, swimming in the pools of the River Ar that like all Contish rivers runs very quick and cold, or climbing by cliff and scarp to the heights above the forest, from which he could see the sea, that broad northern ocean where, past Frezegal, no islands are.

A sister of his dead mother lived in the village. She had done what was needful for him as a baby, but she had business of her own and once he could look after himself at all she paid no more heed to him. But one day when the boy was seven years old, untaught and knowing nothing of the arts and powers that are in the world, he heard his aunt crying out words to a goat which had jumped up onto the thatch of a hut and would not come down: but it came jumping when she cried a certain rhyme to it. Next day herding the longhaired goats on the meadows of High Fall, Duny shouted to them the words he had heard, not knowing their use or meaning or what kind of words they were:
The island of Gont, a single mountain that lifts its peak a mile above the storm-racked Northeast Sea, is a land famous for wizards. From the towns in its high valleys and the ports on its dark narrow bays many a Gontishman has gone forth to serve the Lords of the Archipelago in their cities as wizard or mage, or, looking for adventure, to wander working magic from isle to isle of all Earthsea.
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Sea/Ocean
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Sea/Ocean: sea water boat island beach ship ocean ...

Magic: magic spell witch power demon wizard magician ...
What do author-correlated topics look like?
I’ll know it when I see it...

school professor work university years research science students student college study class year history scientific theory young...
I’ll know it when I see it...

school professor work university years research science students student college study class year history scientific theory young...

f’lar lessa weyr robinton hold dragon f’nor lord dragons benden rider bronze harper thread mnementh brekke ramoth
...but it’s not always so easy
...but it’s not always so easy

robot robots andrew human cully susan calvin brain being powell donovan law moldaug sir drake positronic bogert

old night yes cried town last men rocket god years hands house upon stood wind boy shut
...but it’s not always so easy

robot robots andrew human cully susan calvin brain being powell donovan law moldaug sir drake positronic bogert

old night yes cried town last men rocket god years hands house upon stood wind boy shut

sand pirx mars desert roger dust rock bass dunes crater martian jeffries kirov dune sweeney eileen rocks canyon lava camp
Adding More Topics Doesn’t Help!
Preprocessing
The island of Gont, a single mountain that lifts its peak a mile above the storm-racked Northeast Sea, is a land famous for wizards. From the towns in its high valleys and the ports on its dark narrow bays many a Gontishman has gone forth to serve the Lords of the Archipelago in their cities as wizard or mage, or looking for adventure, to wander working magic from isle to isle of all Earthsea.
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Preprocessing
Purposeful Data Modification
Author-Word Correlation: “robot”
Author-Word Correlation: “robot”

Isaac Asimov
Author-Word Correlation: “robot”

Jules Verne

Isaac Asimov

Author-Term Frequency
Author-Word Correlation: “robot”

Isaac Asimov

Jules Verne

Philip K. Dick
Author-Word Correlation: “robot”

Isaac Asimov

Jules Verne

Philip K. Dick

Author-Term Frequency
Author-Word Correlation: “robot”
Frank Herbert: “atreides”
Frank Herbert: “paul”
Frank Herbert: “desert”
Author-Specific Stop Lists?
Author-Specific Stop Lists?
Author-Specific Subsampling
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Before
After
It Works... Mostly

school professor work university years research science students

professor university college student students research school science

jack emma malenfant trip janet michael ing wireman leonard

lord hold between master queen star enough turns high good

f'lar lessa weyr robinton hold dragon fnor lord dragons benden rider

sand desert rock mountains mountain dust land surface plain

sand pirx mars desert roger dust rock bass dunes crater martian
New Topic Formation

- magic ghost demon evil witch
demons power spell magician ghosts

- machine robot machines robots
human mechanical brain men built

- charles william james robert john
poet mary henry richard london
Purposeful Data Modification Makes Models Better!

github.com/laurejt/authorless-tms