

NEW METHODS OF MINIMIZING THE ERRORS IN THE SOFTWARE

Dorenskaya E. A.

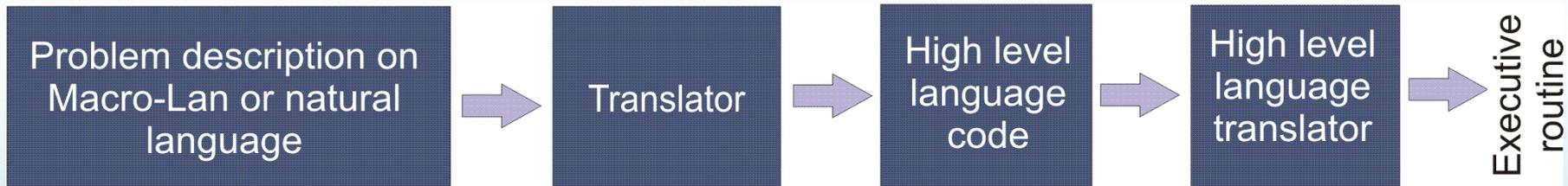
AI-problems

- In principal our task is just for AI, but who can answer the question:
- Can AI created in the image and likeness of human (neural model) provide less bugs than usual programmer?

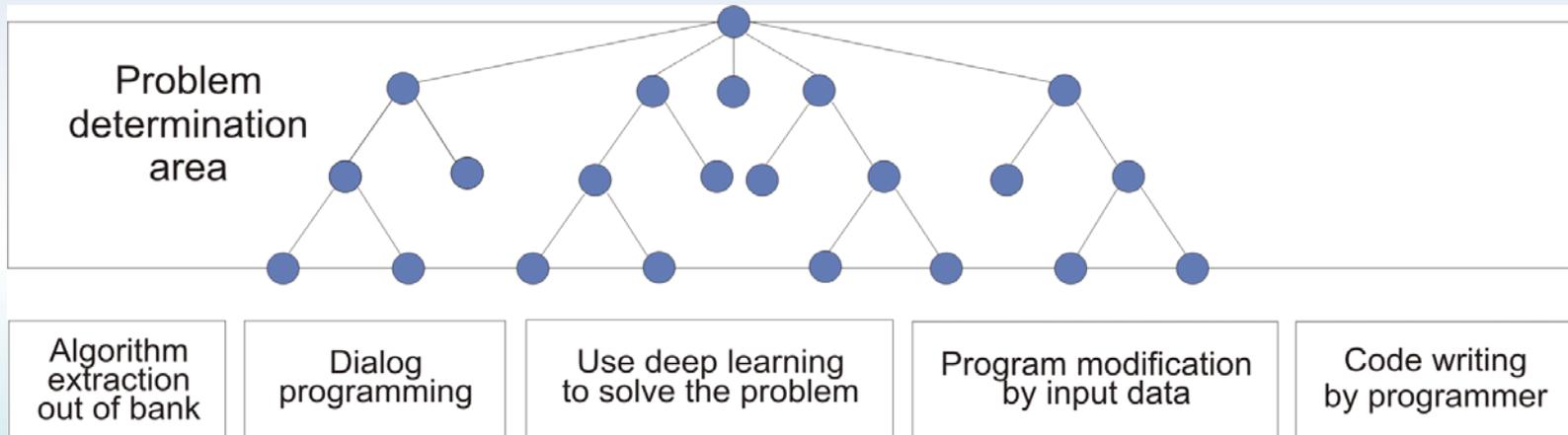
Methods of minimizing the errors in the software

- “Many eyes”;
- Code-checker;
- Holtzman rules;
- The test generator.

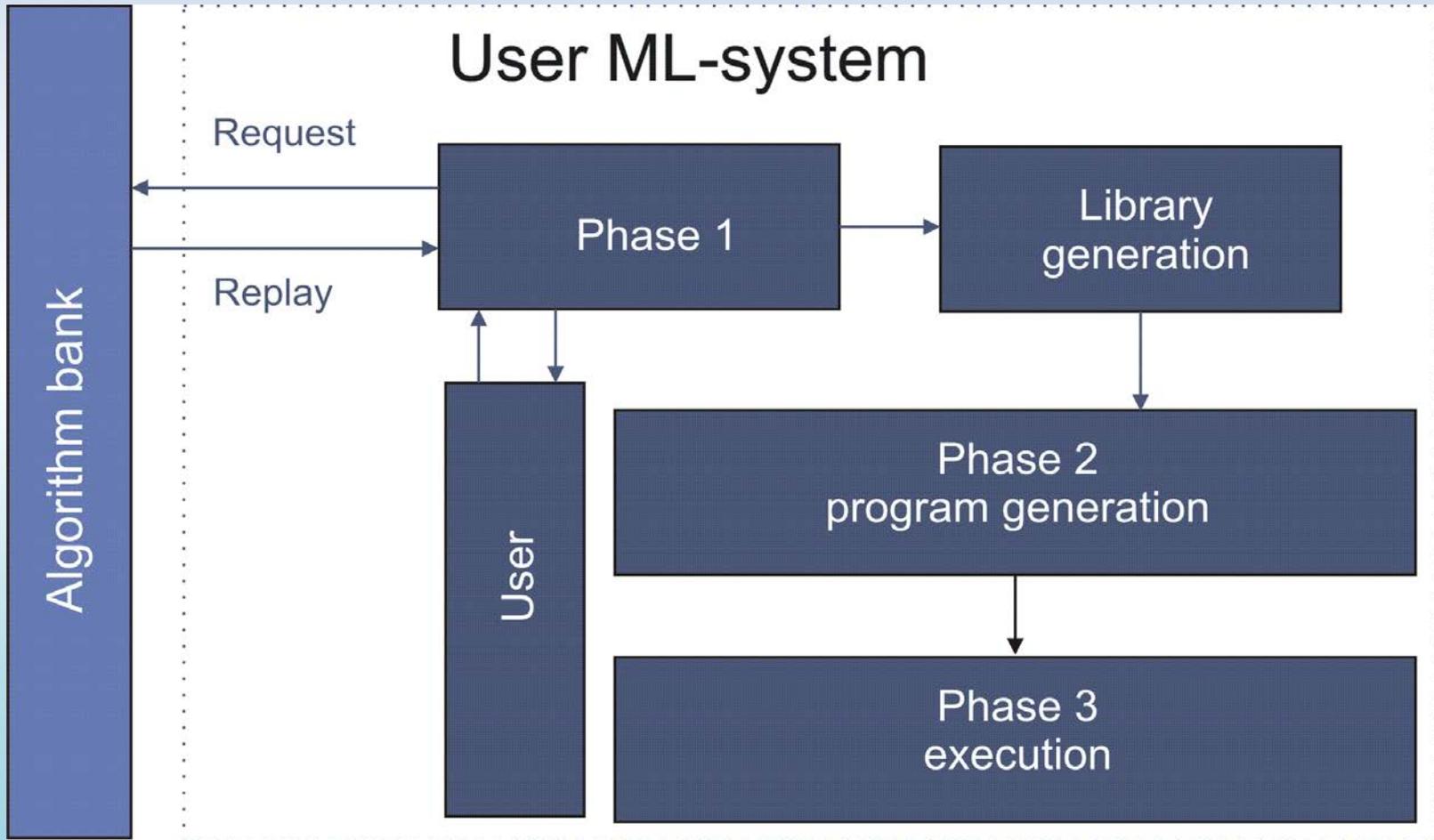
The proposed scheme for evolution of problem description to executive routine



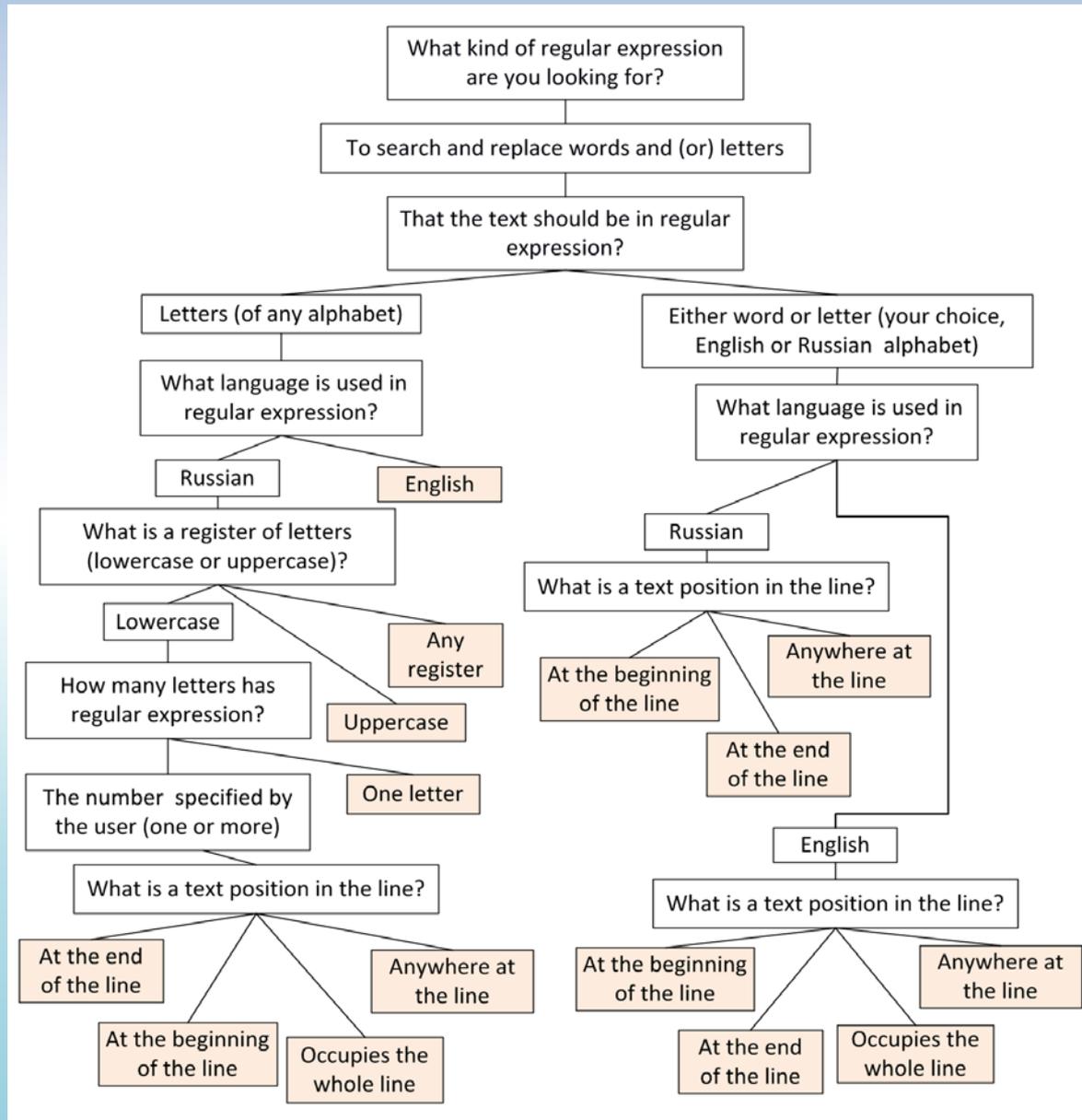
ML realization scheme



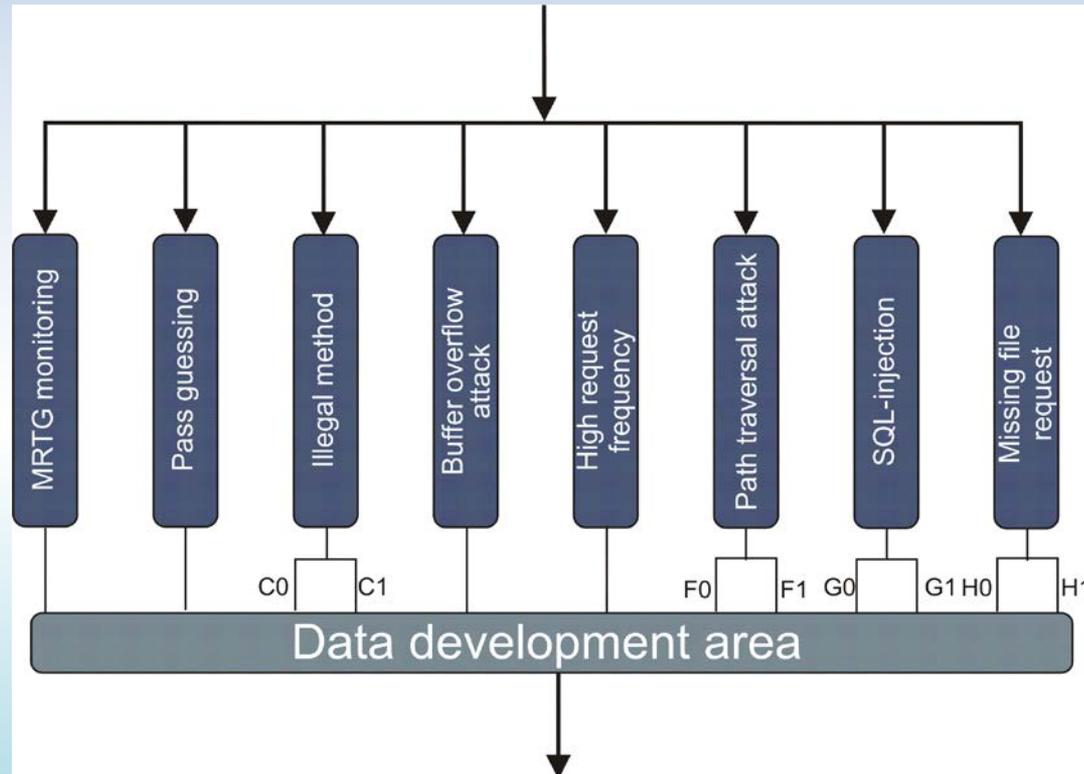
Structure of ML in case of dialog solution



Dialog method to get a regular expression



Graph to create a version of security software set for WEB-server



C0 – case of usage **put** or **delete** methods (HTTP-protocol).

C1 – using methods **post** and so on.

F1 – path traversal attack (in the file access_log there are lines `"../"` , `"/../../../../../"` , `%2e%2e%2f` , `..%c0%af` or `%2e%2e/`).

G0 - SQL-attack;

G1 – the same, but with no SQL-DB on the computer.

H1 – there is a request of the potentially dangerous file

A method for modifying code

- A method for modifying the program code by the given input parameters;
- The method of task interpreting with a help of special language

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Thank you for listening