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**An Update on Life Insurance
Company Web Sites
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An Update on Life Insurance Company Web Sites

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1. Introduction

Farmer (1999) investigated the useability of the web sites of Australian life insurance companies and, as part of that process, summarised the uses life insurance companies were making of their web sites.

More recently, Farmer (2003) summarised the features of term insurance products being sold in the Australian life insurance market at 31 August 2003. The data gathering process for that investigation included visits to the web sites of many life insurance companies and friendly societies. That process afforded some insights into how the industry's use of the world wide web has changed since 1999. This paper briefly summarises those findings.

It is stressed that this paper does not provide a thorough review of useability issues or of all aspects of insurers' use of the web. Rather, it is only reporting on particular web issues which were noticed in passing while carrying out research which was not primarily concentrating on the internet.

2. Degree of web presence

Farmer (2003) noted that while there were 40 distinct registered life insurance companies at 10 July 2003, there were only 25 distinct life insurance groups open to new business. All except two of these groups have web sites where it is possible to learn at least some basic level of detail about the products they sell. The two exceptions were companies which did not sell direct to the public and thus arguably had no need for a web site.

3. Company grouping

Often life insurance companies are part of a larger financial group. In these cases there is usually a single web site for the whole group and product information tends to be grouped by type of product rather than by the company within the group offering the product. From the point of view useability, this is as it should be. The customer searching for a suitable long term savings product should find all such products grouped together. They should not have to realise that three different products could be offered by the life insurance subsidiary, the unit trust subsidiary and the bank subsidiary and locate the products in three different sections of the web site.

On this issue, it is interesting to note that a few web sites have grouped term life insurance and disability income insurance with such products as home insurance and car insurance. This may at first sound odd to actuaries, since we are aware of significant differences between the former life insurance products and the latter general insurance products. However, many of the differences of importance to actuaries can be irrelevant to customers. The designers of these web sites have presumably done the marketing research and have found that customers view all these products as simply different types of insurance.

4. Web availability of CIBs

Farmer (1999) identified only one company which allowed customers to download the full Customer Information Brochures (CIB) from its web site.

Farmer (2003) reported on 17 term life insurance products from 14 different insurers. For 9 of the 17 products the CIBs could be downloaded in pdf format from the insurer's web site. In the cases where an insurer offered two different products, they adopted a consistent approach for both products, so perhaps it is more informative to note that 7 of the 14 insurers made their term insurance CIBs available on their web site. That is, since 1999 there has been a drastic increase in the availability of CIBs on the web.

5. Useability issues with downloaded CIBs

Unfortunately, many of the downloaded CIBs had poor useability, so in most cases, for the purposes of carrying out the research reported in Farmer (2003) I still contacted insurers to obtain the glossy paper version on the CIB.

The remainder of this section describes the useability difficulties with downloaded CIBs. Most of these difficulties arise from a single factor: most users prefer to print out the CIB rather than read it on screen.

More information on the general tendency to print pdf files can be found in Nielsen (1996), but the major reasons for it can be summarised as follows.

1. Given the relative resolutions of the typical computer monitor and the typical printed page, it is much easier to read the printed page than the monitor. Most users are not prepared to read complex lengthy documents on a monitor.
2. Most of the pdf files contain A4 size pages. Most users' monitors are not large enough to display a whole A4 page legibly so they are forced to display less than the whole page and have to scroll within the page. Instead, they find it easier to print the document.
3. When reading complex documents such as CIBs, users may want to flip to earlier sections to remind themselves of some details. They seem to find this easier with the paper version.
4. Users may also may want to write their own annotations on the document, which they find easier with the paper version. (Users with the full licensed version of the Adobe Acrobat rather than just the free pdf reader may hold different opinions on this last issue.)

Where insurers have placed their CIBs on their web site in pdf format, the file appears to be an exact copy of the glossy version of the CIB. That is, no attempt has been made to alter the format to one more suitable for the user who is likely to want to print it out. This approach is certainly simpler for the insurer, since it avoids having to maintain two distinct versions of the CIB: the glossy brochure version and the pdf version. However, it does give rise to the following useability problems.

1. Excessive toner or ink usage

The advertising material on a laser printer toner cartridge or an inkjet printer ink cartridge will often indicate how many pages the cartridge is expected to be able to print. Somewhere the small print will probably add a comment like "assuming 5% coverage". This figure reflects that, when printing a typical page of text, the text only covers about 5% of the page. Alternatively, if the pdf file contains sections which are white text on a black background, the

printer has to print on 95% of the page. This uses up toner or ink at almost 20 times the normal rate and does not impress the customer paying for the materials, who may instead give up on the pdf version and phone the insurer to obtain the glossy paper version of the CIB.

Actually, it was fairly rare for the CIB pdf files to contain white text on a black background, but it was quite common to find sections in either black or white text on a colour background. The colour background would become some shade of grey when printed on a black and white printer. This still uses toner or ink at an alarming rate, the level of alarm increasing monotonically with the darkness of the grey. It was also common to find blank pages dividing sections which were entirely in a non-white colour or to find solid bands of colour appearing as borders on every page in a CIB. Even if such a band only covers 5% of the page that still significantly increases toner usage with no apparent benefit to the customer. “Watermarks” showing on every page also increase toner usage.

Ideally, a pdf file optimised for printing is entirely black text on a white background.

2. Assuming colour printing

Most home users will not have access to colour printing, and many of those who do are still mindful that colour printing is far more expensive than black and white printing. A colour pdf file will often be printed in black and white.

Many CIBs make good use of colour to improve the clarity of diagrams. In some cases, such diagrams become unreadable in black and white. Contrasting colours may no longer be easily distinguishable and pale colours may be entirely washed out.

3. Icky covers

The CIB’s covers will usually contain colourful images and the non-image parts of the page are probably some colour other than white. In short, when printed on a black and white printer, most of the page area is printed in some shade of grey. The toner used in laser printers is remarkably effective when printing black text on a white background and only covering 5% of the page. However, when it is printed on an entire page it produces a gritty texture for which I do not know the technical name, but which many people describe as “icky”.

When marketing staff talk about the feel of a product, they are not always speaking figuratively. There is a reason why CIBs have glossy covers. There is a reason for trying to ensure the printed version of a pdf CIB does not have an icky cover.

4. Non-A4 page sizes

Happily, almost all pdf files used standard A4 size pages and thus would print easily on a typical home printer. There were a few exceptions.

A few very simple term insurance products had very short CIBs in a booklet much smaller than A4. In one case the resulting pdf file also had very small pages, so printing it on A4 paper produced a small printed area in the centre of each A4 page. Paper being much cheaper than ink, this is not usually a major problem, though perhaps some small proportion of potential customers may be upset by the waste of paper. Another insurer adopting this small booklet form did manage to provide the pdf file in A4 size with 3 of the small booklet pages fitting neatly onto each A4 page.

At the other extreme, one pdf file had pages measuring 15.58 by 12.17 inches. Shrinking this to A4 size produces very small text and printing it full size spreads each page over 4 pages, with page breaks inconveniently falling vertically through columns of text. Another CIB managed to merge each pair of facing A4 pages from its paper CIB into a single page

measuring 14.39 by 10.18 inches in its pdf file. Unfortunately this merging also involved some shrinking, so unless the user is willing to re-enlarge the page size correctly, attempting to print it doesn't give the original two A4 pages nicely separated, but instead puts the page break partway through a column of text. The alternative of shrinking it down to a single A4 size page produces unreasonably small text.

When providing pdf files to an audience that includes novices, keep it simple. Keep the pages A4 size or smaller.

5. Missing page numbers

One pdf format CIB failed to include page numbers, an apparent breach of the disclosure requirements. I was unable to obtain a copy of the paper version of this CIB to see whether the problem also occurred there.

Two other CIBs placed their page numbers very close to the bottom of the page. Presumably this was not a problem for the professional printing machine used to produce the glossy paper version of the CIB. However, most laser printers cannot print very close to the edge of the page and in the pdf versions of these CIBs the page numbers were outside the printable range of the typical laser printer. The most likely outcome here is that the page numbers simply do not appear on the output, and depending on the printer and platform used, the user may receive a warning that part of the document was outside the printable area. It is however hard to predict the outcome with certainty. If the relevant software was defaulting to "print-to-fit" mode, the page may be shrunk enough to allow the page numbers to be printed, at the cost of reduced text clarity resulting from the interpolations inherent in the shrinking process. Neither outcome is desirable.

There was also one odd case where a pdf file ended with two numbered but otherwise blank pages, leaving this user wondering whether two pages of important material had been lost in the conversion to pdf format.

6. Unattached attachments

A few insurers presented their pdf format CIB as two separate pdf files, one containing the information part and the other containing the application form. The reason for this is unclear. Perhaps it was an artefact of the creative process, the two sections of the CIB having been created by different teams resulting in two separate documents in separate files.

This practice created a few anomalies in the text. For example the CIB might refer to the "attached application form," which was not actually attached but instead was in a separate file. Such issues probably cause little difficulty at this time, since most users still think of a pdf file as a proxy for the real paper version of the CIB and will make the appropriate translations. More care may be needed in future as we encounter generations of customers whose mental model is that the pdf file is the real and only version.

6. Online application

Many businesses allow customers to make their purchases online. AMP allows customers to place their application for term insurance online.

Customers using this option still complete a shorter application form from the CIB and that form contains all the necessary signatures, but the bulk of the application is completed on the web. Presumably this method can be used either by the applicant working alone, or by an agent interacting face-to-face with the applicant and entering the details as they discuss them.

In describing the move from a totally paper-based application form to a web-based application process, we have missed an important intermediate step, though in practice the step seems to have been seldom used in life insurance. This is the step where the input process is computerised but the internet is not used. For example, intermediaries such as an agents may be equipped with laptop computer, the application form existing as a program on that computer. The customer and agent complete the application on the computer. A printout can be provided for the customer and the data in application can be sent to the insurer perhaps on a floppy disk.

I am mentioning this intermediate step so that we can clearly distinguish between the advantages arising from computerising a paper-based data entry process and the advantages arising from moving a computerised data entry process to the internet. If the distinction is not clearly made, there is a tendency to forget the former and correspondingly overestimate the importance of the latter. These issues are discussed in most introductory texts on information processing and are mentioned here briefly in the context on the life insurance application process.

Computerising the application form eliminates the step of coding data from a hand-written application into the insurer's computer system. This gives immediate time savings. It also removes the major source of transcription errors and the problems associated with decoding illegible handwriting on the application form.

It also greatly reduces the error rates in form completion. As data entry staff will attest, a significant proportion of life insurance applications forms are incomplete, even where they have been vetted by agents. In particular, where a term insurance policy includes options or where the application form allows for both superannuation and ordinary policies, there will be many sections of the application form that do not apply to all applicants. No matter how clearly the instructions are written, the error rates rise significantly as soon as applicants have to make decisions about which sections to complete and which to leave blank.

When the application form is computer based, the applicant only ever encounters the relevant parts of the application form. For example, if on an early screen they indicate that the only option they want is TPD cover, then later they will be shown a screen asking for details about the TPD cover they require, but they will never be shown the screen about trauma cover details. If they indicate they want an ordinary policy then they will subsequently be presented with a screen asking them to nominate policy owner(s), whereas if they had requested a superannuation policy they may instead be reminded which trustee company will be the policy owner. Also, they will not be allowed to progress until necessary questions have been answered, so incomplete forms should not occur.

In the computerised application form, some error checking can be performed immediately and unreasonable answers queried. For example, fields asking for the insured life's height and mass – usually incorrectly described as weight – could be programmed to only accept numerical values and clearly unreasonable values could be queried immediately.

By contrast, the advantages of moving from a computerised application process to a computerised *web-based* application process can be dealt with far more briefly. They allow the customer to carry out the data entry themselves at a time of their choosing. They do not, for example, have to arrange an appointment with an agent or broker to access the application program on that person's computer, only to find that they didn't bring all the information they required and thus have to make a second appointment. With an internet application, if the customer finds they do not readily have all the necessary information, they should be able to save the partially completed application and return to it later. The internet application also allows the data to travel directly from the customer to the insurer's head office computers,

eliminating the risk of data loss at intermediate steps, for example due to a malfunction on an agent's laptop computer.

There is nothing new about the advantages described above. They are well-known and have been experienced by online retailers for many years. The fact that they are not employed more widely in the life insurance industry suggests that there is some special feature of life insurance that causes offsetting disadvantages. With regard to internet applications, the most likely reason is that most customers find the products sufficiently complex that they do not want to complete the application by themselves on the internet without the assistance of an agent.

7. Amusing useability issues

Farmer (1999) noted the tradition for papers and articles on web site useability to include some amusing or frightening examples of poor useability, and did not depart from that tradition. (Depending on whether one prefers a formal or sensational tone, these examples may be labelled "Case Studies" or "Blunders".)

Readers employed by insurance companies will be pleased to hear that only one severe web useability issue was encountered in the current investigation.

An insurer had provided an online form which could be used to request information about products. The customer could enter a postal address for sending information. The fields for the postcode and state were only two characters wide. (A note for overseas readers: In Australia postcodes are 4 digits and state abbreviations are 3 letters.) The customer could enter the full data in the fields, but the first characters would scroll out of sight as the latter characters were entered.

The form allowed the customer to indicate whether they wanted to be contacted by phone or have information mailed to them. There was also a field to enter a phone number. The form would not be accepted if the phone number field was left empty, even where the customer had not requested that the insurer contact them by phone. Luckily the form had also not bothered to test whether all field inputs were reasonable, so it was possible to simply enter blanks in the phone number field and the form would then be accepted.

I ticked the boxes to request information about term insurance be mailed to me. When I submitted the form I received a feedback page which promised that a "Loan Specialist" would phone me soon. It appeared that the program behind this form was not correctly detecting which boxes had been ticked. Perhaps not surprisingly, the information requested was not received.

The form no longer appears on the insurer's web site and the insurer has reverted to providing phone numbers on which CIBs may be requested.

8. Bibliography

Farmer, Jim. 1999. 'Content and Useability of Australian Life Insurance Companies' Web Sites' *Australian Actuarial Journal*, Volume 5(3), p491-513.

Farmer, Jim. 2003. 'Term Insurance in Australia', Research Paper No. 2003/03, Department of Actuarial Studies Research Paper Series, Macquarie University

Nielsen, Jacob. 1996. 'In Defense of Print': <http://www.useit.com/alertbox/9602.html>