Analytic Eye

Unlock the Hidden Value in Your Data

Contents

Analytic Eye Ltd, Mendip Hub, Southover, Wells, BA5 1UH

Web: www.AnalyticEye.co.uk

Email: info@analyticeye.co.uk

Phone: 0117 325 8024

© 2017 Analytic Eye Ltd

Introduction

This guide gives an overview about **data** in your company and how you can **unlock its hidden value** to save costs and increase revenues for your company.

There are likely multiple different IT systems in your company, all independently gathering data. These might include systems like email, websites, CRM (Custom Relationship Management), Customer Support Ticketing, Financial Systems, Spreadsheets, Management Information Systems and many more.

There are very good reasons for having multiple systems – each one is specialized in a given task and trying to replace them all with one behemoth of a generic system would be a fool's errand. So this little guide is not about trying to replace or even change your existing systems – because you chose them for a good reason and likely rely on them for your day to day business. Instead we look at how the data that lies in these systems can be wrangled to deliver the most value to you and your business.

To look at it another way, there are multiple IT systems in a business that are designed to capture data, manipulate data and make processes more efficient. This guide is about making better use of this existing data, by bringing it together, improving it and analysing it; with the ultimate goal of generating insights that can only come from bringing the whole data together to become more than the sum of its parts.

Specifically, we're going to look at three different aspects of data wrangling:

- **Synchronizing**: bringing data between different systems into sync automatically. This is a quick win which can save manual data entry costs straight away.
- **Search**: where we create a central pool with all data allowing your staff to access all information from a central location, saving time searching through multiple systems.
- **Analysis**: examining techniques that can be applied to reveal insights about your business to reduce costs and increase revenues & profits.
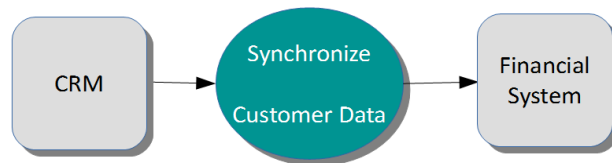
Synchronizing

Each individual business will rely on a range of individual IT Systems. How do your currently synchronize data between these systems? Is your data even in sync between these systems?

Setting up an automatic way to synchronize your main IT systems provides two major benefits. Firstly, time and cost is saved in manually typing in data in the second system. Secondly, data quality is improved by making sure that all records from one system are in the second system quickly, reliably and accurately. People tasked with copying records may make re-typing errors, accidentally miss a record, not have enough time to copy a record or even be too lazy to copy it across (I'm sure that doesn't apply to any of your staff of course!).

There are existing synchronization tools built into some popular tools to connect them together. For example, your financial system may already be able to import customer data from your CRM (Customer Relationship Management) system. Where these integrations are pre-built for particular pairs of systems they are incredibly useful and should be configured and turned on. It usually takes a little effort to generate the necessary security credentials to setup the link, but it is well worth it!

However, even where there is no ready-made synchronization available it is often possible to automatically synchronize systems. Modern systems will often expose something called an API (Application Programming Interface), which basically means that another program can control the system, in the same or similar way to a human user using the Graphical User Interface (GUI) would. For example, suppose that by clicking the mouse and typing a human user can create a new customer record in the system. An appropriate API would allow another program to do the same thing. So if an API is available (sometimes called exposing an API) then it is possible to create a program to synchronize data with the system.

Even without an API, it may still be possible to access the data. Many systems will store their data in a database, meaning it is possible through standard interfaces to read and write to the database.
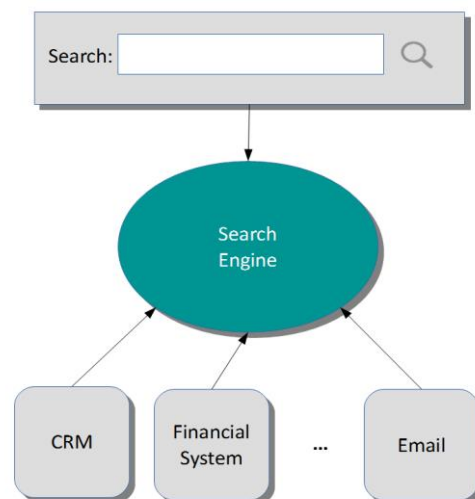
Search

Another problem that having data in multiple systems presents is how to find information. You may know that the information is there somewhere, but finding it requires going through system-by-system and using whatever search is provided to try to locate the information. This is a time consuming and error prone process. But there is a better way.

Enterprise Search allows you to gather all your business data into one place and make it searchable. Having an enterprise search engine for your company is like having your own search engine across all your own data available to your staff. An enterprise search engine has connectors to all your different business IT systems to fetch the data – so the data doesn't have to be entered again. The computer running the search engine organizes the data in a way that makes it very fast to search, a process a little bit like creating an index in a book, where the contents of the book is all the data in your company's IT systems.

So for example your staff could go into the enterprise search engine interface and search for a customer, using any information they could remember about the customer, like the customer's first and last name. They would then see all the information about that customer in the search results page, like the customer's entry in the CRM system, the customer's contracts with you and any emails that you've exchanged with the customer in the past. Clicking on the links in the search results would then take the user to the specific item in the originating system – e.g. the customer details page in the CRM.

An enterprise search engine can benefit from all the features you expect in a modern search interface, like an easy to use single-field search box and the ability to drill-down in the search results, like you can on shopping websites.

Setting up an enterprise search engine can take considerable effort, but this can all be done for you by our in-house search experts. The payback comes from the time savings of putting all the data from your organization at the fingertips of all of your staff – the same way that web search engines like Google put the information published on the web at our fingertips.

Analysis

Data analysis can be used to provide new insights into your business based on your existing data. There are three main types of analysis we will consider. Firstly, **marketing analysis**, to determine how effective a given marketing campaign is at driving new business. Next we look at building a **business dashboard** for key performance metrics. Then we look at **predictive models**, where past data is used to produce predictions to drive business decision making.

Marketing Analysis: John Wanamaker (1838-1922) once said "Half the money I spend on advertising is wasted; the trouble is I don't know which half.". Wise words back in the late 19th century, but now we don't have to accept this! Online marketing campaigns and social media channel activity can be tracked for efficacy through tools like Google Analytics. When correctly setup, such web analytical systems allow you to set goals and measure progress through well-defined marketing funnels, with decomposition by campaign. So you really can see which half of your online marketing budget is really working for you!

Business Dashboard: This can be a very useful analytic tool. To setup a dashboard you first need to establish the key performance indicators for your business, for example number of sales calls, number of upcoming jobs, number of shipped orders or number of support calls per time period. These examples are very generic but you probably have in mind some specific measures that are particularly important for the smooth running of your business.

The data to calculate these metrics can then be collated from the various business IT systems where it resides. Sometimes it will be necessary to join data from multiple systems to calculate these metrics. Once this is done the information can all be presented in an intuitive dashboard, with performance charts based on the metrics. To keep everyone focussed on company goals, it can be useful to display this dashboard prominently on a large screen in your office or production facility.

Predictive Models: Wouldn't it be nice to have a crystal ball and know what's coming? Using modern artificial intelligence techniques, we can now build predictive models, ones that look at your past data and predict what will happen in the future. These approaches are already in use in the market and we can help you harness the power of these modern approaches for your own business.

Summary

In this booklet we've looked at three different aspects of data wrangling: synchronizing, search and analysis.

By using tools to automatically **synchronize** data across your multiple business IT systems you can save the costs of manual re-entry whilst ensuring higher data quality and consistency.

You can setup an **enterprise search** system to give staff access to all your information at their fingertips, saving time and making your team highly effective.

You can forget about problems of the past and use **analysis** to drive business decision making and provide insights into where your marketing spend is most effective and help manage your day-to-day business effectively for growth.

FREE Business Data Landscape Report

*At Analytic Eye we **live and breathe data** and would like to be part of your journey towards using your existing business data more effectively. As a first step to explore this we offer a free, no obligation Business Data Landscape Report for your business. In this report we aim to find areas where you could apply the techniques and approaches described in this booklet and if you see value in them you can ask us to explore working for you to achieve the implementation.*

*To arrange your free, no-obligation **Business Data Landscape Report** contact Edward Ross:*

Email: edward.ross@analyticeye.co.uk
Phone: 0117 3258024