Self Employment, Enterprise and the Internet

Technology that can be used when Starting a Business on the Internet

Contents

Explanatory Introduction

New Internet based technologies are appearing at an astonishing rate and the pace of change is increasing rapidly. Many businesses recognise that making the best use of emerging technologies is important for reducing their costs and finding new routes to customers but also, and perhaps more importantly, to find sustainable competitive advantage.

For many organisations every aspect of business can and often is performed online. From the initial concept and business planning through setting up a Limited company, liaising with Government departments for licences or tax purposes, purchasing equipment and stock then selling it to customers while taking and making payments, no human interaction need actually take place.

But more than simply being a new way of working, the internet is also enabling who new business models and ways in which businesses organise themselves to evolve; where a business has no physical office and staff who may be self-employed sub-contractors who work together on specific projects, that business is likely to be seen as a virtual one.

The IT provides ways for these workers to communicate and cooperate for their benefit and the benefit of the virtual business as a whole. This may be of benefit to a whole range of businesses especially smaller ones that don't need a physical presence as it can reduce a large business expense and save valuable commuting time. It allows groups of individuals to act as a larger organisation would, often without many of the cost overheads of larger businesses. Critical to the virtual business is high speed connection to the internet through which all of the organisation's data, communications, systems and processes can be accessed by each individual involved.

Unfortunately the world of technology and business is full of acronyms and terms that anyone setting up a new business may be unfamiliar with. One good example of this is SAAS which stands for "Software as a Service" also known as "Cloud Computing". Cloud Computing uses internet technology to connect your computers and other devices, which may be located many miles away (even in different countries), together. It also connects these devices to online data storage services and business applications meaning that your valuable data and systems are therefore protected from hazards and disasters such as fire, flood, and theft. Your data can grow with your business as well as being available 24/7 to many users without the need for you to distribute it to them.

Perhaps the key benefit to this is that IT systems are managed and maintained by computer experts who are responsible for backing up and protecting your data, freeing up valuable time for the organisation to concentrate on delivering projects, value to customers and increasing profitability. The costs of many of these services, which used to be prohibitive to small businesses, are dropping as rapidly as new technologies are appearing. Creating further opportunities for organisations to develop new cost-effective ways of working.

When starting to evaluate these technologies we feel it is important to look at the advantages and disadvantages of each from a business perspective first. So in this document we consider the elements and functions of business first (although one technology may be useful in many areas of business) rather than by the specifics of the technology itself.

ELEMENTS OF BUSINESS WHERE TECHNOLOGY CAN BE BENEFICIAL

There are many features of any new business that need to be planned, resourced and developed. Some of those elements are listed, the types of technology identified and the benefit to the business outlined. We mention and give links to several specific products and service for examples only as we do not endorse any one vendor over another. This guide is not intended to be exhaustive, instead we focus briefly on three areas of business related Information Technology; Business Operations, Equipment and Marketing and cover some of the key technologies or issues in each of these areas.

BUSINESS OPERATIONS

Email was one of the first tools to utilise the network of connected computers that eventually became the internet. Although most people now use email as a most basic (yet powerful) tool to communicate, it is also one of the most effective marketing channels. To ensure an email marketing campaign ensures a good return on investment, it must be closely tracked allowing the business to see conversion rates and identify areas for improvement. "Google Analytics" for example is one of the many providers that offer tracking of links within emails to generate detailed reports on customer response rates. This shows that one of the most basic tools can, with a little innovation, become powerful and profitable. At least one email address is usually provided free of charge from your Internet Service Provider (ISP) but for a small extra charge you can purchase a domain name which looks more professional and often comes with almost unlimited email addresses. The domain name is also used as the web address (www…) of your web site. Once you have secured a domain name you can create a whole range of services from it that are discussed further on in more detail.

Useful links & resources; Web hosting & email
- 1and1 www.1and1.co.uk
- Google – mail.google.com
- Hotmail – www.hotmail.com

Buying Online will be a relevant consideration for most new businesses and it can help you to save money; the effective buying of goods can make a si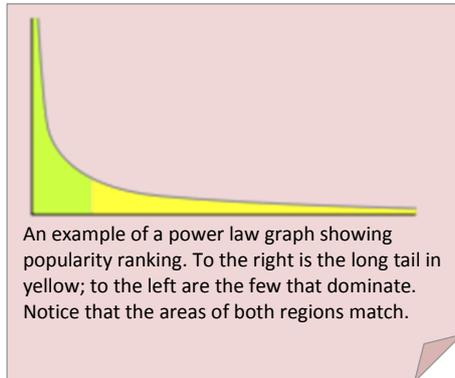gnificant difference to your bottom line. The worldwide web has made it so much easier to find online suppliers, compare their prices and buy from them, ensuring that you get the best products at the best prices – not only stock and components, but also essential on-going consumables such as stationery. Of course it's not just products you can purchase on-line as many organisations now provide their services over the Internet including; insurance, accountancy, graphic design, secretarial support, sales & marketing, etc. This list also now extends in many countries to services provided by local and central Government bodies enabling the purchasing of a vehicle road usage tax for example in the UK. For almost all products comparison sites allow specific items to be sourced at the best price whilst auction sites such as eBay and Amazon can be invaluable in finding scarce items. It is the powerful front ends of these sites that allow them to appeal to many buyers, making online purchasing easy to save you time and money.
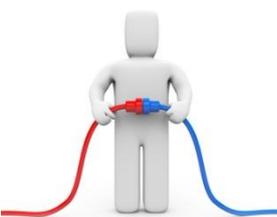
Useful links & resources; Buying Online
- Amazon – www.amazon.com
- eBay – www.ebay.co.uk

Buying and selling on line & **The Long Tail** - The huge reduction in overhead costs often

An example of a power law graph showing popularity ranking. To the right is the long tail in yellow; to the left are the few that dominate. Notice that the areas of both regions match.

associated with a purely on-line purchasing model has enabled a whole range of new businesses to develop, delivering what would have previously been very niche products with small potential markets. In effect it allows manufacturers, wholesalers and specialist retailers to make a profit from very low turnover items which would have been previously unprofitable to stock because of warehousing costs or lack of shelf space. This new distribution model has been coined "The long tail" as on a graph it shows that profit from sales of a very large number of less popular products which would have previously been too costly to fulfil, are actually as much as or more than the smaller number of popular products.

Online Banking is the management of your small business bank accounts across the internet using your own PC or other Internet connected device, 7 days a week, 365 days of the year. With online banking you log in to a secure website where you can see your banking accounts displayed in the screen. At this point you can check daily balances, pay bills, transfer funds and many other activities such as applying for a loan or overdraft. This can save considerable time and effort and most transactions, certainly between your own accounts, happen "instantly". In many instances transactional data from your accounts can be downloaded in a number of different formats for analysis either using a spread sheet or perhaps importing into accounting software.

PayPal **PayPal** is an internet based money transfer business that enables online customers and retailers to buy and sell goods. PayPal has over 220 million users with accounts as of November 2010 and offers small businesses that are online the ability to accept payments electronically rather than via cheques, cash or other postal payments. Orders can be taken and funds secured almost instantly rather than asking the potential customer to post a cheque, which they often forget to do as they lose interest in the transaction when they leave a website.

PayPal acts as an intermediary during the online transaction so customers can make purchases without actually revealing their credit card details to the online retailer. This in turn can increase the levels of trust customers have in making online payments, especially with smaller businesses that do not have a well known brand or reputation.

PayPal works by allowing the customer to log in to their pre-configured PayPal account direct from the retailer's web site to make the payment, saving them from having to type in their payment or delivery details over again.

For the customer, use of PayPal is free as the retailer is billed for use of the facility. PayPal is not a bank, although its operations are licenced by a number of regulatory bodies. PayPal's European headquarters is based in Luxemburg and is subject to local banking regulations.
    Useful links & resources
    - Paypal – www.paypal.com
    - Credit card processing – www.nochex.com
    - List of European Banks

Traditionally for many small businesses **Staff Recruitment** has consisted of placing adverts in the local newspaper followed by a paper sift of any applications and a day spent interviewing candidates. This process takes time and effort and takes you away from your day to day work. Technological advances mean that there are now a number of resources available to employers to speed up the recruitment process.

Recruitment websites are now one of the more popular places for jobs to be advertised and the more popular sites can contain many thousands of job adverts. As an employer it is fairly straightforward to create an advert and get it hosted on such a site. The benefit is that your job advert is instantly available to anyone browsing the site across the world so your potential pool of candidates is huge.

Online networking tools such as LinkedIn as mentioned in this document can also be a great way to advertise and search for potential candidates.

If you would like to add a testing regime into your recruitment process a large number of options are now available for testing a candidate's suitability in terms of skills, psychometrics and other personal attributes.

Useful links & resources
- Eurojobs- www.eurojobs.com
- UK Based – www.jobsite.co.uk & www.monster.co.uk

Online **Project Management** provides many benefits for a business operating from more than one location. The successful management of projects has a direct effect on profitability. The established way of managing projects, using a single project plan, made life quite difficult for the project manager who had to communicate with each team member ensuring they were on schedule to deliver against their mile stones. This can place a large burden of responsibility on the project manager which then becomes a critical point in the project's delivery. By using an online project management system you can enable each team member to monitor their own progress against objectives and start to push some of the management responsibility down the management levels. As a small business owner this can result in less meetings or travel as you can control the project better from a central location – maybe your home office. If there are any changes to the project these can be reflected in the plan immediately so that all team members can see what the changes mean to their own schedules.

Useful links & resources
- Basecamp – www.basecamphq.com
- Wikipedia comparison page of several popular project management tools

Effective Time Management must be considered because starting up a business places huge demands on your time. The problem is there are so many jobs to do and so much planning to do that being organised in everything you do from the outset is vital. A good system to deal with tracking tasks and assigning time to them is vital.

Many seminars and workshops on time management are available but often at a relatively high cost. They may motivate you and give you tips but an IT solution will provide a practical tool at little cost and without taking valuable time out from your business. By effectively managing your time and tasks you will save money and time.

The PC based 'To Do' List is probably the most useful time management tool available, a simple 'to do' list of tasks and activities. There are a number of software products that run on a PC to help manage your 'to do' list and a number of them offer additional features such as online calendaring.

Others enable you to link to your favourite websites and data files using a Microsoft Explorer type interface. If you are already using Microsoft Outlook you will probably notice that it comes with a sophisticated task list that integrates into the Outlook email and calendaring applications.

Some more advanced 'to do' list management tools have some interesting checklist templates covering activities such as moving house, moving office or planning a wedding. Whilst these may not be business centric, you may undertake a process at work every few months when a checklist would be really useful if it can be saved from the last time you did the work. This would make a useful tool for passing the work onto someone else and monitoring their completed tasks.

Useful links & resources
- www.toodledo.com
- Microsoft Outlook

EQUIPMENT

Internet phones can save huge amounts of money. They utilise a system called Voice over IP (VoIP) which uses the internet to carry telephone calls.

Many large international companies have moved to VoIP as they see it as a way to save money on phone calls. By using the internet you can bypass conventional phone companies and enjoy much cheaper phone calls. To get VoIP, you will need to sign up with a service provider who will route your calls both within and outside the internet. The most popular service providers will use their own software program to provide VoIP. These services are extremely popular, but they are reliant on your computer.

If you run the service provider's program on your existing computer; it will provide an electronic phone-book, and will enable you to see when other users you know are available. Calls to users of the same system are usually free, and subscription costs free or low. You typically pay most for calls to the ordinary telephone system.

Because the program is free, it is quick and cheap to equip a whole business with the technology but you will need to have your computer on whenever you wish to make or receive a call – no problem if you normally have your computer on all day. This system requires a recent computer with at least a microphone, headset preferably or speakers at a push and an internet connection.
You will need to download the service provider's software client. This is usually free.
For the best experience and the best savings, a broadband internet connection is required.
Most users prefer to use a headset, because this improves the clarity of the sound and eliminates the 'echo' of the conversation that may be heard when a microphone is used in combination with speakers. The major features of this kind of service typically include:

- The ability to view whether your contacts are online.
- Text messaging and file exchange systems.
- The ability to quickly and freely set up teleconferences.
- Low or free subscription rates, and the ability to talk to other users free of charge.
- Some providers are currently offering or trialling video services.

NOTE: Calls to conventional telephones attracts charges, although usually considerably below those of normal providers, especially for international calls.

Useful links & resources
- Skype – www.skype.com

Open Source Software

There is unfortunately no universally accepted definition of the term "Open Source". Open source software is not freeware, but is actually licensed by individuals and companies on terms that allow the source code to be accessed, modified and re-distributed by licensees. The Open Source Initiative, a not-for-profit group, says that open source software should be offered on a free distribution basis and should give free and easy access to the source code of the application(s) concerned.

It's the licensing that sets open source applications apart from pay-for, shareware and freeware, since it allows third parties to modify and create derivative works from the original program, and also to offer them on an open source basis. And therein lies open source's great advantage and - ironically - its great disadvantage; anyone can modify and promote their own `souped up' version of an open source application, meaning that multiple editions of the same software can exist in the marketplace (if that is the right word) for such applications meaning that choosing an open source application can be more than a little confusing, with several sources offering different versions of the same application.

Open Source is good for mainstream products such as word processing software, but where more specialist software is concerned, changing requirements cannot easily be met by such packages. Many open source licenses do not have any warranties either as to title or as to quality, and often come with no indemnities and extensive exclusions of liability.

Useful links & resources
- Further definition and links on Wikipedia
- SourceForge - largest hosting service for open source projects
- Google Code - home of Google's open source projects.

MARKETING

There are many ways in which technology can be used to market your new business. The starting point for most conversations about marketing using the Internet now generally starts with social networking. Much emphasis and time is now being expended in to the newer forms of marketing using on-line communities found in social networks. The kings of which, for the time being at least, are undoubtedly Twitter and Facebook, as of November 2010 Facebook has approximately 564 million users and Twitter 180 million.

Some examples of business using these are Starbucks and McDonalds who both use Facebook to build brand loyalty, keep in touch with customers, send special offers and updates to, they have a 10m and 2.5 million user fan base respectively. Starbucks has the third biggest fan base on Facebook beaten only narrowly by Barack Obama (10.8m), Lady Gaga (12.9m) with Michael Jackson in first place at 16.6m followers. Other social networking sites of note are YouTube which hosts video and MySpace another social networking site.

The key benefit of social networking for businesses is generating loyalty and the ability to reach new markets without the overhead of printed material and expensive marketing campaigns. With the ever increasing availability of broadband, businesses can now have a direct line into the majority of homes and businesses, not only in the UK but around the world.

If you would like to find out more then the Conversation Prism is an online tool developed by its authors to give a whole view of the social media universe, categorized and also organized by how people use each network. A low resolution version which may be difficult to see in detail is included below.
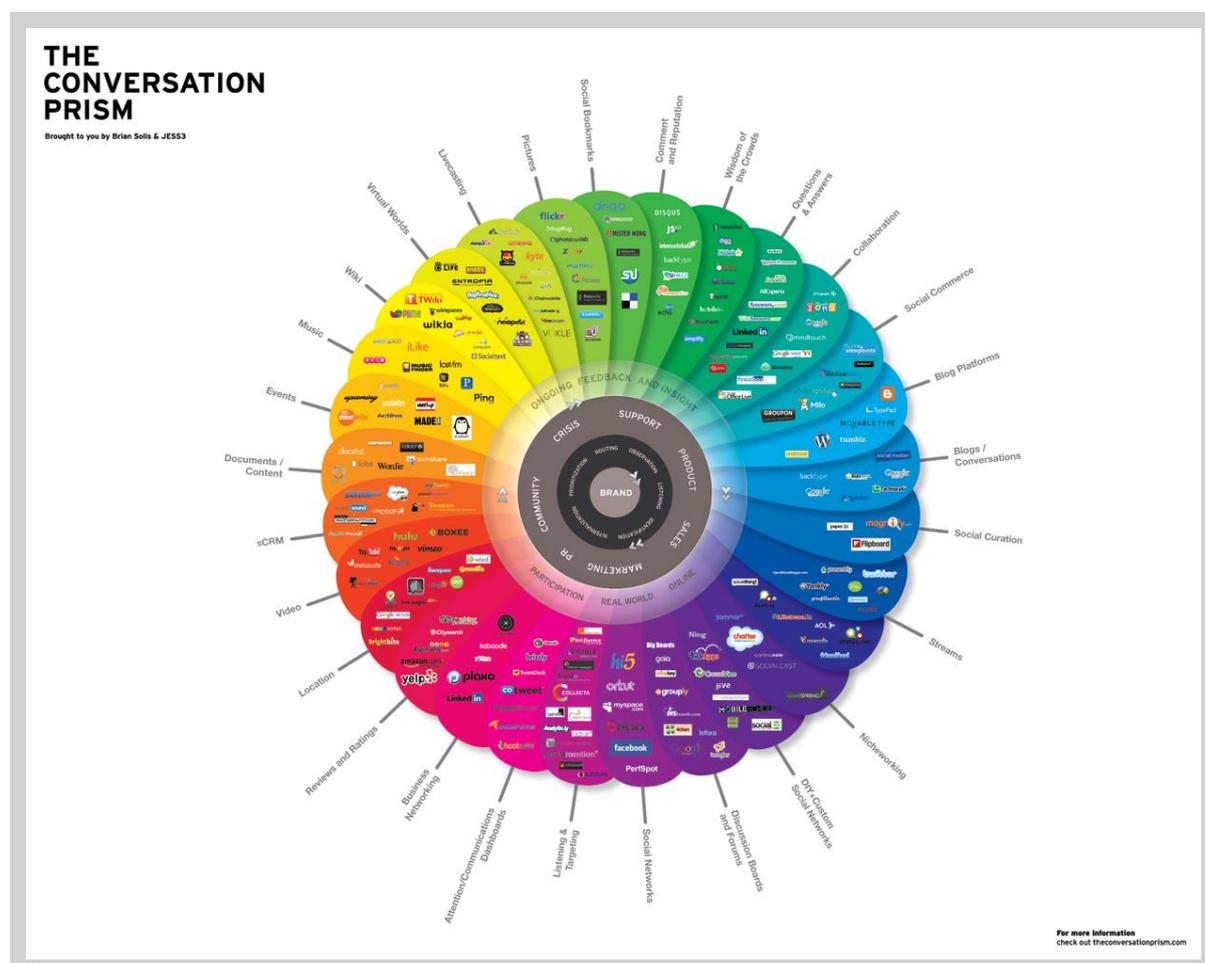
www.theconversationprism.com

Blogs is short for web logs, an online commentary or news item that is created by an individual "blogger". There are millions of blogs available to read in the "blogsphere" covering a huge range of mainstream and esoteric subjects. Blogging is believed to have started in the mid-1990s and was born out of various on-line diaries and journals kept by individuals, evolving to be used by people to promote ideas, arguments, products, services and news comment. Some blogs have attracted a huge and loyal following of readers, their success being measured by the number of times they are linked to in other blogs or web sites and through readers voting for them. Reading some popular blogs can help you to see how best to structure a blog including the use of pictures. There are other types of blog including the vBlog (video blog), photoblog (photographs) and podcasting which is an audio blog.

Blogs can be really useful marketing tools, particularly in very specialist business areas about which there are few or no blogs in existence. A successful blog needs to be updated on a regular basis –

daily at least. If you don't update your blog frequently then your blog will no longer be fresh and interesting and can quickly lose popularity. The cost to the business will be your time, but a well organised blog will also serve to document the early stages of your business.

Links
- Blogger
- Wordpress
- Technorati

Microblogging Twitter is by far the most popular of the 'microblogging' sites that have become prominent recently. Microblogs allow a user to update their status via short messages limited to 140 characters – roughly the same as a text message. Users that follow a company's updates are often customers, and so microblogging can be a useful way of communicating news of new products and services to them – or alerting followers to interesting industry news.

Twitter is an opt-in social network, so users must agree to receive a company's messages called 'tweets'. These can be received on mobile phones as well as PCs, enabling customers to be contacted even when they are out and about.

Twitter is especially useful for products that appeal to the connected 'Web 2.0' type of consumer, but it's always important to assess a company's current and potential customer base to ensure that Twitter is an appropriate business tool.

Forums are much more interactive than blogs. An on-line forum is a virtual meeting place for those interested in discussing certain topics or interests. Typically a forum is split down into subject groupings. A question or a comment will start a "thread" or topic of conversation. Other users may then contribute to this thread. Moderators check such comments to make sure that they do not break the rules of the forum, usually avoiding profanity or abusive comments. Users will often be required to register on the forum so that their identity can be traced if needs be, although many people post under nicknames with their real identity only known to the moderators.

A forum will definitely increase your profile and reputation if you use it correctly. By investing time and effort you may well see direct business return; you may not get immediate return but over time you should see some feedback as well as picking up tips and ideas.

Useful links & resources
- Yahoo Messages
- Google Groups

Selling online can be conducted through auction sites (such as eBay) or directly through your own website.

There is a large number of auction sites available, the best known being eBay. Other sites may be better placed to serve your requirements so it's best to research them, especially noting where your competitors are selling. Auction sites charge for listing items and usually charge a percentage of the sale price upon successful sale. Items are listed with a description and a photograph and key information disclosed such as whether the item is new or used, in good or poor condition etc. Keywords will also be entered to assist customers to find the items they want.

eBay can also be used for its marketplace feature, a service offered by other sellers such as Amazon. Also known as an "eshop", it is usually possible to see the "rating" of sellers to see that they are reliable before customers buy. There will be a monthly charge for your shop's presence in the marketplace.

Selling on your own website is a fairly labour free process but will require a large investment to offer payment processing so detailed business planning will be essential. There will be many decisions to make such as which payment methods to accept, to which countries you will be able to supply and who to choose to build the website. Once set up, business growth can be sizeable. Security and audit of payments is crucial and should things go wrong then your reputation is at severe risk. Should you decide that taking online payments is not for you, you can still use a website to advertise and sell products, but then take payments and arrange delivery over the phone with the possibility of using Paypal or other payment services as an alternative.

Customer Relationship Management

Managing relationships with new and existing customers, especially as a business grows and a number of people could deal with the same customer or when sales leads and new prospects are generated as part of a marketing campaign is critical. This is where Customer Relationship Management (CRM), sometimes referred to as sales force automation, comes into play. Implementing a CRM system you will help you make money by improving your sales process and save time as you will be able to focus your efforts more precisely. CRM systems can range from a simple spreadsheet through to very complex systems that link all stages of the sales, manufacturing and delivery processes. When you have outgrown the spreadsheet approach or need something more advanced your next step might be a hosted CRM application, this give many of the benefits of 'cloud computing' but can be expensive as it's often charged on a per user basis.

Useful CRM links & resources
- SalesForce.com hosted CRM system
- Google Docs (shared applications)
- ACT! from Sage
- Goldmine

Networking
sites can be very beneficial in promoting a business and forging links with other

businesses. For example LinkedIn ("Linked-in") was launched in 2003 and has more than 35 million users across 200 different industries. It is used to maintain a list of contacts, these being people they trust and by whom they are trusted. One of the key benefits of LinkedIn is that each member is responsible for keeping their own contact details up to date, which means that while people move between organisations and contact information changes you will always have the latest contact details for those you are connected to. Similar services are operated by Xing.com and naymz.com. For all of these services registration and basic usage is normally free with a range paid for optional services available for those users who wish to take advantage of them.

Useful links & resources
- LinkedIn
- www.xing.com

Designing your website and making it work harder

Designing a website can be a complicated and involved project that can draw upon a number of experienced technology and design professionals. Alternatively it is easy to put together a simple website using one of the many tools available. We won't try and tell you how to design a web site in this short guide to IT, but some people will decide to build their own website, others will employ a

designer to do this for them. While many guides will tell you the key components of a website are its content or its aesthetic features in reality you want a web site to first and foremost drive sales or at least sales enquiries. Visiting websites can help to get a feel for what makes a good, attractive website.

Web content - the words The open-ended nature of the web gives companies a new freedom to give more and more detailed information to their customers. While each page added to a brochure adds to the printing and distribution costs, there is no such limit on web pages.

The decision therefore changes from 'what to include' to 'where to stop'. You should understand your objectives from the website, and establish your content to meet those objectives. If you just intend your web page to be a place to direct prospective clients who want to find out more about your company, your content might reasonably fit into several pages. If you choose to add case-studies and press-releases it may run to twenty or thirty. If you wish to include a catalogue of your wares or a technical support database, it will be many dozens.

The website may well be the most important marketing tool for a company's products and services. But if it is never seen by customers, all of the time and effort that went into creating an effective website will be wasted. Driving website traffic – that is, visitors to the site – is the first step in any successful modern marketing campaign. Converting these visits into actions such as purchasing is the second challenge.

Website aesthetics The most common mistake first-time website developers make is to produce a visually crowded site. The symptoms of this include repetitive or dark backgrounds which make the text difficult to read, animations, particularly flashing ones which distract the eye from the copy, and colour selections which clash with each other and do not put the visitor at ease. As in content, less is often more.

This guide cannot teach you all about aesthetics, which is why it is important that you visit plenty of other websites and try to understand what works visually, and what doesn't. Try to select a visual style that is appropriate to your business and clientele. Finally try to design your visual style around your site structure, and make it easy to navigate and find information.

Apart from aesthetics and content the other key areas for careful consideration during the design process are; structure, usability and accessibility.

Search Engine Optimisation

To increase a website's traffic, ensuring it can be found by internet search engines such as Google is a clear starting point. The goal is to be listed on the first or second page of results returned after a keyword search. The higher up on the list the business is the more chance a customer has of finding the link to its website.

Increasing a website's visibility by boosting its search engine ranking is called Search Engine Optimisation (SEO). This has become a competitive industry in itself in recent years, as achieving a high position within the search engines is not entirely straightforward. In their efforts to ensure only the most valid of websites achieve the highest places, search engines using an ever-changing and sometimes complex set of criteria to rank them. This has led to an abundance of third party agencies appearing on the market, selling SEO packages designed to quickly increase search rankings. However, as no firm can guarantee success, remember to check the price and the legitimacy of any

company chosen for SEO purposes.

Developing keywords The success of a business's SEO strategy is entirely dependent on identifying the most relevant keywords potential customers would use to search for it. Examples might include "tax accountants Brighton", "financial services Sussex", "tax assessment", and so on.

While Google is the dominant player in the web search market with approximately 80% of all searches, Yahoo! and MSN also process many millions of searches daily, and the manner in which these alternative search engines rank pages is much different to Google. Businesses looking to experiment with SEO should ensure their site has a similarly high ranking across the range of search engines.

Useful links & resources
- SEO Tools

Web statistics can be recorded to reveal trends in use of your website. This data can then be used to improve everything about the way you do business on the internet. For example "Page Rank" is a Google feature which allows Google to analyse the relevance of content and prioritise its display. By using web analytics a business can discover:
- How many customers are using a particular website
- Which websites a customer has come from
- How effective a web page is at holding a customer
- Whether a visitor stays on the website and for how long
- If a customer buys anything from a particular website
- How effective online advertising has been attracting new customers
- If an email marketing campaign has generated the expected click-throughs

Google Analytics is a free, popular service which enables a website owner to track many different areas of their website's performance. Consisting of a small piece of code, the feature allows a business to run more than 80 different reports that cover every aspect of their website and the pages it contains. A Google account must be opened and then the small piece of code can be placed on every page that is to be tracked.