Teaching Computer Design – Graphical Industry Collaboration

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Abstract

This paper describes consultative research done in Hawkes Bay in September 2007 to determine how design businesses – including Graphic design companies, TV and Video Production Companies and others implement their computer operations. The aim of the research was to determine whether there is a set standard for the hardware and software used by these design companies. Sixteen different companies were approached either telephonically or by conducting personal interviews to obtain their views. All the businesses where asked a standard set of questions. The results obtained from this research exercise included the conclusion that that the Apple Mac platforms in the local Napier design industry is still a better option for serious design work; that companies are opting to use the Adobe Creative Suite 3 to do graphical design work and that students need to be prepared for the fast paced industry.

Keywords: Computer design education, Apple Macintosh Computers, IBM-compatible computer, design software.

1   Introduction

In the 1980s through to early 2000s, all graphical designers and printing industry people agreed that Apple Mac Computers where the only choice when choosing computers for this industry. This statement is however no longer true. The software that was required in these industries where developed for Apple Mac Computers specifically and could only run on these computers. Normal Microsoft PCs were just not an option (Anon, 2008a).

This statement is however no longer valid. These days there are many different types of computers using different types of operating systems and using different software packages and all being used in the graphical design industry. Selecting the right environment mix can be a major problem, especially in the graphical design environment.

Starting with the hardware requirements there are two main types of computers that can be used in the design environment. The first option is the Personal Computer (PC) which refers to any *IBM-compatible* computer. A computer is IBM-compatible if its architecture is based on the IBM microprocessor. Most PCs use Microsoft Windows as operating system, but others use the UNIX variants, such as Linux, FreeBSD and Solaris (Anon, 2008b; Raskin, 1997).

The second computer option is the Apple Macintosh Computer (Apple Mac) which refers to any computer produced by the Apple Computer Company.

Macs are traditionally classified separately from PCs because they are based on the PowerPC architecture from Apple/IBM/Motorola instead of the traditional Intel based microprocessors that have powered PCs for decades. A great deal of software is compatible with either Mac or PC, but not both (Anon, 2008b; Dvorak, 2007; Hoddie, 2000; Raskin, 1997).

Not too long ago Apple Macs were the immediate choice for any professional graphic designer or pre-press studio. In today's environment this statement is not necessarily true and the Mac Vs PC argument is not so clear cut (Anon, 2008a). Apple redesigned their operating system based on UNIX in 2000, and more software packages and file formats have become interoperable between PCs and Macs every day (Anon, 2008a, 2008b).

In 2006, the Apple Company announced at its Worldwide Developer Conference that it was switching to Intel architecture for their computer systems. It is now possible to run Microsoft Windows on Mac hardware. Up until this point Apple hardware only supported the Macintosh Operating System (Mac OS), and Mac OS itself was not compatible with any other hardware besides Apple's (Anon, 2006, Anon 2008b).

Though the trend is to make PCs and Macs compatible, and their architectures are starting to be very similar, they are still not completely compatible. Many software vendors provide products for both platforms (Anon, 2008b).

This paper is not about the age old discussion of which is better Apple Mac or PC – this paper is about determining

what the graphical design industry is actually using in our local area.

The research presented in this paper became necessary when the Faculty of Visual Arts and Design at the Eastern Institute of Technology wanted to upgrade its design labs and some important questions arose. This paper investigates the answers to the questions. The questions range from "What type of computers is being used in Design companies in the Hawkes Bay area?" to "Which software packages are predominantly used in these companies?" The answers obtained from this consultation process will help to indicate to the Polytechnic what should be used and taught in the classroom.

Lastly the study aimed to capture the view of what industry believes the skill set of Polytechnic students should be in order to be "work ready".

The methodology followed is discussed in the next section, followed by a presentation of the results obtained from the research. This paper concludes with a brief discussion on the results achieved from this study.

Methodology used for the research

Consultation with industry was undertaken across a range of Hawke's Bay industries. The research team visited several workplaces and gathered information from others telephonically, with the help of the Eastern Institute of Technology's Business Relationship Unit. The aim of this research was to establish what hardware and software was currently being used in these industries where EIT graduates would most likely be employed, and to establish if the Visual Art Design and Video and Electronic Media programmes were catering to the Information Technology requirements of those industries.
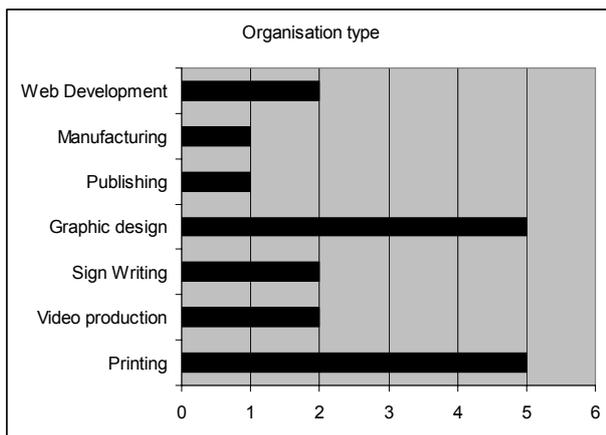

Figure 1: Companies surveyed by organisation type

In all, information was gathered from 16 Hawke's Bay companies. These companies ranged from newspaper Publishers Hawke's Bay Today, several advertising agencies, print companies, signwriters, design and manufacturing company Future Products Group, Television broadcaster Channel 51, and independent

television and video production house Simon Nixon Productions.

A summary of the main results collated from this research can be found in Table 1: PC/Mac Research Data.

Figure 1: Companies surveyed by organisation type provides some insight to the type of companies that were surveyed.

In order to use a short questionnaire that could be processes quickly only seven questions were asked. These consultation questions were:

- What platform do you currently use? (Mac or PC/Windows)
- What platform do you think you will be using in the next 3 years? Five years?
- What software do you currently use?
- Which of that software do you predominantly use?
- Are you planning to change any of the software you use?
- If you receive files from clients what format are they generally in?
- What software would you expect an EIT graduate or a potential employee to be familiar with?

The next section provides some analysis of the answers received from this research.

Results obtained from consultation

As seen in the previous section the first question asked from the respondents were which platforms they use in their graphical design or similar company. The results obtained on this question can be seen in Figure 2: Platforms used. The results indicated that 47% of the companies surveyed use the MAC platform, 41% of the companies surveyed use the PC/Windows platform and 12% of the companies surveyed use both platforms.
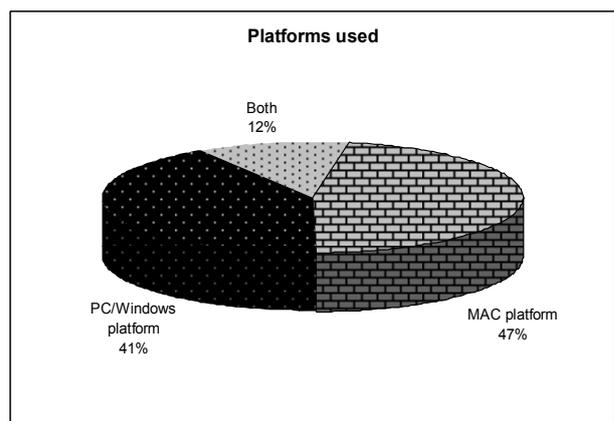

Figure 2: Platforms used

Companies in printing, newspaper editing and signage seems to be using PC/Windows based platforms while video production companies, the larger print companies, graphical design companies and advertising companies seem to be using Apple Mac computers. The conclusion seems to be for design purposes it is still good to use MAC environments. Most people have basic PC based

skills, but it will be good if the students studying Visual Art and Design courses know the MAC environment as well.

The respondents' answers to the second question: "What platform do you think you will be using in the next 3 years? Five years?" were similar to the answers on the first question above. They did not indicate that there will be any major changes from what they are currently using to what they expect to use in the future.

The next two questions asked were:

- What software do you currently use?
- Which of that software do you predominantly use?

The companies identified the following software being used in their environment: Corel Draw, Adobe Indesign, Adobe Illustrator, Adobe Photoshop, Final Cut Pro, Aaron Cash - sound editing, Sign Lab, Distiller, Cyber Page, Freehand, Solid Works, Dreamweaver, Protools, DVD Studio Pro, Sound Track Pro. The number of companies using each of these software packages can be seen in Figure 3: Software packages used.
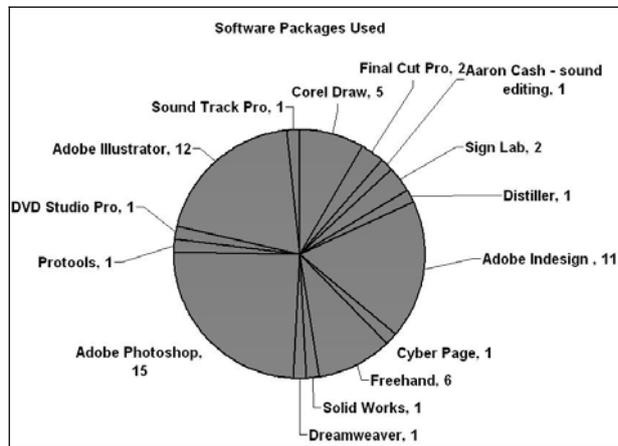

Figure 3: Software packages used

The three software package used by most companies are part of Adobe Creative Suite Design software which is the designer's toolkit for print, web, and mobile publishing. It combines the essential tools for producing everything from professional page layouts to rich interactive experiences in a unified, intuitive environment.

Companies that use Freehand admit that the use of this software package was based on user preference and choice and that this programme is no longer supported by the developers and companies and would shortly go out of use.

It can however be concluded from the results that most companies are using substantial parts of Adobe Creative Suite Design software.

In response to the question: "Are you planning to change any of the software you use?" most companies indicated that in the future they will most probably be using the full Adobe Creative Design suite which includes Adobe

Indesign, Adobe Illustrator, Flash, Dreamweaver, Acrobat and Adobe Photoshop.

Table 1: PC/Mac Research Data

Platforms used	Qty
MAC platform	8
PC/Windows platform	7
Both	2
Organisation Type	**Qty**
Printing	5
Video production	2
Sign Writing	2
Graphic design	5
Publishing	1
Manufacturing	1
Web Development	2
Software Packages Used	**Qty**
Corel Draw	5
Adobe Indesign	11
Adobe Illustrator	12
Adobe Photoshop	15
Final Cut Pro	2
Aaron Cash - sound editing	1
Sign Lab	2
Distiller	1
Cyber Page	1
Freehand	6
Solid Works	1
Dreamweaver	1
Protools	1
DVD Studio Pro	1
Sound Track Pro	1

No company indicated they were planning any significant shift in platform or software in the near future. Some indicated an upgrade from the Mac platform Creative Suite 2 to Creative Suite 3 would be required in the near future.

The consensus between the companies was definitely that Creative Suite 3 is the way of the future.

The format that files are received from their different clients varied between the companies. The different formats received from clients are .pdfs, .doc, .tifs, .gpegs,

EPS, Websites – Digi Ads, publisher files, auto cad files, Ai and bitmaps.

The comments made on the research question "What will you expect an EIT graduate or potential employee to be familiar with" mostly indicated that it is expected from employees to be able to use the Adobe Creative Suite , especially Adobe Indesign, Adobe Illustrator and Adobe Photoshop. Some knowledge of other printing software is also expected. A few companies recommended that the potential employee should know Corel Draw.

It was also felt that the graduates – potential employees should improve their awareness of the reality of the design industry. One of the respondents felt that an employee should understand that 75% of the job of graphic designers consists of typesetting and only 25% consists of the creative graphics components.

One of the respondents made the comment that students should be made aware that video will be "online" in future. The respondent continued to say that students should learn that it is necessary to nurture an "urgency factor" in the real world. Deadlines, spelling, commercial aspects, pressure, consequences of "charge out time" are hugely important in the industrial world and students should know this before they start working.

A further comment highlighted the fact that we are entering the digital world. In the printing industry digital printing is growing and digital printing has a 2 day turnaround whereas normal printing means a 5 day turnaround.

Conclusions

Even though the use of PC/Windows based platforms and Apple Mac platforms in the local Napier design industry seems to be nearly split even – most designers still feel that it is required to use an Apple Mac machine when you are doing serious design work. Furthermore this research indicated that most companies are opting to use the Adobe Creative Suite 3 to do graphical design work.

Concerning the preparation of students for the workplace the research showed that it is important for students to be prepared for the fast pace in the design industry.

The final decision on what hardware and software will be used for the upgrading of EIT's design labs has not been done at the time of print, but the research results from industry will definitely help in the decision making process.

Furthermore industry has indicated that it is of vital importance that graduates are work ready, understand the reality of what happens in the work environment and that these potential employees appreciate that industry will expect them to excel when coping with the urgency factors in this industry.

References

Anon (2006) Apple to Use Intel Microprocessors Beginning in 2006 [Electronic Version] from http://www.apple.com/pr/library/2005/jun/06intel.html.

Anon (2008a) Computers and technology Apple Macintosh or Windows PC (and what about Linux)? [Electronic Version]. *Design: Talkboard* from http://www.designtalkboard.com/tools/macpc.php.

Anon (2008b) Of Zen and Computing [Electronic Version] from http://www.ofzenandcomputing.com/zanswers/126.

Dvorak, J. C. (2007) That's right. I'm using a Mac, and, surprise, I like it. Deal. Me and My Mac. [Electronic Version]. *PCmag.com* from http://www.pcmag.com/article2/0,1759,2162397,00.asp.

Hoddie, E. D.-E. a. P. (2000). Design briefs: Apple. *interactions, ACM, 7*(2), 11-15.

Raskin, J. (1997). What's NeXT for Apple? *interactions, ACM, 4*(3), 12--16.