

**Multimedia Victoria
Chief Technology Office
Victoria Online**

Web Analytics Toolkit

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Table of contents

Preface	4
Topic 1 - Why is web analytics important to online success?.....	5
Topic 2 - Set realistic objectives for your website	8
Topic 3 - Develop key performance indicators	12
Topic 4 - Implement measurement and reporting mechanisms	15
Topic 5 - Continual Improvement: Practical tips for optimising your website through web analytics	20
Links	24
Appendix 1 – eGovernment Resource Centre's KPIs	27

Preface

The intelligence gathered from measuring and analysing our online service delivery channel is a tremendous resource.

By capturing this intelligence all levels of the Victorian Government will benefit and ultimately the Victorian public.

Website managers are in a better position to optimise their sites by studying content usage and onsite search behaviour. Managers are able to use this data to report on the demand for services and products. Our marketing and communication teams will be able to track and optimise their online campaigns and understand the online behaviours of our visitors. The executive levels of government could use this information to report on the channel performance and to strategically plan for the future.

The Victorian Government is in a position to become a best practise leader in online customer service.

The Victorian Government's web standards will soon include a standard for the measurement of our online channel. Through this process we will **align the measurement strategy with our business strategy** and **set standards and benchmarks for performance**.

With this new direction comes the need to develop new cutting-edge skills. We are going to start small and work with industry leaders in web analytics to transfer this knowledge and support staff whilst they develop these skills. This toolkit is one of the resources we have developed to support staff in web analytics.

We acknowledge that to gain maximum return on investment, the Victorian Government must have the agility to implement this methodology and take action to optimise its online channels.

Topic 1 - Why is web analytics important to online success?

What is web analytics?

Web analytics is the practice of measuring, collecting, analysing and reporting on Internet data for the purposes of understanding how a site is used by its audience and how to optimise its usage. (Definition by the [Web Analytics Association](#))

The focus of web analytics is to understand a site's users, their behaviour and activities.

Web analysts collect user activity data from a combination of quantitative and qualitative sources such as:

- server log files
- browser tags
- search log files
- cookies
- focus groups
- surveys

The methods for collecting user activity data will be discussed in Topic 4.

Why engage in web analytics?

The study of online user behaviour and activities generates valuable marketing intelligence and provides:

- **assurance** - measuring the performance of the website against targets
- **insights** - gaining clarity on user behaviours and needs, and how the site is meeting those needs
- **optimisation** – ability to take action confidently to improve the website based on the results

Consequences of not doing web analytics

There is an old adage that you can't manage what you don't measure – the same is true with your website.

By not doing web analytics you are:

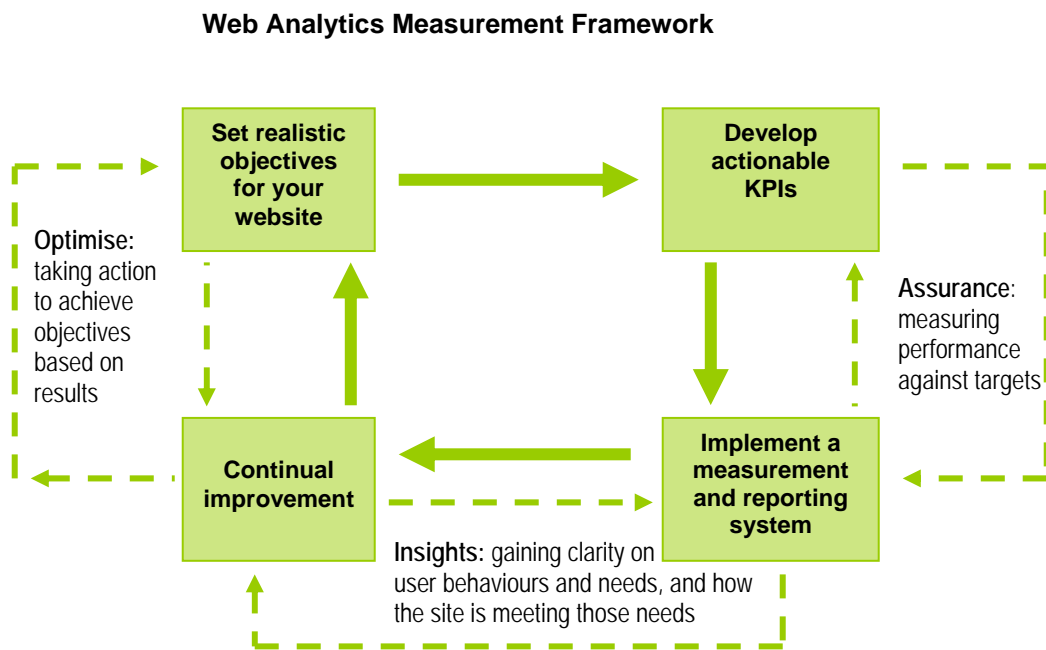
- missing opportunities to know how well your website is performing
- limiting your understanding of your users
- maintaining what could be a broken, frustrating and ineffective customer service delivery channel.

Secret for web analytics success

A successful web analytics practice requires a well-considered yet simple framework that will help you address all the important aspects of your site measurement and reporting. The key components of the framework are:

- Set realistic objectives for your website
- Set actionable and measurable key performance indicators
- Implement measurement and reporting mechanisms
- Continually improve the site through action

The following diagram depicts the relationships between each component of the framework.



Implementing this framework will instil confidence that your methods are as comprehensive, consistent and accurate as possible.

The following sections of this toolkit cover how to set up a framework and run web analytics activities to interpret and understand the site data you collect.

What the Victorian Government is doing about web analytics?

To ensure web managers are able to make informed decisions based on factual data, the Victorian Government has developed [IT&T - 46: Website Measurement Policy](#) requiring all departments and agencies to implement a website measurement facility on their website.

Further Reading:

- Read [DM News' Special Report on Web Analytics: Web Analytics -- Why It Matters](#)
- Read [Avoiding the Most Common Web Analytics Pitfalls](#) by Shane Atchison
- Visit the [Web Analytics Association](#) website for up-to-date information on what is happening in the industry.

- Visit [Hurol Inan's website](#) for a comprehensive list of resources and sign up for [ATTUNED – The web analytics newsletter](#)
- Subscribe to the [eGovernment Resource Centre](#) Newsletter
- Subscribe to the [eGovernment Resource Centre Website Digest Feed](#)
- Visit Eric T. Peterson's website [Web Analytics Demystified](#)

Topic 2 - Set realistic objectives for your website

An average web analytics tool offers over 200 metrics. All are interesting but only a few would be useful for measuring your website's performance.

Focus on what is important

To get meaningful insights about your website, start your web analytics initiative by defining realistic and measurable objectives for your site. These objectives will help you to identify what is important and where to concentrate your measurement and reporting efforts.

Even if you feel clear about your site objectives, please read on, as this topic will help you validate and refine them.

How to decide what is important and set realistic objectives

Objectives define what you want to achieve with your website and how you will measure your success.

Your website objectives should focus on:

- Delivering on business objectives
- Meeting user goals and expectations

Delivering on business objectives

Your website objectives should reflect the goals and mission of your department or agency, and align with the priorities of the Victorian Government.

In general, government websites are self-service sites that empower users to do things for themselves at any time and from anywhere. Access to online information gives users a choice of channel in dealing with the government.

In most instances the overall objective for setting up a government website is to attract and retain customers to the online delivery channel and decrease offline customer service support costs. For further information on the Victorian Government approach and priorities for serving Victorians read [Victoria Government's e-Government Strategies](#).

In addition to meeting Victorian Government priorities, each website may have additional unique objectives based on departmental or agency goals and missions.

For example, a government website may provide information or access to online services ([Victoria Online](#)), facilitate electronic business ([VicRoads: car registration](#)), sell products or services ([Registry of Births, Deaths and Marriages Online Shop](#)), or build a brand ([Visit Victoria](#)).

Each one of these websites is designed to deliver on different government policies and have unique objectives.

Meeting user goals and expectations

A business will not be successful if the customers are not satisfied. The same applies to your website. You must provide a compelling customer experience that creates value for your users and persuades them to take action.

Each website may have a number of different users. For example, the Department of Education and Training may want to simultaneously service teachers, students, parents and departmental staff with their website.

To create a compelling user experience you must study each user segment in detail. Create user profiles for each segment that answer:

- Who is your target market?
- Why would they visit your site?
- What do they wish to accomplish on your site?
- What are the barriers to their satisfaction?

Document the user segments in your website business case and or information architecture plan.

Remember your website is just one way your customers interact with your department. Their customer service experience is only as strong as your department's weakest touch point. Your objectives should complement and support other channels' delivery objectives to deliver a holistic customer service experience.

For more information on the uptake and expectations for the online channel in Australia, read [Australia: Use and satisfaction of E-Government services](#) (2006).

For best practice in online customer service read, [Building the Trust—Accenture's Seventh Global Report on Government Service Delivery](#) (2006).

Attributes of realistic objectives

Now that you have a better idea of the strategic direction and purpose for your website and understand its target audiences, the next step is to write your objectives.

Realistic objectives should be:

- specific
- detailed
- measurable
- achievable

Example for Setting Realistic Objectives

A department would like to keep the Victorian community, including residents, businesses, local government, communities and investors and developers informed of a key initiative. The website aims to encourage the uptake and rollout of the initiative across the State.

As part of the planning process, the project team is set to define the objective of this website and starts evaluating the following options:

Suggested Objective	Comments
Publish information online	A bad example because it states the activity but not what is intended to achieve by publishing the information online.
Provide up-to-date information on the initiative	A bad example because it is not specific enough, it does not explain why, the same statement would equally apply to the print materials for the campaign.
Provide easy access to up-to-date information on the initiative through an interactive website	A better example because it specifies the method and the intention to make the information more accessible, however not easily measurable.
To reach, through an interactive website, residents, businesses, local government, communities and investors and developers to provide up-to-date information that will reduce call centre enquiries by 10% month over month and decrease print material costs by 50% over previous campaigns.	Good example because the objective specifies the method, target audience and what is expected to be achieved by using the website as a channel of communication for this campaign.

It is important to note that the website objectives should evolve as the organisational objectives change and more information about the customers' need become available.

ACTIVITY: Deriving website objectives through a group Q&A

Engage in a facilitated discussion to derive your website objectives. Invite 4-6 people representing key parts of your department or agency such as senior management, service delivery, marketing and communications and content owners.

Set aside 1-2 hours to do this exercise.

To get the discussion flowing, consider these questions:

- What is your organisation trying to achieve with the website?
- What defines the success of your online efforts?
- What hinders your chances of online success?
- How are you creating value for your customers?

Document your objectives in your website business case and/or information architecture plan.

Further reading:

- Visit the [eGovernment Good Practice Framework](#) website for best practice in the EU
- Review the Australian Government's [Better Practice Checklist - Website Usage Monitoring and Evaluation](#)

- The US Government's [Your Guide to Managing US Government Websites](#) is a comprehensive source of information.
- The US Government defines six objectives: reach, relevance, packaging, access and collaboration, quality, operations. For more information read [Sample Strategy for Evaluating Government Web Sites](#) [doc].
- The [Canadian Government](#) encourages their departments to look at Value Proposition, Institutional Framework and Web Objectives when setting objectives.

Topic 3 - Develop key performance indicators

In the previous topic you identified what is important to your organisation, what makes it successful and the role your website will plan. Now, it is time to identify the key performance indicators to measure your progress in achieving these goals.

Key performance indicators or KPIs are a simple and practical technique widely used by organisations to measure performance. They are suitable for measuring website objectives.

What is a key performance indicator?

[Webopaedia](#) states KPIs should help organisations achieve organisational goals through the definition and measurement of progress.

A good key performance indicator should:

- be agreed upon
- quantify objectives
- present current state
- set direction
- prompt action
- be measurable
- be achievable

KPIs are often expressed in rates, ratios, averages, percentages - they are not raw numbers.

Example

Your department may be focussing on improving the customer service levels, setting the **average time to respond to email enquiries** as one of the key performance indicators. You work towards responding to each email within 48 hours. This KPI might be presented as:

Objective	Key Performance Indicator	Expectation	This week	Last week	Change	Warnings	Internal Owner
In 2007, improve the online customer experience to achieve a customer satisfaction rating of 99% as measured by X	Average Time to Respond to Email Inquiries (48 hours)	48	36	42	▲	☺	Senior management

Adapted from Eric T Peterson's Big Book of Key Performance Indicators

In this example, the senior manager responsible for achieving this KPI opens the report and sees quite quickly that this KPI is being met. The manager acknowledges that the training on the new email management system the staff attended last week has improved response rates and organises a morning tea to share the good news, congratulate the staff for a job well done and set a new continual improvement challenge. The KPI report has provided immediate and valid feedback to the manager and he is able to share the success with his manager.

Compare this with the following report:

Emails	This week	Last week
Emails received	112	110
Emails responded to	91	85

Here, the senior manager opens the report and looks at it blankly and silently asks “What does this mean?”, “How have we created value for our customers?” and closes it with a mental note to deal with it later. There is no morning tea or celebration with staff and the continual improvement process stops. The manager has nothing to report in his next meeting with his manager.

How do I develop KPIs?

The challenge is to choose the KPIs that will drive action and challenge you to continually optimise your site to achieve your objectives. It is important to understand the difference between an interesting metric and an insightful KPI. Peterson, in his book, suggests:

KPIs should never be met with a blank stare. Ask yourself “If this number improves by 10% who should I congratulate?” and “If this number declines by 10% who do I need to scream at?” If you don’t have a good answer for both questions, likely the metric is interesting but not a key performance indicator.

When developing your KPI reports it is important to:

- Keep your target audience in mind. For instance, senior management would be interested in different KPIs than a content owner.
- Limit the number of KPIs to a few, 3 – 8 per recipient. This will help you to focus on the most important aspects of your site and ensure the recipient receives only the data they need to do their job.
- Visually present your KPIs. Use your spreadsheet program of choice and employ colours, time comparisons, alerts and other visual aides to convey insights and create interest for your reader.

Eric T Peterson in his book, [Big Book of Key Performance Indicators](#), has identified a number of key performance indicators that you may wish to use.

[Refer Appendix 1](#) to see the key performance indicators Multimedia Victoria’s eGovernment Resource Centre uses to measure their performance against.

ACTIVITY: Customising a KPI template

Purchase Eric T Peterson’s [Big Book of Key Performance Indicators](#). This includes a very useful collection of KPI Excel Spreadsheets which you can customise to meet your needs.

KPI Challenges

KPIs for the many purposes (and stakeholders) of one website

You may have found when you were developing the objectives for your website that there are sections within a website that serve different purposes. In most instances, there should be a different stakeholder for each different purpose and as such, each would receive the specific KPI report for their area.

It is also possible that some of sections of your site are campaign or event related. They are extremely active for the duration of the campaign or event. Specific KPIs and / or campaign performance reports should be devised in these instances.

Setting realistic target values

Setting a realistic target value for a KPI could prove difficult to start with, especially if the current levels of performance are unknown. You should therefore first define the KPI, start measuring it for a period of time, if possible study the past performance, identify improvement opportunities in this area, and then consider setting targets. This way you will define more realistic and achievable targets.

Integrating KPIs from other channels

Remember that web analytics encourages a holistic approach to measuring, collecting and reporting against objectives. For example, if your website objective is to reduce offline delivery costs – measuring, collecting and integrating inbound call-centre metrics with web analytics is vital to providing insights into the complete customer service experience.

Further reading:

- Web Analytics Association produced an introductory guide titled [Web Analytics, Key Metrics and KPIs](#) (2005).
- Eric Peterson wrote an excellent book on the subject titled [The Big Book of Key Performance Indicators](#) (2005).
- For up-to date articles on this topic visit [Huro! Inan's - Key Performance Indicators](#)
- Read [Web Analytics Reporting Framework: How do I report on Web Analytics?](#) by Huro! Inan (2006)
- Visit the eGovernment Resource Centre's section on [Key Performance Indicators](#).

Topic 4 - Implement measurement and reporting mechanisms

Part A: Understanding data sources

User activity data is the underlying data for measuring your key performance indicators and analysing your website's performance.

How is the user activity data collected?

There are two distinct methods to collect user activity data:

- **Web server log files** – Web servers are capable of logging “user requests”, or a user's movements around a website. These files can be used to perform analysis and create reports on website traffic.
- **Tracking scripts inserted into web pages** – With this approach a small java script is inserted into a web page and every time the page is downloaded into a user's browser, this script executes itself, capturing information about the activity performed (such as the page viewed, time of viewing, etc).

Also referred to as browser-based measurement, the scripting approach has become the most popular approach. The chief reason for the popularity of this technique is the high levels of caching that takes place on the Internet to boost the speed performance. Popular web pages, for example, are copied by ISP's to serve them to their users quickly. Since the web page contains the tracking script, regardless of how it is served to the user, it will execute each time the page is downloaded on the user's browser.

The majority of Victorian Government websites adopt tracking scripts.

Further reading:

For more information, read [Data Collection Techniques](#) by Stratigent.

Read [Web Analytics by Wikipedia](#)

ACTIVITY: Spotting tracking codes

To check if a website is using a tracking script, right click on a web page and select “view source”. Tracking scripts are usually inserted to the end of the page and marked clearly. For example, Victoria Online was using SiteCensus tracking codes at the time of writing this toolkit and the tracking code starts with <!--START RedMeasure V4 - Java v1.1 Revision: 1.8.1 -->.

Go to one or two of your favourite websites and try to locate the tracking codes.

Enriching standard user activity data

Standard user activity data can be enriched through:

- **URL tracking parameters** – Tracking parameters are added to a web page's URL so you can collect additional information about site usage. For example. to

understand what the users are searching for, you can put the keywords being searched for into the URL of the search results page. That result page's URL will then look like this: "search_results.html?keyword=public holidays".

- **Cookies** - Cookies are small packets of data deposited on the computer hard disk of the user when the person visits a website. Cookies can contain all sorts of information, such as visitor's unique identification number for that site; the last time that person visited the site and so on. Your web analytics solution can be configured to detect the cookie for identifying returning users and read its content for more advanced reporting such as recency of a visit.
- **Online forms** - Forms often constitute low-cost/high-value interaction points for websites. They are part of shopping carts, they facilitate many online processes such as applications, subscriptions, registrations, or they are simply used to seek feedback. Your web analytics solution can be configured to capture certain information collected from web forms through custom fields for more advanced reporting such as demographic profiling.

More is possible

You may be surprised at the number of additional sources of data available to you:

- **Content management systems** - Integrating content production with web analytics brings added value. A content owner could quickly tell if anyone is reading a page and identify old content for review.
- **Site search engine** – Your site search engine provides extra levels of intelligence about your users and their needs. Commercial site search engines provide reporting capabilities, may even allow dynamically add new synonyms or alter the search results rankings.
- **Email campaigns** - Integrating data from your email campaigns and newsletters such as open rates and clicks thru rates for insights into how effective these campaigns are for driving traffic to your site.
- **External demographics and comparative/competitive analysis** – This data will help you to understand your user demographics and benchmark your performance.
- **Other corporate systems** – Some websites expose corporate systems to their customers. Integrating data from corporate systems into your web analytics solution may provide additional insights.

For each one of these data sources, speak to your IT personnel to find out the nature of reporting provided by these systems and consult with your web analytics vendor to discuss the benefits of integrating them with your web analytics solution.

Qualitative data

In Web Analytics, to understand the 'why' behind an issue revealed by quantitative data, we turn to qualitative data. Sources of qualitative data include:

- **Surveys** – Online or offline surveys are one way to capture information on what customers think and how they feel. Read [Beyond Web Analytics Data: Online Surveys by Neil Mason](#)
- **Focus groups** - Focus groups are small groups of people gathered together to discuss a topic of interest and provide their opinions.
- **User testing** – Testing could take place in a lab or online where participants are asked to undertake a task. Read [Prioritize Usability Testing and Web Analytics by Bryan Eisenberg \(2005\)](#)
- **Expert Reviews** - Experts in web analytics and user experience design can interpret the quantitative data to explain user behaviour or potential problems with a site's architecture and traffic quality.

Further reading:

- [Integrating E-Mail Marketing and Web Analytics by David Daniels](#) (2005).
- [Build on Competitive Data to Improve Site Performance by Jason Burby](#) (2004)
- [Competitive Intelligence Analysis: Why, What & How to Choose](#) by Avanish Kaushik (2006).
- [Cross-Pollinate Data and Harvest Better Information](#) by Jason Burby (2004)
- [Data Integration, Part 1: Macro Integration](#) by Neil Mason (2006)
- [Combining Web Analytics and Qualitative Insight](#) by Jason Burby (2006)
- [If You Already Have the Ruby Slippers, Click](#) by Jason Burby (2004)

Part B: Configuring your web analytics tool

Now that you have identified the sources of data that you will use, it is important to configure your web analytics tool well to ensure highly accurate and reliable results.

Is your site tracking at 100%?

To ensure the integrity of your data it is vitally important to prepare your site for measurement.

1. Ensure your page titles are unique. Why? Unique titles will ensure you will be able to differentiate, quickly and easily, between the pages in your reports.
2. Implement web measurement code correctly and completely, by ensuring you have:
 - the latest version
 - placed correctly in the page
 - rendered on all required pages, including new and updated pages.

If you are using a content management system, seek practical ways of inserting the tracking codes on web pages (such as including it in a common footer or template pages). In the absence of a content management system, explore with your IT personnel if a program script can be developed to insert the code automatically on all pages. Another version of the same script program could be used regularly to verify that all the pages contain the correct tracking code.

These small steps will help maintain the integrity of your data. Contact your web analytics vendor and your IT team for further information and advice on how to get your site ready for tracking or how to maintain the integrity of your tracking practices.

Further reading:

[Don't Get Blown Off Course With Poor Analytics Data by Jason Burby](#) (2004)

URLs and directories play an important role in configuration

Ensure your URLs are given meaningful names and grouped under logical directories or folders. This simple process will improve the insights you gain from your web analytics data. How?

Arguably one of the most important aspects of web analytics is segmentation. Don't try to understand website users as a whole, even with the best interpretation skills, you will be stuck.

The best practise is to segment, that is to identify and isolate certain website usage behaviour for further scrutiny to gain more specific insights. On the Victorian Skilled Migration website, for instance, you may want to study the usage patterns, by their country of access, of people who are applying online for migration. This study will not only benefit the marketing department but also reveal the performance of the online application process.

To be able to conduct such analysis, the relevant page URLs should be easily identifiable, for each stage of the application process, and easily grouped together.

Most web analytics solutions offer segmentation capabilities but may label it differently, for example channel, content group, segment. Speak with your vendor for further information on how your web analytics tool is able to segment or label your visitors by activity and behaviour.

How web analytics tools identify users

Web analytics relies on accurate user identification methods to provide information on session visitors and to keep track of their behaviour from session to session.

Web analytics tools need a way of identifying users to be able to report on user sessions (also referred to as visits).

There are different techniques to identify users such as IP addresses, user agent and IP address combination, cookies, authenticated user.

Nowadays, the most common user identification technique is via cookies which are small packets of data that are usually deposited on the computer hard disk of the user when the person visits a website.

There are several types of cookies:

- **First Party Cookie** is served from the website being visited.
- **Third Party Cookie** is served by a third party organisation such as ad agencies or web analytics vendors on behalf of the website being visited.
- **Session Cookie** is not saved to the computer and expires at the end of the session.

Increased cookie blocking and deletion practices whereby users configure their browsers to not accept the cookie or manually remove cookies from their computers presents a challenge for web analytics tools to accurately identify users. The current research shows that users are less likely to delete first party cookies.

Further reading:

Read [User Identification Techniques and Cookies by Hurol Inan](#) (2006) and [Accurate Analytics Requires Cookies by Bryan Eisenberg](#) (2004).

The [Australian Government Information Management Office](#) provides comprehensive information on the use of cookies in the government environment.

Why different measurement tools get different results for the same site

It is almost definite that reports produced by two web analytics tools on the same website will never agree completely.

As discussed in Topic 4 Part A, user activity data can be sourced from web server log files or browser-based tools. These two data sources are guaranteed to deliver different results.

Differences in user identification techniques also cause reporting different results.

Understanding your web analytics vendor's measurement methodology and the definition of metrics used in your reports will inform you about possible issues with the measurement and factor these into your analysis.

Topic 5 - Continual Improvement: Practical tips for optimising your website through web analytics

A key philosophy of Web 2.0 is that websites should always be in beta version. They are never 'finished'. Websites are an opportunity for you to have a dialogue with your customers; rather than you subjecting them to a monologue. ([Learn more about Web 2.0 from Wikipedia](#)).

A common misconception is that a website is a computer program. Once you build it, it will remain the same. While a site's infrastructural components may stay in place for a long time, the navigational and architectural design of a website is often an approximation when it is first built.

As users start using the site, its failings can be understood and adjusted to make it easier for customers to find what they are looking for and to interact with the site at appropriate levels.

This is called **website optimisation**. This topic covers **where** you should focus your optimisation efforts and **what** can be optimised.

Where should you focus your optimisation efforts?

With all this data to analyse, where do you start? Here are some suggestions:

- **High traffic areas:** Start to gain an understanding of the needs and behaviours of your visitors by looking at the high traffic areas of your site. This will give you an idea on what is important to your visitors or what is creating a bottleneck. Also check to ensure the content areas are getting the traffic they deserve. For example, if the site search results page attracts a lot of traffic look closer to see if this is because your site search function is not working as well as it should.
- **Pages with high exit rates:** The key to website success is keeping your visitors engaged whilst they complete their task. Pages that show a high exit rate, that is where the user views that page and then leaves the site, should be investigated as a priority. A high rate of exits could be a symptom of a page loading error, a bad link, poor or absent call to action or irrelevant copy to name a few. In some instances, a high exit rate is desired. This could be, for instance, where the user is intentionally directed to another site to complete their task.
- **Landing pages:** Landing pages are usually created to support campaigns, promotions and offers. The success of landing pages is determined by their ability to draw visitors further into the website and their ability to contribute to conversion or the completion of a task. High exit rates from a landing page should be investigated as a matter of priority. This could be a symptom of the page not delivering on the message promised to the visitor by the referrer, either a search engine, email or online advertisement.

What can you optimise for better performance?

Various aspects of your website can be studied for optimisation purposes such as:

- Navigation
- Lists
- Calls to action
- User Tasks

- Copy
- Content
- Internal search engine
- Search engine referrals
- Online forms
- Email Campaigns

Each of these is briefly described below.

Navigation

Effective navigation is essential to helping your visitors find what they are looking for on any website. Studying its effectiveness is very rewarding.

To find out how effective your site's navigation is, start with the primary navigation. At each level, segment the usage levels of each menu option. If you discover that one of the menu options receive a significant proportion of the traffic, say 70%, and the each of the others are receiving less than 10% then you may have a problem. The menu may be unbalanced and this menu option could be broken down into multiple items. Continue with the same exercise at other levels of the menu.

Lists

Every website has lists. A list could be a collection of links, menu items, or important points in an article. Lists often contain highly important information or calls to action.

Lists suffer from sequence bias where the first item is often clicked the most. Web analytics tools provide a 'page overlay function' to view click-thru patterns. Use this function to study relative link popularity, and then place links in order of popularity, taking into consideration the links *you* want your users to click on most.

This simple optimisation technique will help visitors find what they are looking for more quickly.

Calls to action

It is surprising the number of websites that forget to ask or motivate the user to take action. This marketing technique, known as a call to action, could be as simple as "Download the 2007 course guide" or "Sign-up today for the next "dealing with government" seminar".

A good call to action takes into consideration placement and wording. Use your web analytics tool to track the click-thru rates for each call to action. Test wording and placement to optimise conversion. For further information and examples on calls to action, read [The Resolving Door](#) by Bryan Eisenberg.

User Tasks

Online users are task-oriented. People come to your website for a reason. This reason is varied and may include looking for the location of an office, researching a piece of legislation, paying for their car registration or downloading a form.

Your job is to help your visitors achieve this goal as quickly and easily as possible. How? Firstly, identify the key tasks for your site and the paths visitors may take to achieve these tasks. Next,

use your web analytics tool to track these paths. The tool should be able to produce a visual engagement funnel that advises you on points of abandonment. Review these abandonment points to gain an understanding of why visitors are dropping out at this stage.

Text / Copy

Your website wording or text, known as copy, directly influences the customer experience. Dull, long and lifeless text only leads to frustration which equates to high exit rates and people finding the information they seek through other more expensive avenues such as the call centre.

Your copy should reflect your organisation's brand attributes, eg scholarly, technical, youthful or helpful. It should get to the point – and fast.

Use your web analytics tool to identify pages with high exit and abandonment rates. Follow [Bryan Eisenberg's](#) tips for creating persuasive copy and taking one page at a time, test and implement your enhanced copy. Track the effect the enhanced pages have on the exit and abandonment rates and soon you will pinpoint the style of writing that persuades your target audience to take action.

Content

Many websites provide certain types of content in large quantities such as product descriptions, news, courses, etc. These content elements are often organised around a (multi-level) classification, categorisation, cataloguing schema.

Use your web analytics tool to analyse the popularity of content elements and the effectiveness of the categorisation schema to reveal insights into your customers and provide opportunities to optimise your website content. Contrasting the cost of content development by the amount of content consumption could be quite revealing.

Internal search engine

Users search either to navigate your site or when they are stuck and unable to find what they are looking for. Studying the usage of your website's internal search engine can reveal marketing intelligence and also help you spot the failings of your website. Referred to as "search analytics", this study is undertaken to understand how well the internal search engine functions on websites and how it can be optimised.

Where to start with search analytics? Firstly, you must collect the data. This could be collected either through log files or through your web analytics tool using URL parameters.

To get started, analyse this data to identify top keywords, search terms that yielded no results and click-thru rates from the search results page. This analysis will provide valuable market research into what your customers are looking for and the words, language and terminology they use to describe it. Use this intelligence in your copy and calls to action to maximise conversions and task completions.

For further information on how to gather, report and analyse internal search, read [Search Analytics – Web Analytics Resources](#) by Hurol Inan.

Search engine referrals

Search engines are a vitally important tool to help people find your website.

Use your web analytics tool to track referrals from search engines, and analyse, in particular, visits that only view one page. This behaviour could be a symptom of the search engine description of your site providing a different message to the one that could be found on the website.

Further reading:

- Information on meta tags and search engine optimisation read the [Victoria Government's Search Engine Optimisation Toolkit](#).
- The eGovernment Resource Centre's section on [Search Engine Marketing and Optimisation](#)

Online Forms

Online forms, or web forms, often constitute high value interaction and conversion points of websites. Examples of an online form include parts of a shopping cart, an online application form, subscription sign ups or feedback forms.

Most online forms are poorly implemented and lead to large proportions of form abandonment. Web analytics can be used to track, analyse and optimise online forms. For more information on online form analysis read [Online Form Analysis - What to measure and how to do it](#) by Michael Kelleher.

Email

Email campaigns are effective for maintaining dialogue with the target audiences and drive well targeted quality traffic to websites. An HTML email should be treated like a web page and analysed and optimised for maximum return. Use an email campaign management solution to report on open and click-thru rates. Isolate email influenced traffic on your website by integrating it with your web analytics tool.

How to maintain site integrity when introducing changes?

Planned change will always go more smoothly than haphazard change. When introducing a change, consider the following:

- Plan for its potential impact on the existing site. For example, ensure you maintain persistent URLs and enable redirections during and after site changes. This will allow your visitors to acquaint themselves with your new site without being served a page error message.
- Decide how the change will be measured and monitor the performance of the change until it becomes a stable component of your website.
- Use A/B or multivariate testing to test for high value, significant changes to existing popular functionality. For further information, refer to [A/B and Multivariate Testing resources](#) provided by Huro! Inan.

Links

Topic 1 - Why is web analytics important to online success?

- [Web Analytics Association](#)
- Read [DM News' Special Report on Web Analytics: Web Analytics -- Why It Matters](#)
- Read [Avoiding the Most Common Web Analytics Pitfalls](#) by Shane Atchison
- Visit the [Web Analytics Association](#) website for up-to-date information on what is happening in the industry.
- Visit [Huroi Inan's website](#) for a comprehensive list of resources and sign up for [ATTUNED – The web analytics newsletter](#)
- Subscribe to the [eGovernment Resource Centre](#) Newsletter
- Subscribe to the [eGovernment Resource Centre Website Digest Feed](#)
- Visit Eric T. Peterson's website [Web Analytics Demystified](#)

Topic 2 - Set realistic objectives for your website

- Read [Australia: Use and satisfaction of E-Government services](#) (2006)
- Read [Building the Trust—Accenture's Seventh Global Report on Government Service Delivery](#) (2006)
- Visit the [eGovernment Good Practice Framework](#) website for best practice in the EU
- Review the Australian Government's [Better Practice Checklist - Website Usage Monitoring and Evaluation](#)
- The US Government's [Your Guide to Managing US Government Websites](#) is a comprehensive source of information.
- The US Government defines six objectives: reach, relevance, packaging, access and collaboration, quality, operations. For more information read [Sample Strategy for Evaluating Government Web Sites](#) [doc].
- The [Canadian Government](#) encourages their departments to look at Value Proposition, Institutional Framework and Web Objectives when setting objectives.

Topic 3 - Develop key performance indicators

- [Webopaedia](#) definition of a key performance indicator
- Purchase Eric T Peterson's [Big Book of Key Performance Indicators](#)

- Web Analytics Association produced an introductory guide titled [Web Analytics, Key Metrics and KPIs](#) (2005)
- For-up-to date articles on this topic visit [Hurol Inan's - Key Performance Indicators](#)
- Read [Web Analytics Reporting Framework: How do I report on Web Analytics?](#) by Hurol Inan (2006)
- Visit the eGovernment Resource Centre's section on [Key Performance Indicators](#).

Topic 4 - Implement measurement and reporting mechanisms

Part A

- Read [Data Collection Techniques](#) by Stratigent
- Read [Web Analytics by Wikipedia](#)
- [Integrating E-Mail Marketing and Web Analytics by David Daniels](#) (2005).
- [Build on Competitive Data to Improve Site Performance by Jason Burby](#) (2004)
- [Competitive Intelligence Analysis: Why, What & How to Choose](#) by Avanish Kaushik (2006).
- [Cross-Pollinate Data and Harvest Better Information](#) by Jason Burby (2004)
- [Data Integration, Part 1: Macro Integration](#) by Neil Mason (2006)
- [Combining Web Analytics and Qualitative Insight](#) by Jason Burby (2006)
- [If You Already Have the Ruby Slippers, Click](#) by Jason Burby (2004)

Part B

- Read [User Identification Techniques and Cookies by Hurol Inan](#) (2006)
- Read [Accurate Analytics Requires Cookies by Bryan Eisenberg](#) (2004)
- The [Australian Government Information Management Office](#) provides comprehensive information on the use of cookies in the government environment.

Topic 5 - Continual Improvement: Practical tips for optimising your website through web analytics

- [Learn more about Web 2.0 from Wikipedia](#)
- Read [The Resolving Door](#) by Bryan Eisenberg
- Follow [Bryan Eisenberg's](#) tips for creating persuasive copy

- Read [Search Analytics – Web Analytics Resources](#) by Hurol Inan
- Read the [Victoria Government's Search Engine Optimisation Toolkit](#)
- Refer to the eGovernment Resource Centre's section on [Search Engine Marketing and Optimisation](#)
- Read [Online Form Analysis - What to measure and how to do it](#) by Michael Kelleher
- Refer to [A/B and Multivariate Testing resources](#) provided by Hurol Inan

Appendix 1 – eGovernment Resource Centre’s KPIs

Objectives and benefits

The eGovernment Resource Centre is

- a showcase for Victorian leadership and innovation in eGovernment thinking and implementation
- a major research site identifying eGovernment international best practice information and resources
- a research tool for those interested in eGovernment - Victorian government personnel, eGovernment practitioners, commercial suppliers and the general public
- a repository for Victorian eGovernment project information and resources

Site usage

Definition: Site usage is a composite calculation of Page Impressions, Unique Visitors and User Sessions averaged for the month.

Visitor Analysis

Definition: Visitor Analysis is derived from geotargeting data which is location based information on the origin of site visitors – derived from IP address-based geo-location technology to determine geographical information reporting user sessions.

Returning Visitors

Definition: Returning visitors is calculated using a cookie resident in the in the visitor’s browser. Visitors who erase this cookie from their computer’s hard drive, either manually or using some anti spyware software can impact this calculation by then becoming new visitors. Short term measurements of visitors are less affected than long term.

How Do Visitors Arrive at the Site

Definitions: Search Engine Referrals – search engines which have referred visitors to the eGov Resource Centre; Website Referrals – websites which have links on their site to the eGov Resource Centre which visitors have clicked on; Direct Entry to the site – visitors which have either clicked on a link in an email message or typed the url of the site directly into their browser navigation window or have book marked the site in their web browser.

Mailing List Subscriptions and Memberships

Definition: Mailing list subscriptions – the number of new subscriptions to the newsletter. Memberships – the number of new eGov Resource Centre Members. Members have the added benefit of being able to bookmark their favourites on the site and rate content according to its perceived value.

RSS Feed and Newsletter Content Usage

RSS and Newsletter Clickthrough

Definition: *RSS Clickthroughs* (RDF Site Summary - formerly called Rich Site Summary or Really Simple Syndication) the number of times a person has clicked on a link in an eGov RC RSS feed which takes them through to site content. *Newsletter Clickthroughs* – the number of times a person clicks on a link in the email newsletter which takes them through to site content

Newsletter Clickthrough Rate

Definition: Clickthrough rate - the ratio of the number of times a subscriber clicks on a link in the email newsletter per the number of [subscribers](#) to the newsletter

Some Key Statistics to Track to feed into KPI development

General Statistics

- Overall Traffic Volume (Page Impressions)
- Victorian Traffic Volume (Page Impressions)
- Number of Visits (User Sessions)
- Victorian Visits (User Sessions)
- Number of Visitors (Unique Browsers)
- Victorian Visitors (Unique Browsers)
- Number of Returning Visitors (Unique Browsers)
- Percent New Visitors
- Percent Returning Visitors
- Ratio of New to Returning Visitors
- Average number of pages viewed per visitor
- Average site usage
- Average Victorian site usage

Key Conversion Rates:

- Newsletter Clickthroughs
- Total Newsletter sign ups month end
- Newsletter Clickthrough Rate
- RSS Clickthroughs
- Mailing list subscriptions
- Membership signup

Audience

- Australia (including Victoria)
- Victoria (as a % of the total Australian usage)
- Overseas

How do Visitors Arrive?

- Search Engines
 - Number of external search engine referrals
 - Number of internal searches
 - Total Google Referrals
 - Percentage Google Referrals
- Website Referrals
- Direct Entry

External Referring Domains

- Top 5

Keywords Search Engine Ranking

- Ranking for the site on search engines for specific keywords