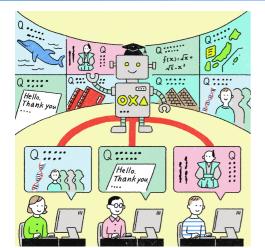
Assigning problems that are appropriate for each student for highly motivated learning

Monotonic VAE-based individually optimized problem recommendation

IOWN Evolution Well-being · Lifelong Health Support

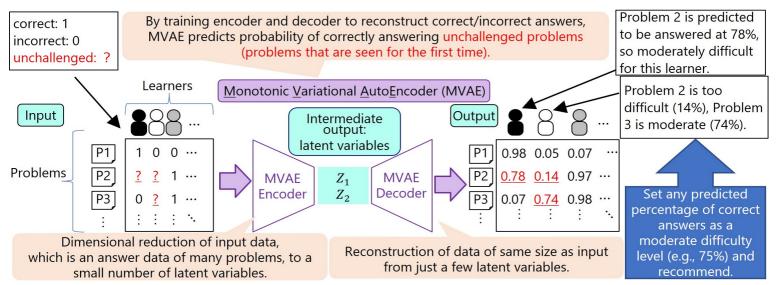


Background

It is important to select problems of the appropriate difficulty level for each student in order to keep students highly motivated. However, existing methods require detailed information about the problem, such as which factors in which subjects are involved, in order to select problems.

Summary

We developed a machine learning method that predicts the probability that a learner will answer a problem correctly the first time he/she sees it, based on problem-solving history of learners. For each learner, problems that are predicted to be correct with any given probability can be selected.



Features

- Prediction of probability that a learner will answer a problem correctly the first time he/she sees it, based on correct/incorrect information alone, without detailed information
- Applicable to any problem format in any subject (the only required problem information: answered correctly/answered incorrectly/not contacted)
- Visualization of learner and problem characteristics to discover learners with similar abilities and problems that some learners are good at or bad at

Future benefits

We seek a future where "success," "failure," and "unchallenged" information is stored in various content, providing learning content suited to individual abilities and life stage.

Exhibiting Company

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