How To Use Artificial Intelligence To Boost Your Small Business

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A short time ago getting started with AI (Artificial Intelligence) was unmanageable for startups and small businesses. It required a highly skilled data scientist and machine learning experts experimenting with algorithms. But in a very short amount of time things have changed. AI that can recognize objects in images, understand documents and texts, and make high accuracy predictions on your user data can now be done in a few hours and without coding.

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What happened?

The same thing that happened to making websites. Back in the day you always needed a developer when you needed a website. Today many websites are made by almost drag and drop with services like Wix and Squarespace. Large or complicated websites are still made by developers but for the small business creating a website only takes a few hours of choosing between templates and moving sections around.

The same is happening to AI. Since most artificial intelligence is almost always based on the same few standard algorithms, automating the process of developing AI was pretty

straightforward, meaning that you are now able to make AI basically by drag and drop. Like the websites, the complicated solutions still need experts, but simple solutions can be made by most people.

And what is simple then? Let’s say you want to teach an AI to do quality control on the assembly line, so you don’t ship products that are ultimately going to be returned. That can actually be done by utilizing a number of tools for AI that are similar to Wix and Squarespace.

The tools are not surprisingly being made by big tech such as Google, Microsoft and Amazon. But there are already a good number of startups trying to do the same.

I really believe that it’s a matter of very little time before you will hear this sentence in the office: “That’s a boring task.. I’ll train an AI for that. Maybe I can make a coffee before it’s ready.”

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The step by step plan to get started

If you’re like me, your mind might already be racing with ideas and problems you can solve with this sudden easy access to artificial intelligence. But you might also wonder where to start. So here’s a step by step plan to get going.

Get your problem right

First, and perhaps the most important step, is knowing exactly what problem you are trying to solve. It sounds like truism, but it is often here where you can find the origin of the mistake when problems arise.

To get the problem right you should at least follow these steps:

- Describe all possible in and outputs
- Decide on quality goals
- Involve domain experts. It’s easy to make many management decisions but if you don’t include the operational employee, you risk making AI’s with no real application

Collect your data

Most important advice here – collecting data is usually by far the part of AI that requires the most resources. In some projects you will only need to collect data when starting and in some projects, you will need to recurrently collect data.

Usually, you can’t know in advance how much data you need. As a result, it makes sense to go early to the next step and train an AI a few times to see if you can get a good result. And don’t make the mistake of going for perfect. An AI, like with any other business system, is a way to solve a problem and when it does that, there is no reason to invest more.

Make sure to check off the following boxes when collecting data:

- If recurring data collection is needed, make sure to calculate the cost of collecting data so you can keep the business case positive
- Make sure your data covers all possible inputs as much as possible

Train, test and deploy

Now you know your problem and you have data, so you are ready to make your AI. As I wrote in the beginning, there are multiple tools that let you make your own AI without coding,

as you already have the data. This is actually the easy part, for with most of these tools all you have to do is to upload your data and with a click of a button, the AI is trained and deployed. That’s it.

The only thing you should watch out for here is that the quality score you are given for your model might not accurately reflect what you get from actual rollout. So test it out as much as possible.

Watch it

The world has a tendency to keep spinning and changing. You might have trained an AI that works seamlessly now but it could drift away from reality as the world changes. Let’s say you have made an AI that can detect credit card fraud. As soon as your AI starts to catch the fraud, the criminals will change tactics. It’s important to monitor changes in the data in order to recognize and prevent that problem.

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Is it really that easy?

The difficult part is actually the problem and the data. Getting to the core of the problem and knowing whether or not AI is a proper solution is slightly harder than with other solutions since the field is so new and it’s rare for anyone to be very experienced.

As mentioned, the data is also usually the most expensive part and that is often overlooked. But this can be turned into a competitive advantage. If you can find a way to collect data with better quality and/or cheaper than your competitors, you have a great case for success.

Connecting your AI models to existing software still entails

some red tape. IT will always be IT and AI is in that category. It involves uncertainty and when integrating your AI with other systems, issues can arise making the effort more difficult than you originally thought.

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