

# Deep - Learning Driven Tools & Applications



In today's fast-paced world, efficiency is key. Finding quick wins to streamline various aspects of business operations is essential. The emergence of deep learning (DL) driven tools offers a solution.

These tools can learn from user behaviour, automate complex tasks and reduce manual intervention. From design and data analysis, to smart assistants and customer support, DL-driven tools will (we suggest) transform the way businesses operate.

In this guide, we cover how deep learning-based tools are revolutionising various aspects of business processes. Ultimately, this delivers reduced costs and increased efficiency.

What follows are some early examples of how deep learning-based tools can benefit businesses. Let's start with something simple - A quick win.

## Email

People waste lots of time on email. Whether it's doom scrolling down through the list as an alternative to starting on the next task or searching for that elusive email they know is in there somewhere.

Unfortunately, DL-driven tools cannot deal with procrastination. However, they can help with searchability and more.

There are lots of Email tools available already. Many come built into whatever email package you may use. So, how are DL-driven tools different?

Deep learning-driven tools can learn from user behaviour. They can automate complex tasks like email prioritisation and categorisation.

Based on how often a user opens, deletes, replies or marks an email for later DL-driven tools can learn, sort and prioritise emails. They can automatically organise emails into specific folders and categories, reducing manual intervention.

Depending on the complexity of the customer service process DL-driven email tools can auto-generate emails or templates that require minimal human intervention before release. They can create folders with emails that need a response and categorise them according to urgency.

## **Design, Graphics, Images and Video**

Many professional services firms need design, graphics, images and video on an Ad hoc basis for a wide range of promotional material. They could be for a brochure, direct mail, a pull-up banner for an event, a presentation, or something as simple as social media or website images.

With no specialist design skills in-house, many firms have, to date, subcontracted these services to freelancers or agencies.

With the growth in DL-driven tools, most of these activities can now be brought back in-house. The business owner or an employee can add them to their daily task list. Yes, it's more hours of work for internal people, but at a significantly lower hourly rate than an agency may charge.

The results may not be at the level of the very best graphic designers, but the truth is, they will be a close match to those delivered by most agencies and freelancers. Of course, your agency could use these same tools and pass the savings onto you, but (most likely) they won't.

# Data Analysis

Most firms need a level of data analysis. It's a common frustration that obtaining information in the format required can be a laborious task.

Some firms work with a bunch of spreadsheets. However, the majority use some industry-specific system or package from a standard software provider. Those systems may simplify many issues, but often they do not work exactly as the business may like. They may be overly complicated, stacked with too many features or clunky.

With DL-driven tools, it is possible to customise data analysis to match the business needs. This delivers quick access to information and aids faster/better decision-making. It's not necessary to throw away existing systems. DL can act on existing data to refine, simplify or speed up the process.

Most small to medium-sized firms work on medium-sized data sets. For those analysing large amounts of data, DL is ideal. Analysis can be customised to fit the firm's precise needs. With training, DL can learn and provide greater insights than existing tools.

# Smart Assistants

Most employees have simple manual administrative tasks they perform often. Although individually each can be relatively quick the time involved can build over a working day/week to become significant.

By using ChatGPT and its custom GPT feature, it is easy to create personalised smart assistants to complete simple tasks.

You don't need to be a software engineer to set up a custom GPT. You don't need to code, you just need to understand how ChatGPT works, prompt construction and training principles.

As an example, imagine an employee trying to keep track of more than fifty client files in progress. Some of these files will be active, but most will be waiting for input from elsewhere before they can progress.

When someone asks what is happening with a file, the employee needs a quick answer. They don't need mounds of data, they need a quick (few words) response.

No doubt they could interrogate the client management system the firm employs, but that is slow and provides lots of bells and whistles the employee does not need.

Instead, they could maintain their own simple note file on the status of files. Not a spreadsheet or a database, a text file can suffice. A custom GPT could interrogate that file and provide an answer in seconds.

Is this two levels of data entry? As the client management system must be updated, then yes it is. Is the answer as accurate as the client management system? Mostly yes, but it should not be 100% relied upon.

Is the double entry required significant, given it is a simple text file? No, it is not and it could save the employee a significant amount of time.

Better still, the custom GPT can learn over time, delivering more potential savings in time and effort. DL uses data to learn how a process works. It looks for patterns.

## **Reduced Marketing Costs - Increased ROI**

The ROI on digital marketing activity has been reducing for some time ( you can read lots more on the reasons why at <https://harrhill.co.uk/marketing>).

Many small businesses outsource marketing activity to agencies as they lack the time and skills to produce marketing materials in-house (see above). This makes the ROI issue worse.

If a firm runs Ads on Google (or other search engines), on social media or LinkedIn DL tools are available to increase effectiveness, reduce admin time and the time required to prepare graphics and images.

DL-based tools simplify email outreach and lower direct mail costs (see above). Custom GPTs can interface with CRM systems simplifying data entry and extraction.

Many tools can reduce marketing costs and the reliance on agencies and freelancers.

## **Customer Support**

Related to marketing is existing customer support. Unfortunately, this is an activity long neglected as firms bought into the digital marketing hype and the chase for new clients.

# Chatbots+

Traditional Chatbots have existed for many years. DL-driven Chatbots are a leap forward.

Where traditional Chatbots rely completely on their initial training DL-driven chatbots can understand much more thanks to natural language processing and an in-built understanding of language.

ML-driven Chatbots learn from each interaction, allowing them to update themselves over time. Hence, they can customise their responses to each user, providing a more personalised experience.

Ideally, your existing customers should be able to talk to a human. If that is not possible, an ML-driven Chatbot is a reasonable alternative. If a customer needs a quick answer to a question, a Chatbot delivers that capability with a minimum of fuss.

## Knowledge Bases

To function, a Chatbot needs a knowledge base that contains all the relevant (not commercially sensitive) information a customer could ever need on your business.

The structure of the knowledge base and the content needs to be thought through and structured. What is added (and removed) over time must be carefully controlled.

In future, the traditional website may disappear. Instead, it could be simply a Chat-style interface that links to a back-end knowledge base.

However, knowledge bases are not only for external use. They can support employees. Think of them as an intranet on steroids.

Internal knowledge bases improve efficiency as they deliver consistency and allow employees to find the information they need without delay. They can help with training and improve customer service by delivering consistent answers to queries.

The above only scratches the surface of what DL-based tools will be able to achieve in future. They will deliver customised solutions to specific business problems.

To learn more, or to arrange a free review of how DL-based tools may be able to help your business please get in touch.

Call Phil on 07716 871892 or Email [phil@harrhill.co.uk](mailto:phil@harrhill.co.uk)

## About The Author

Phil Smith is a experienced marketer with over 15 years marketing and business development management experience. This includes five years as a marketing manager for a professional services firm.

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