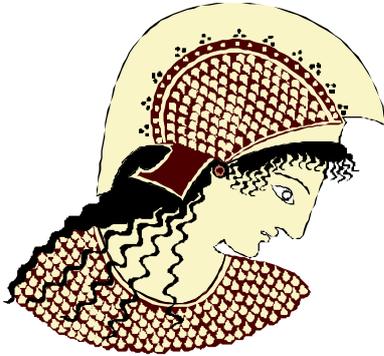# The Power of an Amazon

Amazon (æ· mz n).   n. Member of a race of female warriors alleged to exist in Scythia. Etymology doubtful, perhaps *a+mazos+on* = having no breast (ἴάœ ϋὸ) from removal of right breast to facilitate archery, but more likely from Old Persian *hamazan*, a warrior.

Let me take up a new Internet research strategy that is important to faculty and students. The context I want to explore is that of finding out what significant books there are in an area you are researching for the first time. Or perhaps you are coming back to it, or re-exploring it in depth.

Yes, I know that you expect this article to be about the Internet, but paper-based books are probably going to stay an important information resource for about another ten years. And even when paper gets superseded there probably will still be objects with many of the properties of books.

How do you start?

Traditionally, you go to your library or your computer and do a library catalog search. Then you track down the books on the shelves and have a look at them. You borrow the ones that look interesting. If you are really clued up you do this in more than one library (for example the libraries of all the universities within reach and your state reference library).

So what do you get? Probably rather spotty results that depend on the collection policies of the library concerned, which may or may not be interested in the topic you have in mind, and may or may not be up to date, and may or may not have enough money. Except in rare cases, no library can afford to buy more than a tiny fraction of the book production titles in any field. Your search in today's world of exploding publishing is already on the back foot.

Another approach is to scan publisher catalogs or book flyers, in paper or on the Net. You get more up to date information (perhaps) but you are at the mercy of the publisher's glowing description of the book. And you have to look at so many books and so many catalogs. You are always worried about what you might have missed.

So, maybe you give up and ask a librarian. Now you are getting closer. The librarian will be able to search though the entire body of titles in print, and give you lists of books, their publication dates, cataloguing data, and so on. But still you wonder, which of these are worth buying? They are not in your library to inspect, nor probably in your local bookshop.

Okay. How do I do better?

Easy. You use the resources of the Internet and the power of the global economy. You get an Amazon to do your work for you. I mean the real Amazon.com, not a mythical warrior.

Amazon.com is an Internet bookseller to be found in virtual space at www.amazon.com. You register as a potential customer and order books by clicking on options on Web pages. It bills your credit card and sends them to you from warehouses and shipping centers in the USA and Europe. It does not operate any real bookshops with shelves and coffee-machines. Simple concept. The consequences are enormous.

Since Amazon.com sells globally and because Americans want books from everywhere, their databases hold descriptions of just about every book in print, and many that aren't. So notch up *Advantage No 1*: you now have free online access to the world's booklist without an intermediary.

Advantage No 2: Amazon.com can't provide you with a friendly bookseller's assistant to chat with you and advise you, so it provides a good range of automated value-added services to encourage you to have confidence in your purchases.

For example, once you register, an artificial intelligence system monitors your purchases and tries to guess what other books might interest you. This

process looks at your buying pattern and the subject areas in which you have purchased. It also tries to match your profile up against other purchasers so as to refine its strategy. (All this is strictly confidential in line with their policy.)

When next you log in, Amazon.com offers you some titles to consider, chosen by its analysis system. The theory is that the more you buy, the better the selections should get. It works well with people with classifiable interests, but if you are an eclectic reader and purchaser it really can't do very well. Neither can a human bookshop assistant.

The site also provides a clickable link for 'similar books' against every title. Also, it will tell you that 'readers who purchased this book also purchased works by the following authors' and give a list. You can choose to pursue or ignore these links.

As a purchaser, you can provide a review of the book to go on file if you want, and the reviews provided by previous purchasers can be inspected by you before you buy. Reviewers get to give the book a score on a 5-point scale, so you can also view the book's average five-star rating. Naturally, you need to be cautious: if there is only one review it might be from the author's spouse (possible result: ★★★★★), or from someone with a headache (possible result: none). So add review data as *Advantage No 3*.

By the way you can also indicate whether you find a review helpful or not. The meta-review statistics are also displayed for you, so not only can you see what some people thought about a book, you can look at a snap poll of what other people thought about the validity of the reviews.

Ranking

However, the most significant data you can access is the power of the pocket. Amazon.com provides you with the selling rank of any book you are contemplating. For example you can be pretty sure that any book which ranks 523rd in their sales is very popular, and a lot of people have parted with their money to buy it. So either the publicists have done a superb job, or the book is a really good one. You can choose which you think applies from the other information you have. On the other hand, a book which ranks 262144th in sales may be very specialized, out of date, badly written, out of print or from an obscure publishing house.

While absolute data like this may be very useful, comparing the ratings of two or more books may be even more valuable, especially if the topic is not likely to be a best seller. Of course it is still up to you to distinguish between the effects of publicity and value.

The beauty of this data is that it is very hard to distort. To affect the rankings significantly many people have to spend a lot of money.

Of course, there are other global Internet booksellers. For an alternative viewpoint, try the *Barnes & Noble* chain. Barnes & Noble operate an extensive chain of real bookstores in the USA and a well-established mail order catalogue as well as their Internet business, so expect a slightly different orientation but very similar opportunities to derive research data from their site. See if you agree with me that in Barnes & Noble the balance between literary evaluation and customer evaluation is tipped more to the literary side.

For example you will find a specific rare, second-hand and out-of-print books section, longer and possibly more comprehensive book reviews including some from traditional critics, and a second-hand college textbook section (probably not useful outside the USA). There are other features that differentiate it from Amazon.com, even if at first sight the two sites look very similar.

These two sites are amongst the best e-commerce locations on the entire Web, and are interesting for that reason alone. Perhaps that is worth another aside to enhance your appreciation of Web sites.

Internet Excellence

Why are these some of the best e-commerce sites on the Web? Let me use Amazon.com as my example for analysis.

- The pages load really fast, but anyone sensible does that. There aren't any unnecessary images, which helps.

- The *splash* page (the first one) and most of the others are chock-a-block full of content, much of it interesting. Each content item tempts you to go a little bit further.

- The pages it delivers are interactive, meaning that it automatically knows who you are (once you have registered as a customer) and adapts the pages accordingly. It does this through a cookie stored on your computer, so the technique does not work so well from computer labs where you have to log on to be recognized.

- Selecting things that you are interested in is made as simple as possible. You just click on an icon to add the item to your virtual shopping trolley. You can take things out too.

- Buying is also made as simple as psychologically possible. If you are a previous customer, your shipping preferences and card details are already stored, and you can buy with

one click. No lengthy form filling here, nor getting up from the computer to fetch your wallet.

- There is a well-understood paradigm running through the site: that of a real shop and especially a bookshop or music store. This paradigm shapes the site and enables users to understand what they are doing in it.

These are all straightforward techniques meant to give you a good experience when you visit, though it is surprising how often Web sites forget them. They are relevant to practically every site, because they are all 'selling' something. Universities, of course, are actually in the business of selling educational and research services, and look at most of their web sites! But that is another article.

Like all commercial sites, Amazon.com has to actually deliver the goods. When you try to order a book Amazon.com gives you an estimate of how long it will take to ship. When you get to the virtual checkout you can find out how long the book or books will take in transit by your selected shipping method. Not all books in the world are held in their warehouses, of course.

Once registered, your shipping address and details are remembered. You get asked if you want the books shipped as they become available, or whether the immediately available ones should be held up to be sent in a batch with the others. You receive an advisory email when anything ships out of Amazon.com. If there is a delay, you get told, again by email. They are reliable and usually beat their delivery estimates. For example a recent order of mine shipped on August 12 (USA time), arriving on August 23 (Tasmanian time). All of this makes you feel a valued customer.

The company is ploughing revenue into growing its business at a startling rate. Starting off with books and music CDs, Amazon.com has branched out into software, electrical and electronic goods, toys, garden tools, furniture, and hosts a virtual shopping mall in which reside other independent e-commerce shops. It aims to become the primary e-shop on the Net especially for USA customers.

Fish food / Berley

I have left one of the best features of this site to last. It offers a lot of *fish food*. Australians would recognize this Internet term as *berley*.

Fish food consists of free giveaway items on the web site tempting you to visit and revisit. They may be snippets of information that change regularly (current news items for example), samples of new music in MP3 format, online games you can play, documents or software that you can download, advice or suggestions, free e-cards you can send for birth-days, opportunities for you to add your views to the site in reviews, guestbooks or chat rooms, and all the

data I am encouraging you to look at for research reasons.

Fish food must be fresh; in other words it must change regularly, and each repeat visit should have something valuable to take away.
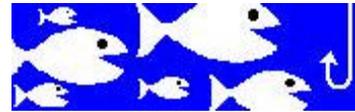
Fish food is expensive to produce, but it is worth it to the e-vendor to get people revisiting the e-shop. That is why you can get useful free information without buying a book. They hope you might one day. If getting something for free worries you, do one or both of the following things: buy a book as an experiment, or provide the vendor with a carefully written review to add to their collection. At present Amazon.com are featuring their top reviewers—providing more fish food and also thanking the reviewers.

Exploration and discovery

Allocate some time to have a serious look at Amazon.com and Barnes & Noble as important Internet research resources. Half an hour would probably be enough to evaluate them. Here are three ideas to try if you don't have an immediate need.

1 Let me tell you about an interesting book that I recently read titled *At the Water's Edge* by Carl Zimmer. It is a popular science book relating how tetrapods (reptiles, dino-saurs, mammals, etc) evolved to emerge from the sea and how the whales went back to it. Open up your browser, go to Amazon.com, and find the book description using the title or the author's name. Read the reviews and look at the ratings and ranking. Find similar books. Explore. Enjoy. Visit Barnes & Noble too.

2 Perhaps you want something a bit more academic. OK. Imagine that you are looking for a textbook or books for the new course you are designing about the Australian Prime Ministers (substitute USA Presidents or your own country equivalent if you want). See what you can find, how popular the books are, if they are in print, and how current the data is.

3 Here's one for students. You've got this assignment or research project that requires you to learn something about a software package called Excel, produced by Microsoft. Your local bookstore has dozens of books on the subject and you don't know which one to buy. Go get some independent advice.

Summary

Head for one of your friendly Internet booksellers across the Web and get some reliable data for absolutely free, when next you have one of the following problems:

- you have an idea for writing a book but are not sure what the competition is

- you want to prescribe a good textbook for a course you are teaching

- you want the ISBN data to get the library to buy a book you heard about

- you are starting research into a new area you don't know very well

- you are trying to stock up the university library or your own in a particular area

- you want to learn about some new technology (be it genetically modified food, the Internet, environmental engineering, whatever)

Binary Multiples

At various times I am sure that you have heard people talking about kilobytes, megabytes and gigabytes (kB, MB, and GB). But you may have discovered that a thousand does not mean 1000 in the digital world. A 64kB cache memory is in fact 65536 bytes in size, not 64000. The trouble is that $2^{10} = 1024$, only 2.4% over 1000, and computer engineers and salespersons have got into the habit of ignoring the difference. A download of 4MB might be 4 million bytes, or it might be 4 194 304 bytes.

This nasty discrepancy has always worried the scientists and engineers in charge of ensuring that our measurements are accurate. How could *k* mean 1000 in some places and 1024 elsewhere? Well, they have come up with a solution, which you may encounter soon.

From December 1998, the metric multiples *kilo-*, *mega-* and *giga-* (k, M and G) have been strictly reserved for the multiples of 10^3. If binary multiples are intended, then the prefixes are *kibi-*, *mebi-* and *gibi-*. These are abbreviated by ki, Mi and Gi for 2^{10}, 2^{20} and 2^{30}. Thus the cache I referred to earlier should really be written as having 64 kiB, or ~65.5 kB.

If you say them fairly fast a *Mebibyte* sounds quite similar to a *Megabyte*, so verbal communication should not be impaired, though written document-ation will be more precise.

It is too early to know how this will be adopted in practice, but for better or worse it is the inter-national standard. For more information, see http://physics.nist.gov/cuu/Units/binary.html and http://www.unc.edu/~rowlett/units/prefixes.html.

The Title

I've been asked by several people what the title of this e-journal means. Here goes.

The topics I write about range over the entire spectrum of the digital world. They are not confined to information technology as normally understood, and include the Internet, PC usage, digital telephony, wireless communication, Web site design and use, software packages, satellites, e-books, games, etc. That's where the 'digital' comes from: it is as general as I could be.

'Trekking' suggests the type of experience you can expect. I will take you someplace exotic where you might not have thought to wander without assistance, relatively safely, and give you an experience that you might otherwise have missed. I aim to have most of my clients leave satisfied that they have learnt something from each issue, many will have taken some action as a result of reading the journal, and some will have saved some money or become more efficient. Well, that's my customer satisfaction target.

Editorial

The policy of this publication is to provide professional and relevant advice on operating in the digital world to the teaching, learning and research members of a university, college or senior school. In other words to academics and teachers, their support staff, students and scholars. It also aims to be practical and selective, recognizing the time and work pressure on students and staff of universities, colleges and schools.

Starting from the next issue, *Digital Trekking* is going commercial, and will be delivered to institutional subscribers globally for redistribution to their members.

Digital Trekking will be published six times per year. Subscribing institutions may place it on the local intranet, republish in paper, incorporate into their house magazine, or a combination of these. Each issue is designed to be capable of being printed on a single A3 sheet of paper, making a bifold A4 newsheet for easy paper filing. The issues will also be available electronically for filing that way. Each issue has a lead article, and usually has subsidiary tips or advice.

Suggestions for topics or comments are welcome, addressed to me at ahjs@ozemail.com.au.