Essay about AI

(by Timofei Chirtsov)

May be this assay will be little bit strange, I don't share common view angel on this theme, maybe it is because my ex-girlfriend was data-scientist and I know how it works under the hood.

I don't like AI at all, AI or Artifice intelligence in my opinion is greatest win of marketing of 21 century, it simply linear algebra and algorithms that can adapt to data.

Simplest AI is linear regression, we have dataset (array) of X and Y, any we simply ask computer to create curve that matches given X to Y, after that we give to computer new X and asking him about Y, that's all, simple curve, no intelligence, only math. Now we learned how to predict simple numbers, let's have a look at images, images are not numbers, right? No, images are 2D array of 3 numbers (red, blue, green) from 0 to 256, how to operate with data like this? Answer is simple, matrix operations, we will create many curves, so many. But what we will try to find? Basic task in computer vision is object recognition, we give array of images (like X), but out Y will be square with name of object, cats for example, after that we ask computer to create association between 2d array of number and coordinates of square borders, it takes much more computation resources, and now we need so many curves, but it is only curves, not intelligence, only statistic model. You can say, Okay images can be converted to a numbers but how to teach computer work with text, letters are numbers (Unicode, utf8), but word is much more then sum of letters, word have meaning, and it depends on context. The big win of data science is that NPL (natural language processing) now can translate words (meaning of word) to numbers, this process calls tokenization, today machines can concert word to multi dimension matrix of number, and we can do math operations with this numbers, we can sum vectors of king and woman and it will be equal of queen, after we can subtract old and it will be equal princess. If sentences are numbers, we can do our old trick with X and Y, but in this case, X will be tokenized sentence and Y changed sentence. For example, how to tech computer convert aggressive sentences to neutral? We need two parallel datasets (2 array of sentences) first is aggressive, second is neutral, after that we can use prebuilded language models like DeepSeek and one important thing – super powerful computer or cloud solution like Yandex Datasphere, only 3 component and some science articles about NLP technics and AI or STATISTIC MODEL for text detoxification ready. All task in data science can be solve by simple algorithm 1) find what is X and what is Y 2) create an array of X and Y 3) read articles about similar tasks 4) find preduilded model for this kind of tasks 5) teach model on your data 6) check metrics of result 7) repeat while metrics are not acceptable.

AI can classify, change or generate images, text, voice and video. A lot of money are wasted on this industry but after 6 years of researching and development we have not to much result. Generated images can be used only on very low budget design, AI generated code quality is low, and it takes more time to fix it instead of writing by yourself, AI can make many fact errors, if you want to find information first search result in Google will be much more useful and accurate then AI answer.

 All result of AI today can replace only a very low-quality work. In my opinion AI hype will stop in nearest 2 years. AI is statistic model and it can solve only simplest tasks, it can dominates in virtual world with strong borders and rules, but out live much more complicated for it