

Competition and Collaboration in AI

How to build the umbrella for AI collaborative development and how validate AI projects and products under the umbrella?

1. Competition with China.

China is well known for its long-term vision.

In 2016 AI program created by Google won the GO game while competing with the world's best GO player.

The GO game was invented in China about 4000 years ago and losing this game to the US was not an ordinary event.

Since then, AI became a priority in China's plans.

In 2025 China plans to catch up with the US and in 2030 become the world leader in AI.

US is currently ahead in AI technology with its unbeatable Nvidia graph chips, Open AI, Meta, ad Elon Musk innovations.

China's government heavily supports any innovations and experiments in that area.

China already is leading in e-commerce. No cash or checks or credit cards. All transactions are done with a regular phone.

Self-driving cars? China is building a huge new city, the size of Chicago, filled with censors, ready for AI-driven transportation.

Can we accelerate our development in the US? Yes! With the Development Factory!

What is the Development Factory? Just imagine that you come up with a good idea, no kidding, a really good idea for your project. But the number of technical details on the way to implementation will slow you down ... and soon you abandon your project. Now think that you have a big brother. (No, not that "Big Brother".) A good mentor who can talk to you and quickly advise you in any and all directions.

One more step and we describe this mentor as a Conversational Semantic Decision Support (CSDS), a set of AI-based services that is capable to converse with you and turn your modest development ability into a Development Factory (<u>US Patent 10956676</u>).

Another use case is a home project development. A user approximately knows what s/he wants and an AI assistant walks a user through each step optimizing the choices.

Collaborative development projects can be built with the <u>Development</u> <u>Factory</u>, where AI helps to develop a project and serves as an umbrella for all such projects. Development Factory extends innovative human ideas with boring but necessary implementation details. Written in 2004 in <u>the</u> <u>message from 2040</u> as a science-fiction story, today this is a real AI conversational system, a work in progress.

A good example of a use case for the Development Factory is a <u>home</u> <u>project development</u>. A user approximately knows what s/he wants and the Development Factory walks a user through each step optimizing the choices. The implementation is not finished yet, the site can be viewed as a skeleton demo.

2. Can we establish an umbrella for safety and maybe even for collaboration in this area?

Creating an umbrella for collaborative projects is a bigger-scale system, with the same or similar major algorithms and components, which include Nvidia products for Semantic Graph Understanding and Optimization.

The AI Conversational system will check every step in the development to make sure that it is within a specified knowledge domain and towards specified goals. If this is not as powerful as Isaac Asimov's "Three Laws of Robotics", this might be a step in the right direction.

Another piece of this puzzle is how to connect exported AI components to these projects.

- How to ensure that the AI chips and products are just used within validated projects?

There are several Product Checking Systems, for example, at Leadtek Research Inc. (<u>https://www.leadtek.com/eng/support/validate/</u>). Such systems validate the product ID, for example, NVIDIA serial number from Graphic Card labels.

Integration of these two solutions will allow us to tightly control development as well as related components.

Where do we need collaborative development in the AI area?

Many Electric Vehicle Companies, including Chinese NIO, use NVIDIA AI to power automated driving.

We can achieve an unprecedented breakthrough with collaborative AI development in international Healthcare, for example, with <u>FLARA</u>, and beyond.

We can collaborate with Ukraine developers that smartly integrate AI with drones and Satellite systems. And we do that. They learn from us and we

learn from them. At the same time, it is important to tightly control any collaborative AI projects, to prevent the wrong hands from getting there.

With controlled collaboration, we can control AI components and projects with AI technology.

This article may sound controversial from a political point of view. This is understandable.

The focus here is not on a specific case or a country but on technology. The technology can allow us to extend collaboration with different businesses and countries while keeping it safe.

More:

https://patents.google.com/patent/US10956676B2/ https://aitu.us/album/Technology/CollaborationInAI.pdf The message from 2040 How This Works