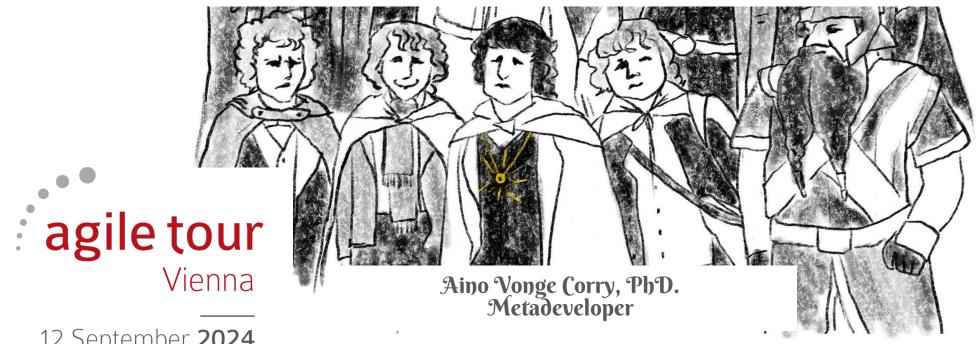




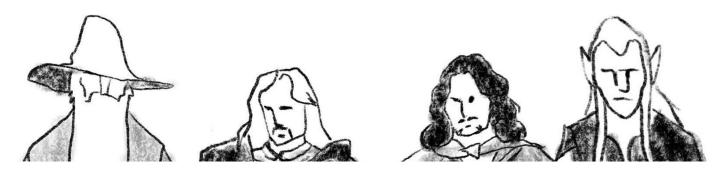




### What we (should have) learned from Lord of The Rings

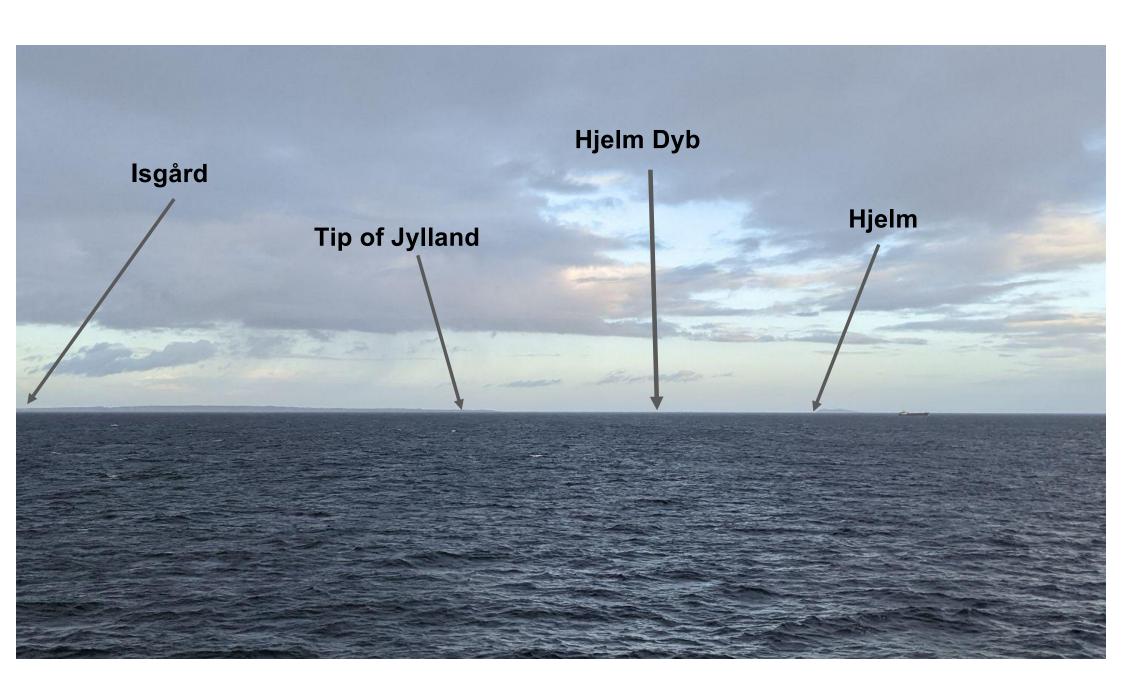


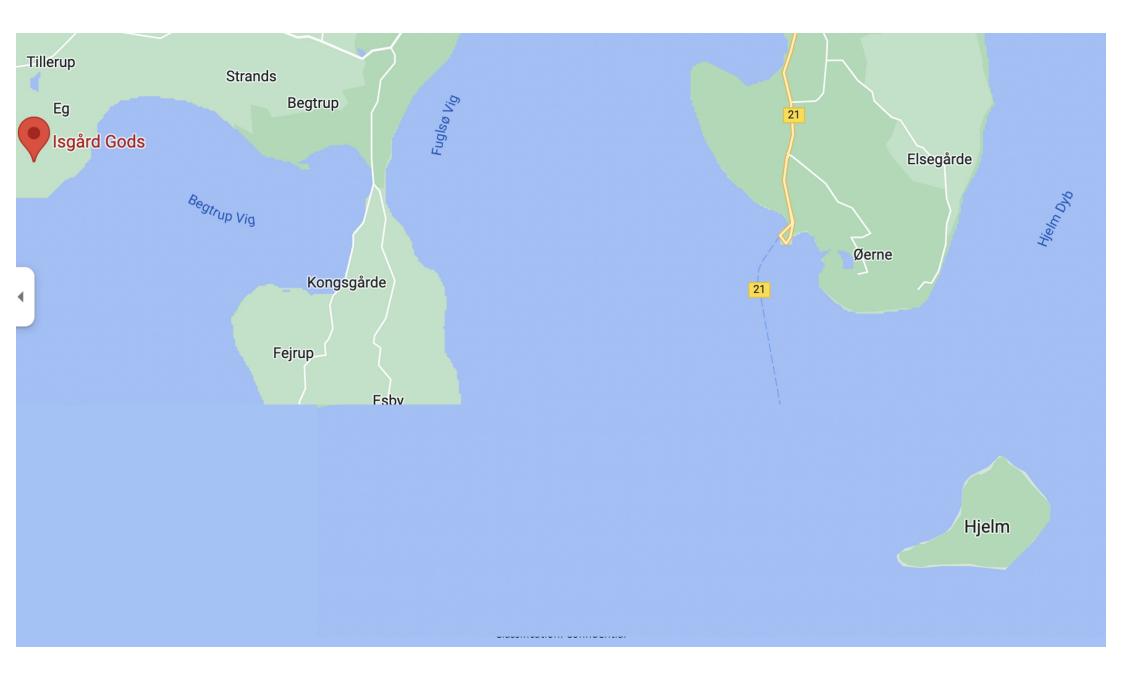
12 September **2024** 



Illustrations by Maja Vonge Cornils, CS student and artist





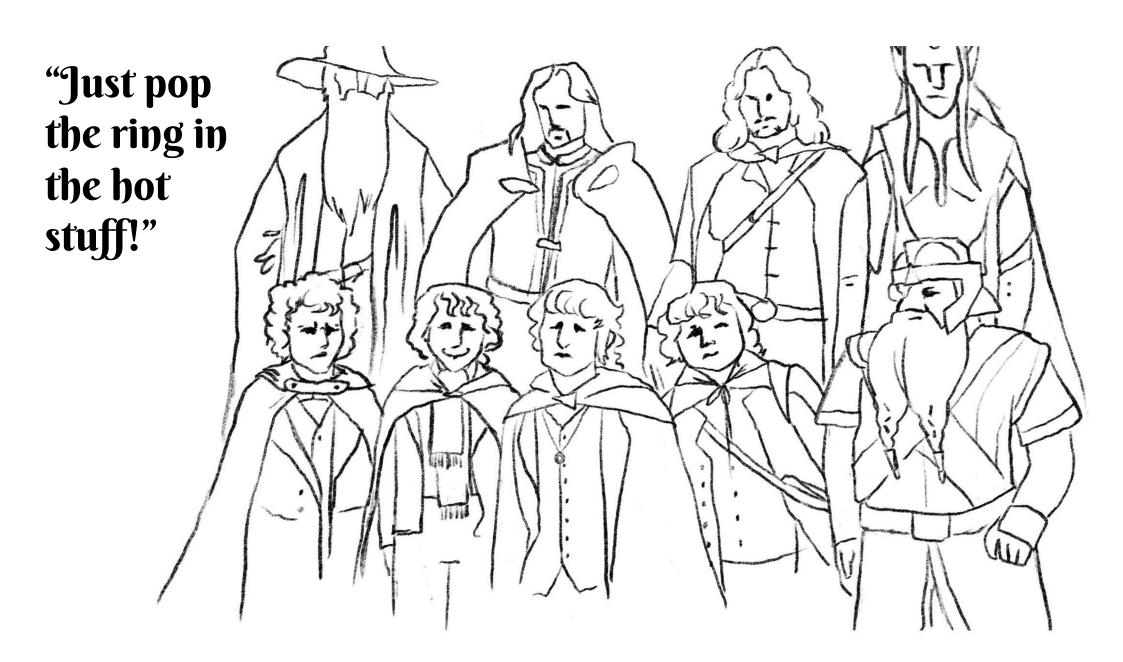












One does not simply walk into Mordor...



"I will take the Ring, though I do not know the way."

— Frodo

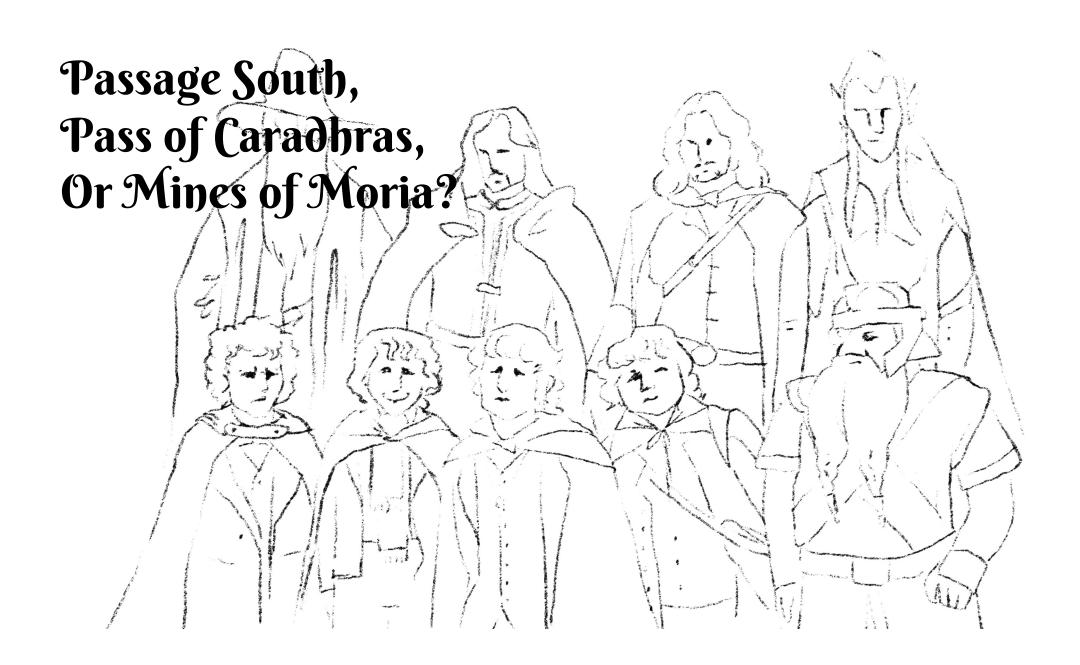












"Fool of a Took! Throw yourself in next time, and then you will be no further nuisance."

— Gandalf

"Men? Men are weak."

- Elrond

"Never trust an elf!!"

- Gimli





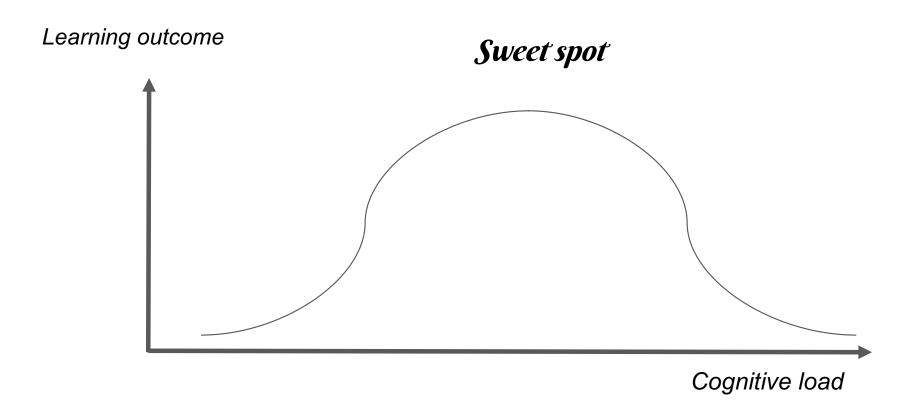




# **Cognitive Load Theory** 1982



John Sweller (1946 — )



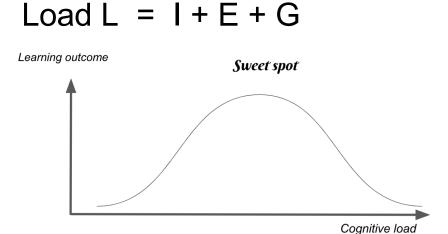
Classification: Confidential

## **Cognitive Load Theory** 1982



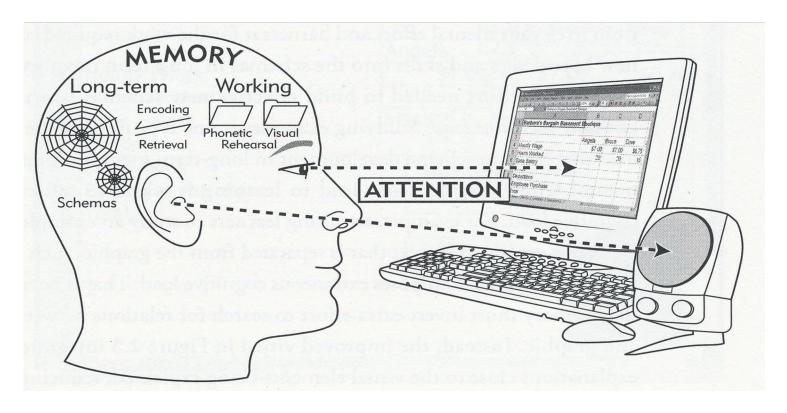
John Sweller (1946 — )

- Intrinsic cognitive load (I)
  - load intrinsic to the problem that cannot be reduced without reducing understanding
- Extraneous cognitive load (E)
  - a non-intrinsic load caused by instructional procedures that interfere with rather than contribute to learning
- Germane cognitive load (G)
  - a non-intrinsic load that contributes to, rather than interfere with, learning by supporting schema acquisition



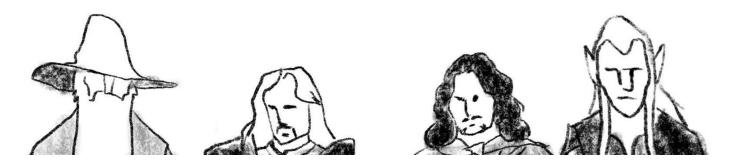
Optimize learning: minimize E, maximize G

## **Cognitive Learning Processes**



Soar is a cognitive architecture, created by John Laird, Allen Newell, and Paul Rosenbloom at Carnegie Mellon University

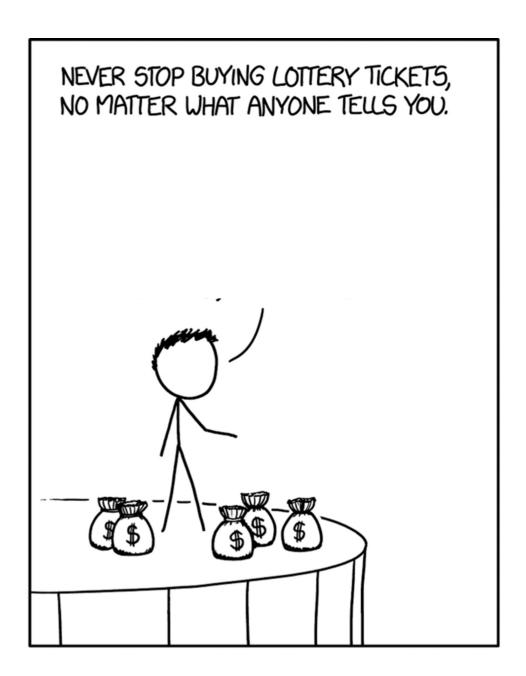
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## What we (should have) learned from Lord of The Rings



### **XKCD 1827**



#### **XKCD 1827**

NEVER STOP BUYING LOTTERY TICKETS, NO MATTER WHAT ANYONE TELLS YOU. I FAILED AGAIN AND AGAIN, BUT I NEVER GAVE UP. I TOOK EXTRA JOBS AND POURED THE MONEY INTO TICKETS.

#### XKCD 1827

NEVER STOP BUYING LOTTERY TICKETS, NO MATTER WHAT ANYONE TELLS YOU. I FAILED AGAIN AND AGAIN, BUT I NEVER GAVE UP. I TOOK EXTRA JOBS AND POURED THE MONEY INTO TICKETS. AND HERE I AM, PROOF THAT IF YOU PUT IN THE TIME, IT PAYS OFF!



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