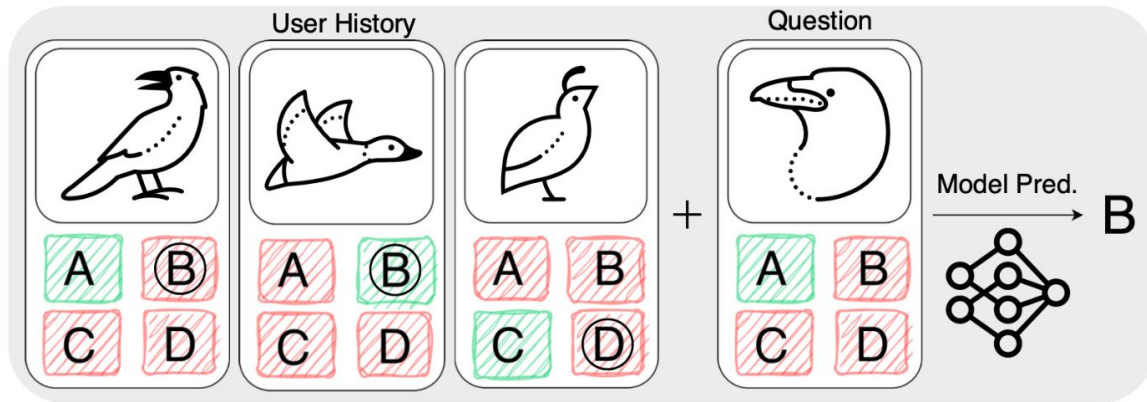


CleverBirds: A Multiple-Choice Benchmark for Fine-grained Human Knowledge Tracing

Leonie Bossemeyer Samuel Heinrich Grant Van Horn Oisín Mac Aodha



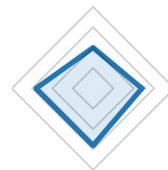
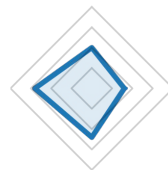
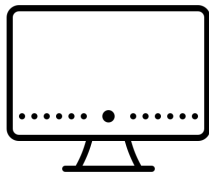
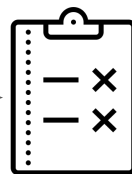
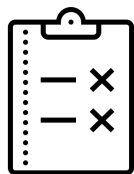
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Knowledge Tracing



Knowledge Tracing - Existing Datasets

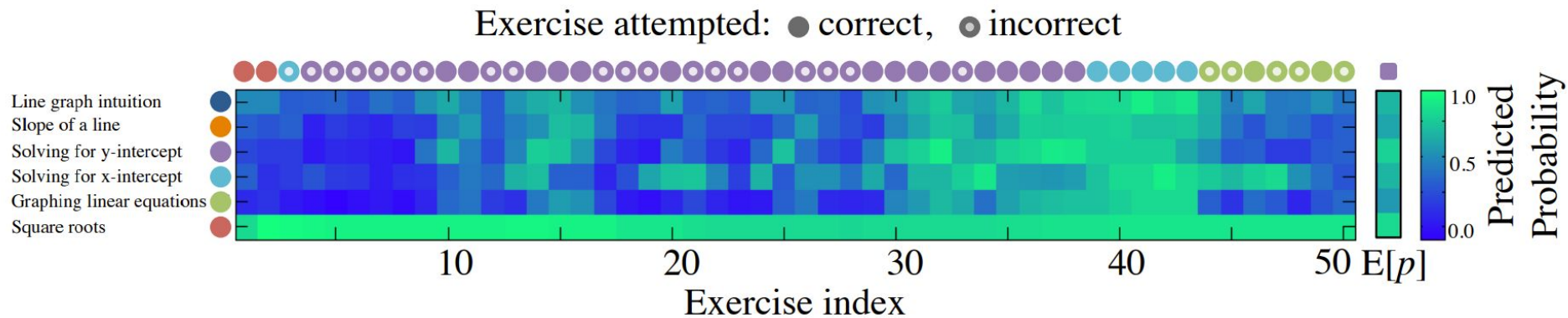


Photo Quiz



© Francois Lampron

What bird is this?

Tufted Duck
Green-winged Teal
Common Eider
Common Goldeneye
None of the above



© Shaan Purohit

What bird is this?

Eurasian Linnet
European Greenfinch
European Goldfinch
Eurasian Siskin
None of the above



© Julia Shvetsova

What bird is this?

Goldcrest
Eurasian Nuthatch
Greater Whitethroat
Long-tailed Tit
None of the above

CleverBirds Dataset

40,144

Participants

17,859,392

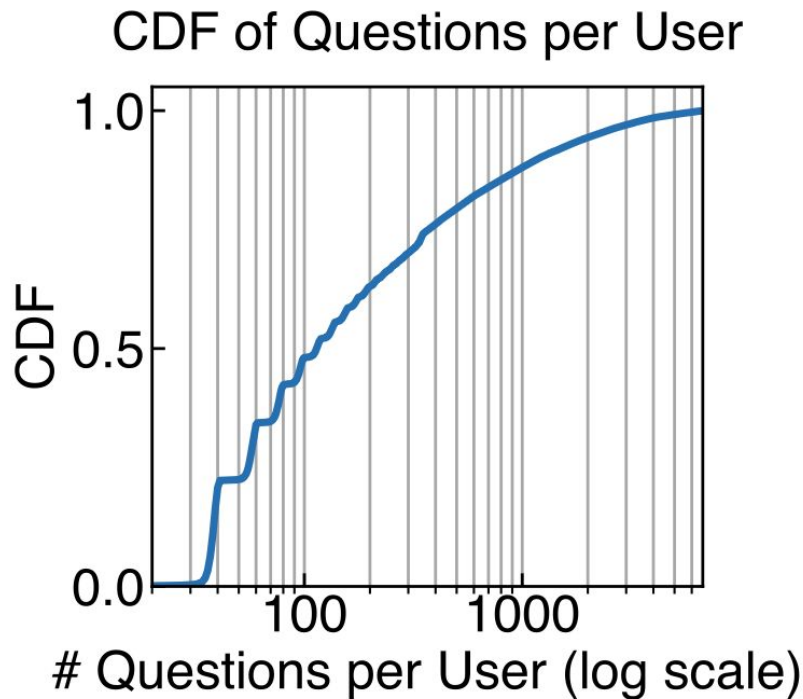
Total Interactions

10,779

Bird Species



Long-range learning patterns





© Ayuwat Jearwattanakanok



© Bruce Schine



© Ian Davies

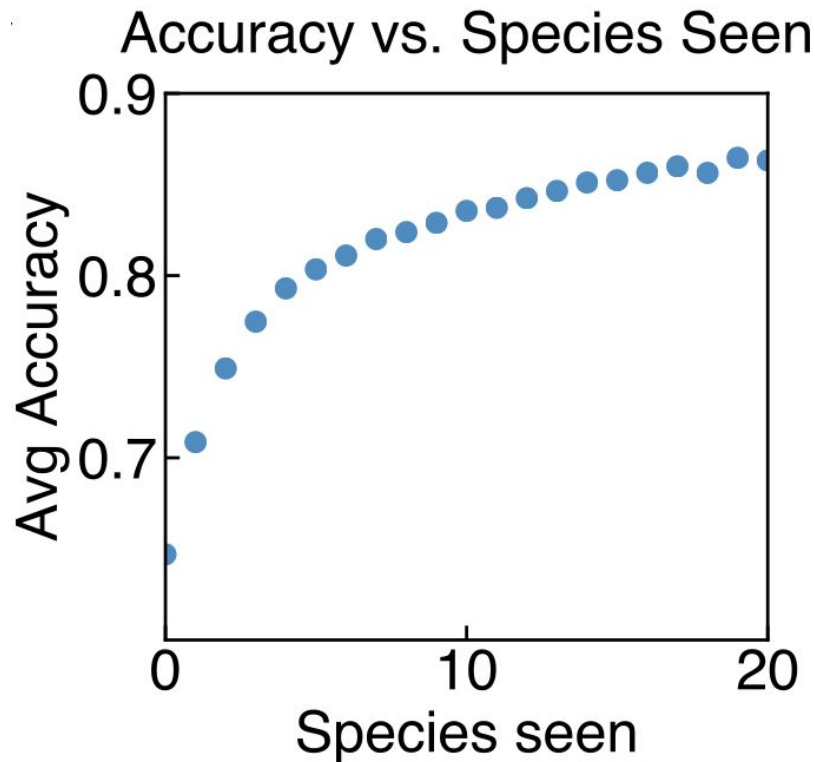


© sam hough

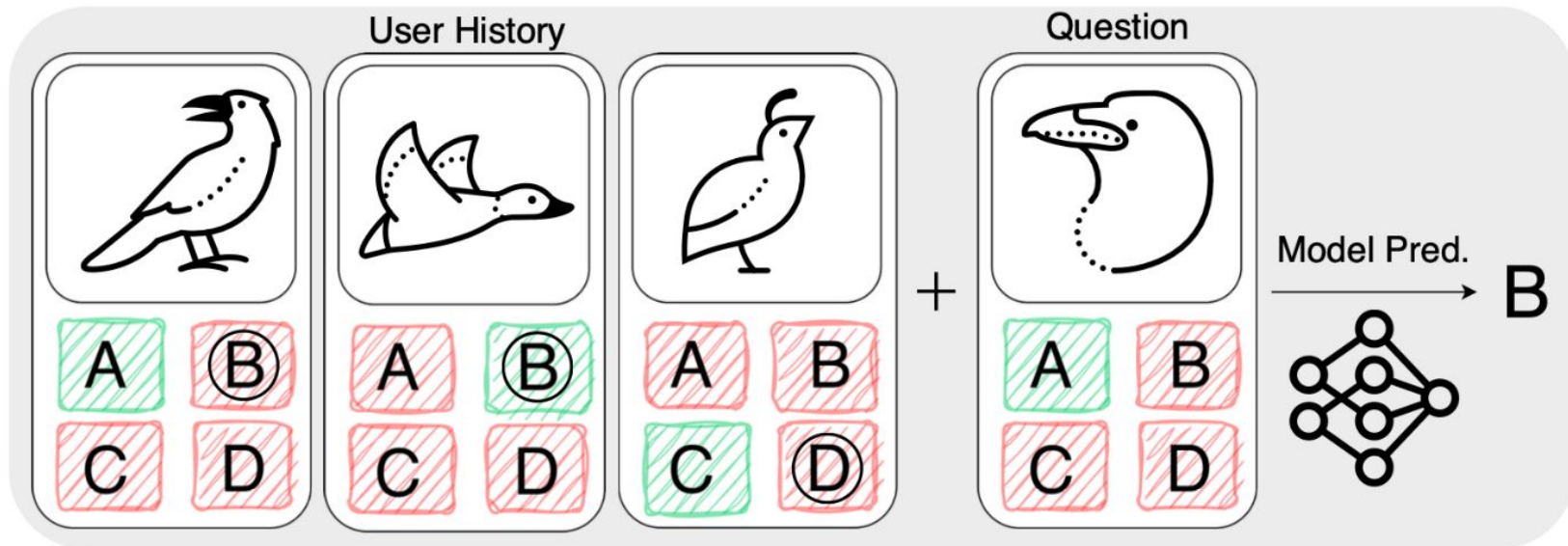
Subtle differences
betw. classes

High variation
within classes

Learning curve

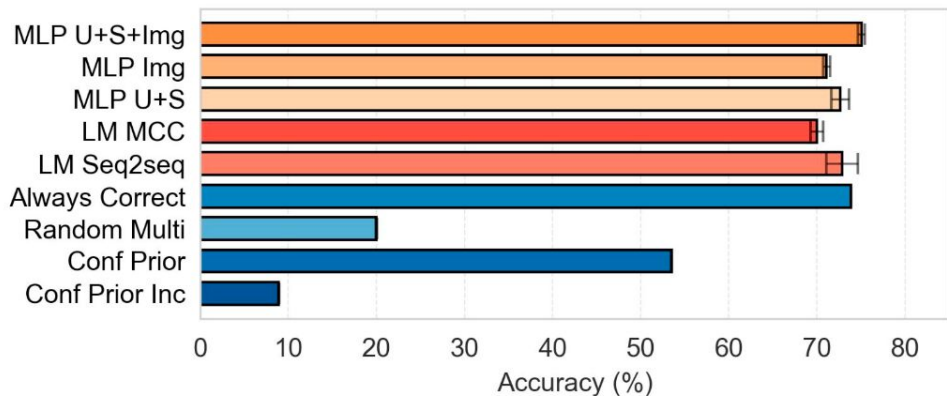


Task

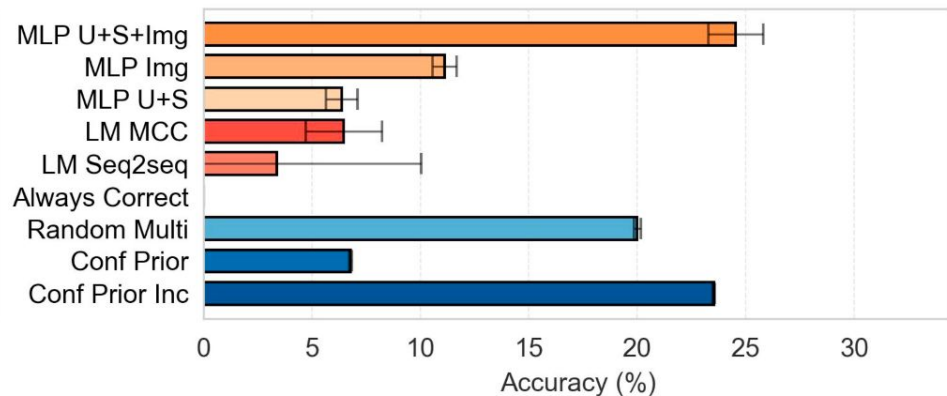


Results

Multiple-Choice Accuracy

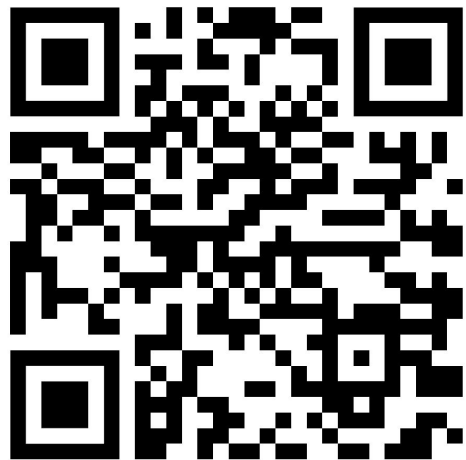


Multiple-Choice Incorrect Set Accuracy



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