ANALYTICS AS A SERVICE

Advanced Analytics and Research Lab

A 7-minute guide

2018 Edition

AAARL

TABLE OF CONTENTS

WHAT IS DATA ANALYTICS?

> " Analytics is the art and science of transforming data into actionable business insights for decision making. "

Understanding and implementing data analysis is a complex problem that involves disciplines from computer science, database management, statistics, and subject matter expertise.

Businesses and organizations stand on different stages on the data journey spectrum. Where does your team and organization fit in this race to analytics excellence?

Map your organization on the data journey on the right starting from the bottom!

Artificial Intelligence

Machine Learning

Prescriptive Ananalytics

Predictive Analytics

Descriptive Analytics

Business Intelligence

Ad Hoc Analysis

Reporting

Data Collection

No Data

WHY YOU NEED IT NOW

To Keep Up With The Competition

53% out of thounsands of companies who responded to a 2017 study conducted by Dresner Advisory Services, LLC, reported using some form of data analytics.[1]

39% out of all of the companies who have not adopted data analytics reported having plans for adoption by the end of 2018.[1]

⚠ *As the benefit of analytics grows exponentially, companies who don't take advantage of their data resources will eventually fall behind.*

To Obtain a Clearer Picture

39% of **Global companies** in the same study described having highly data driven decision-making processes. [2]

33% of **Canadian companies** participating in a PwC Big Data Decision Study, in 2016, considered their decision-making process as highly data driven.[2]

⚠ *Information that is not easy to understand is hardly valuable. Buried within your data are key insights waiting to be uncovered in a clear and concise manner. Through the combined use of analytics and dashboarding software, any complex discovery from existing or required analysis can be presented through visual graphics that you can understand far more clearly than traditional methods. Make decisions and accurately predict outcomes with confidence!*

[1] Big Data Analytics Market Study. Mi1 Big Data Analytics Market Study.
[2] Global Data and Analytics Survey 2016 | Canadian insights. 2016

CROSS DISCIPLINES IN ANALYTICS

Category	Description
Management Analytics	Real time data visualization with cost, revenue, profit, and employee data to help managers allocate resources and assess the health of the organization.
People & HR Analytics	Be more proactive in problem solving and spend less time dealing with transactional activities by utilizing metrics related to workforce demographic, health and safety, recruiting, retention, and performance.
Inventory Analytics	Manage inventory levels with analytical accuracy. Forecast future stock requirements to avoid stockouts or overstocking and see which single/combination of items are performing best together.
Financial Analytics	With automation, get to the complete picture quicker. Utilizing software, your data can be pulled from multiple sources and consolidated into a format that works best for you. Additionally, use predictive analytics with historical data to forecast future gaps.
Operations Analytics	Track important metrics like service time, machine efficiency, and energy consumption to understand the health of key assets and optimize for higher utilization rates.
IT Analytics	Optimize IT resources by understanding and predicting where IT requests may come from. Using descriptive and predictive analytics, better prepare staff to balance loads and allocate resources optimally.

CROSS DISCIPLINES IN ANALYTICS (cont'd.)

Category	Description
Customer Analytics	Understand your customers. Familiarize yourself with their interactions with your products or services, reduce purchasing friction by optimizing your value chain based on detailed customer profiling, and explore valuable new business opportunities only possible through the use of analytic reporting such as churn alerts and customer segment analysis.
Transaction Analytics	Combining customer data with recency, frequency and monetary values of transactions, understand purchasing behaviour and which sales or marketing channel has the highest impact on specific customers.
Social Media Analytics	Decrease the distance between organization and customer with social media and web presence analysis. Discover insights such as which clients are key influencers on social media and the tone of their posts. Additionally, receive monthly reporting on your own social media performance.
Marketing Analytics	With monthly reporting using advanced analytics to understand customers, transactions and marketing channel performance, make decisions to increase ROI on marketing spend with more information than ever before.
Pricing Analytics	Pricing elasticity on products is a key question for a variety of industries. Optimize profits by testing various price points using statistical methodologies.
Sales Analytics	Which sales channel is performing the best? Perform analysis on internal sales and external competition to get a 360-degree picture, providing decision makers the knowledge of which lever to pull on to improve results.

CASE STUDY EXAMPLE:

Use Case and Potential Cost Saving

Scenario

A manager has to make a pricing decision. She starts by pulling data from various sources and organize it into a single Excel spreadsheet. She calculates totals, averages, and logical tests using basic Excel functions. Then, she uses more advanced functionalities (i.e. pivot tables) to create tables, charts, and graphs. Finally, she analyze the data to make their decision. If these tasks take about 10hrs/week, that's roughly 40hrs/month.

Analysis

Let's assume the manager's salary is $75,000/year.
If these tasks take appoximately 40hrs/month to complete, that's **one-quarter** of her time. This translates to **$18,000 of activities that could be automated at a much lower cost**! Furthermore, this will allow the manager to have more time for creative tasks and people management, instead of boring and repetitive data manipulation.

Solution

Use Data Report Automation: With tools like VBA in Excel, R Programming and Qlik, data manipulation can be automated.

AAARL can automate the typical data manipulation process and **reduce up to 90% of the time spent on the process for only a fraction of the cost.** *That would save up to $18,750 annually just for a single manager!* Not only will AAARL deliver the results you need, but we'll go the extra mile to provide suggestions for analysis that can give managers insights to lead their team.

Are you thinking about all the benefits you could gain yet?

Discover
New Revenue
Opportunities

Lead
The
Innovation

ANALYTICS AS A SERVICE

A revolutionary way to leverage analytics for an organization without the hassle

Reduce
Cost

Increase
Productivity

Gain
New
Insights

BENEFITS

Quick Acquisition of Analytic Capabilities

Recruiting, hiring, and training takes time and money. Subscription analytics allows you to skip the setup and jump right into the analysis. It provides you with the data capabilities you need - **now.**

Cost Efficient

Uncover the answers to improve your business operations without the costly, up-front investment of in-house solutions.

Flexible Commitment

Acquire the analytics you need on a monthly or annual basis. Only sign up for what you need. *For more information see .

Increase Productivity

Automate the boring, repetitive data manipulation process to better utilize time on the more important tasks.

Speed to Answer

Experience timely reporting of deliverables. The analysis starts when you need it.

Cross Disciplinary Expertise

Receive in-depth technical and business insights from experienced experts from various industries.

Visualize Your Data

Comprehend the bigger picture of your data with the use of visual graphics through dashboarding, instead of combing through rows of data on Excel to find.

WHAT WE OFFER

*You can prioritize what's most important for your company as we work with you to find the services that best suit your needs. In the meantime, we'll look through your data for new opportunities and deliver you the **insights you need to make your next important decision.***

REPORTING

Whether it's employee retention, sales performance, or customer churn analysis, get reports delivered to you on time, so you can get your hands dirty and start making insightful decisions.

METRICS AGGREGATION & MANIPULATION

Performing data automation and calculating complex metrics by pulling multiple data sources into a single summary table.

ANALYSIS

Exploring business opportunities by transforming data and statistical outputs into business insights. Not sure how to act on churn rates or customer lifetime value data? Let us help!

PREDICTING

Taking data to the next level by applying machine learning and statistical forecasting models. Gain insights of the future, so you can be prepared.

OPTIMIZING

Taking objective and constraint functions to optimize for marketing spend,scheduling, load balancing, and machine efficiency. AAARL will use advanced techniques to dramatically boost your ROI.

BUSINESS CONSULTATION

Business-driven analysts can provide actionable recommendations based on your business use cases in combination with our own internal data.

1

Assess fit:
Find out if this is the right service for your organization based on the use cases outlined on page 5 and 6. If you are still unsure, consider the questions on page 12, **take our assessment** or talk to one of us to determine if there is a fit and how we can best help you in the process.

2

Sign up:
If you decide that we are the right fit for you, you can either **contact us directly** or **sign up online here** and we will contact you.

3

Evaluate your needs:
After you sign up, we will reach out to schedule an onboarding call with you. This process will help us set up your account, which will include:

- Understanding your challenges and data situation
- Giving preliminary recommendation
- Gaining access to your data
- Estimating delivery time
- Determining best package

4

Deliver results:
Your account executive will start working on your case as soon as we have access to your data. You will then receive a report with the analysis results, insights, and recommendations that will make decision-making processes more effective and efficient.

5

Pay:
Finally, just pay at the end of the month!*

Marketing Analysis Demographics Dashboard

Population Pyramid
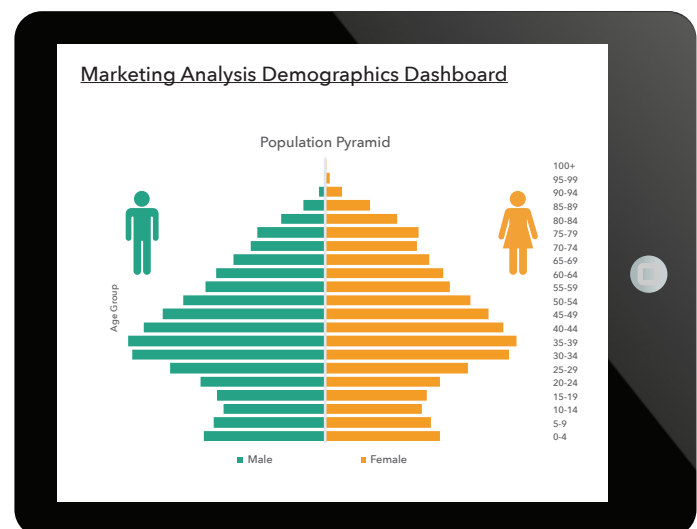
*Invoice payable in 15 days. If work exceeds your package activity, there will be extra charges on an hourly basis, plus a premium. You can cancel (or change) your subscription at anytime starting the following month (i.e. if you cancel on May 5th, your subscription will stop (or change) starting June, but will still receive service and be charged for May).

BEFORE YOU GET STARTED

Consider the following questions to determine what your current data situation is.

Current Data Capabilities:

- How many people at your company have roles dedicated to finding answers from your data?
- How broad is their knowledge of manipulating/modelling data?
- How successful have they been in finding actionable recommendations?

Current Data Situation:

- What kind of data do you collect?
- Who has access to the data?
- Who is in charge of the data?
- Which part of the business is this data important to?
- Is there any opportunity to leverage the data in creative ways for business opportunities?
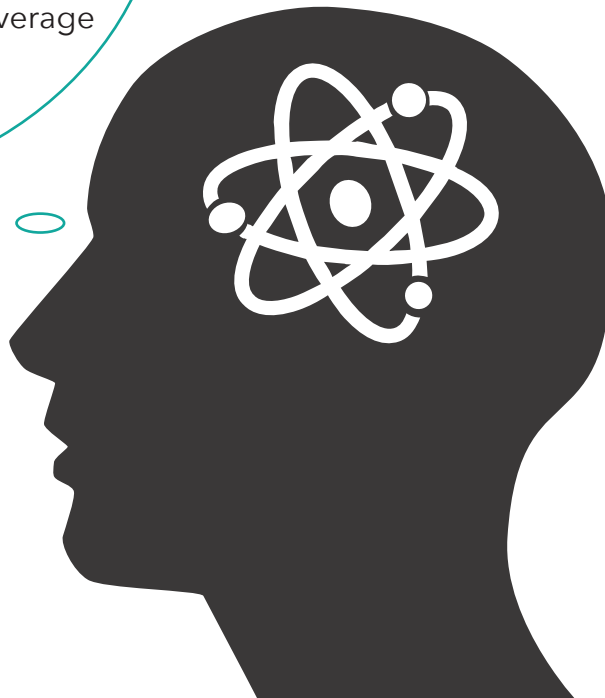
Contact us if you would like an extra hand to figure out your situation.

We are more than happy to answer any questions you may have!

Or **take the assessment online** and we will contact you with the results.

PRICING OPTIONS*

Fundamental Analytics

$300 monthly

Ideal for companies with simple datasets that want to perform more in-depth weekly or monthly customer, HR, operations or transaction reports.

Experts at AAARL can very quickly improve your insights and give you frequent updates about your organization's key success factors. No more blind spots, more opportunities, fewer risks.

Advanced Analytics

$500 monthly

Ideal for organizations that have processes for reporting and complex datasets (complex in frequency, variety and specialty).

AAARL can unveil new insights by combining advanced analytics, such as machine learning and prediction, into your monthly reporting. This will give you more in-depth, actionable insights to form creative hypotheses and ideas, as well as make concrete business cases

Enterprise Analytics

*Flexible pricing starting at $1000 monthly.***

Support all of your team's reporting, business intelligence, descriptive analytics, predictive analytics, optimization, and machine learning needs.

AAARL offers the most flexible, cost efficient way to drive your organization's analytics and business decision-making process to the next level.

*Option to sign up for a month-to-month or full-year contract. Discount given to those who apply for a one-year contract.

Please **contact us here for more information

ABOUT US

Advanced Analytics and Research Lab is a data-driven organization that provides **affordable**, **user-friendly**, and **high impact** analytics solutions, tools, and education for you and your organization. *Our goal is to use data to deliver information you want faster and put the spotlight on the insights hidden within the data to drive the bottom line.* We aim to be the most exceptional and versatile analytics consulting firm on the planet. We strive to be the best consultant you have ever worked with. Services are personal and professional, with focus of **on-time delivery** results that are **relevant** and **practical**.

As a data driven company, we have three lines of businesses, **Analytics as a Service**, **Custom Analytics Solutions**, and **Analytics Education**. We are extremely cognizant of data privacy and security, and take serious steps to protect our clients.

Visit our website **www.aaarl.ca** for more.

CONTACT US

Eric Huang
Founder and Executive Director
Email: eric.huang@aaarl.ca
Phone: 647-568-5757

Vivie Jiang
Director of Marketing and Development
Email: vivie.jiang@aaarl.ca

Matthew Scierko
Analytics Consultant
Email: matthew.scierko@aaarl.ca

FIND US

Website: www.aaarl.ca

Location: Suite 400,

46 Spadina Ave,

M5V 2H8,

Toronto, ON.

Analytics. Anytime.

Visit us at aaarl.ca for more