8 Metrics and Analytics

Organisations use metrics and analytics to continuously improve their digital content in order to better serve customer needs, maintain functionality and remain competitive. It is tempting to use the terms metrics and analytics interchangeably as if they have the same meaning but they are two distinct concepts. Metrics is the process of collecting data. For example, capturing the number of visitors. Analytics is the process of selecting, combining and relating metrics to produce answers to business questions. Analytics are used to inform promotion, content and processes. For example, how do we know if our digital content is succeeding? The answer to this question might involve combining several metrics such as the number of visitors, number of repeat visitors and value of sales. In this way, analytics use metrics to help create understanding of the user experience (Pakkala et al., 2012). Analytics range from simple statistics (e.g. average visitor numbers) to complex modelling of visitor behaviour (e.g. the correlation between search patterns, products in shopping cart, shopping cart abandonment, repeat visits) (Pakkala et al., 2012:504)

Metrics and analytics

Metrics involves identifying and collecting numerical data. Analytics involves selecting appropriate metrics and conducting numerical analysis to show significant patterns in the data. Figures 8.1 and 8.2 illustrate the differences between the concepts. In Figure 8.1 metrics involve deciding the data of interest and the process of collection. In addition, metrics may involve working out the best way to present data in visual form such as the composition of dashboards and infographics. Metrics increase a general understanding on patterns of use but may not provide business insight. In Figure 8.2 we

see that analytics involves articulating the business question, selecting and combining appropriate metrics and then analysing to provide a solution. The process of analytics requires digital marketers to be able to "explore, digest, synthesise and explain" metrics (Micu et al., 2011: 219).

Figure 8.1: Constituents of metrics
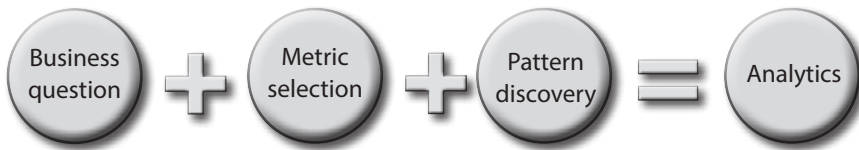
Figure 8.2: Constituents of analytics

◼   Data collection process

Data collection involves three stages: Capture, Understanding and Presenting or CUP (Fan and Gordon, 2014).

- ◼ **Data capture** involves taking decisions on: the site of data capture, i.e. which channel; the focus of data capture, i.e. organisation only or competitors; and the duration of data capture, i.e. trend or single measure capture.

- ◼ **Data understanding** involves selecting the appropriate analytics and determining whether the data used is valid and reliable.

- ◼ **Data presenting** involves preparing reports that are easy to understand by the intended audience who may or may not be data analysis experts.

Any form of data collection process will cost the company in terms of time and money, and it is important that metrics are collected that relate to marketing activities and goals. For example, Jackson (2016:59) writes that "most business questions have a number as the answer". The role of analytics is to inform marketing actions. We can use the marketing mix framework to help us to identify a range of questions that can be informed by digital analytics (Table 8.1).

Table 8.1: Questions related to the marketing mix framework

Mix variable	Question
Pricing	How many customers purchase from us online? Which products do customers place in the basket? Is the basket abandoned? Do customers visit our website after viewing the website of a competitor?
Promotion	Which online messages gain the best response? Who is responding to these messages? Which links encourage click through?
Place	Which devices are used to access website? From which locations do our users arrive? How many customers view our website before buying in a retail outlet? How many customers buy online whilst visiting a retail store?
Product	Which information relating to product is read the most? From which search terms do people arrive?
Process	Is the process of checkout smooth and working correctly? Is the process of viewing the website on a mobile device satisfactory? How long does it take for our staff to answer a complaint or query on social media? How many customers use our website for customer support?

Website metric collection decisions

Website metrics can be gathered in two places, client side (also known as front-end), in the browser that is being used to access the website, or server-side (also known as back-end), by the server which is hosting the website. Beasley (2013) identifies two methods of collecting website metrics: log file analysis, which is server-side, and page tagging, which is client-side. Log file analysis is a longstanding technique. A log file is a text file of all the activity generated by the Web server and provides information on server performance and problems (Peterson, 2004). Log file analysis helps IT professionals manage bandwidth and measure server capacity. Log files contain metrics that can be of use to digital marketers, including the number of site visitors, the number of bytes sent and received, the time and date of the visit, the resource being requested, and the referring page. Whilst some log files metrics have business value, others are more technical with limited business value, such as the IP address of the web server serving the resource to each end user (Peterson, 2004).

An alternative to log file analysis is page tagging. Page tagging gathers metrics by adding in a small piece of programming code to individual web pages. Google Analytics is a popular and well known page tagging tool and analytics programme. When a web page is opened in a browser, a request is

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