Resisting Obsolescence in CALL1

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Introduction

Although rarely acknowledged, one of the greatest impediments to the design of CALL materials is that, after the inspired vision, careful research and planning, hundreds or even thousands of hours of development effort, piloting, implementation, refinement, and the expenditure of resources in the form of hardware and materials and wages, the software produced ends up having a working life of only two or three years before fading into oblivion. Individual academics may be content to notch it all up to experience and quietly proceed to other paths or projects. However, when rapid obsolescence occurs repeatedly or on a large scale, it creates a situation in which the discrepancy between investment and output is conspicuously apparent. It can demotivate developers, erode institutional endorsement and funding potential, and create a strong counter-current to CALL software development.

To better understand the nature of obsolescence and to consider its implications for future development projects, this paper reflects on the influence of the passage of time on a suite of CALL materials for French (see Fig. 1) whose design, production and ongoing use occupied the author and a colleague2 for a decade.

GRAMMAR	OTHER ACTIVITIES
Adjectives	Basic Expressions
Adverbs	Bons Mots (French expressions used in English)
Articles	Clockworks
Comparison	Date
Future Tense	Dis bien bonjour! (greeting and leave-taking)
Infinitives and Participles	Epelez S.V.P (spelling aloud in French)
Infinitive Government	Grid Games (numbers and alphabet game)
Passé Composé	ID Kit (name, age, address, profession, nationality)
Passé Composé/Imparfait	Numbers
Present Subjunctive	Pot-Pourri (French general knowledge quiz)
Present Tense Verbs	Shopping
Pronoun Objects	Proverbs
Relative Pronouns	Read Your Way Around France
Reported Speech	Roadsigns
Translation Traps	VocaBuilder
Verb Kit	
Verb Tense Recognition	Weather Station
	En tête-à-tête (cued dialogues)
	Clozemaker

Fig. 1: Suite of CALL materials for French developed at University of Wollongong, 1991-2000

The wide range of design, teaching, linguistic, theoretical and practical issues addressed in the development phase or arising in the course of implementation have been the subject of numerous research articles, the most significant of these being McCarthy 1994a, 1994b, 1994c, 1995, 1996, 1999, 2000, 2001.

There is a sense in which it is very gratifying to have been part of a long-term project that has produced insights and experience, and generated materials that have gained the recognition of colleagues and students. But increasingly discernible age in the software the project has created now often arouses a reaction of techno-ageism among members of the IT community. For the most part, the 'wrinkles' in this software stem from its Hypercard base. Disparaging remarks from casual onlookers not interacting with the materials on a day-to-day basis are of the 'that must have outlived its usefulness by now', 'it's getting a bit long in the tooth', 'it's starting to show its age' variety. The natural response is to indignantly dismiss such comments out of hand. The more reasonable one is to allow that there may be some truth to them and to address frankly the possibility that the materials may indeed have passed their use-by date.

What does 'obsolete' mean?

At one level, this is an easy question to answer. Typical dictionary definitions are 'fallen into disuse', 'no longer in use', 'of a discarded type' or 'out of date'.

Yet the relationship between continued use and obsolescence is not quite as simple as it might appear. For example, it could not be claimed that just because materials continue to be used, they are not obsolete, or that if materials can be considered out of date, their use should automatically be discontinued. Obsolescence may be real or perceived, and it is the product of a combination of circumstances.

To persist in using an implement when a more effective one is available and affordable is not an offence punishable by law. Users will continue to achieve their objectives. Farmers using horses and ploughs can still prepare their fields and produce crops to meet their needs. They are, however, not competitive in the larger scene. This is obsolescence through conservatism and can occur as a result of choice, indifference or ignorance. In the domain of CALL in university foreign language instruction, the consequences of this position would be a lack of competitiveness with other institutions, and, for students, a relatively lower level of proficiency for effort invested.

There are other scenarios. Obsolescence can be the result of a disadvantage when a lack of financial resources removes the possibility of acquiring more effective tools. It can also be circumstantial when the old is used because the new cannot be accommodated – like a television set or a computer in a community without electricity.

Clearly, if someone can attach the 'long-in-the-tooth' label to a piece of software, there must be some respects in which it can be deemed obsolete. To interpret the substance of the criticism, it would seem appropriate to reflect in turn on obsolescence concerning the three fundamental facets of any CALL software: the Technology, the Language, and the Assistance to Learning.

Obsolescence and Technology

The ever-shortening 'technology cycle' is a universally recognised phenomenon, and it is self-sustaining at both the conceptual and commercial levels. Technological developments constantly create faster, cleverer, and more comprehensive ways of performing operations. It does not go without saying, however, that what these operations

are achieving is either cleverer or more comprehensive. A direct wireless implant into the ear of a foreign language learner is of little use if it can do nothing more than present the subject with a loop recording of a bilingual dictionary. Neither does an advance in technology necessarily do anything to sustain the development or improve the quality of the content of what it is processing. On the strictly functional level, as long as an appliance is capable of processing the input, that input can continue to serve its original purpose. In the 1960s, for example, record players were still commonly produced to accept 7-inch, 10-inch and 12-inch discs, and operated at 33, 45, and 78 r.p.m. So, even though 78s were no longer manufactured, they were not entirely obsolete. They were just becoming that way. By 1990, new record players no longer offered the 78 r.p.m. option, so 78s were obsolete. Vinyl records are now nearing the end of a similar path. The capacity of the contents (e.g. the voice of Nellie Melba) to inspire the admiration of the connoisseur, however, has little or nothing to do with whether they are delivered by phonograph cylinder, 78 records, vinyl disc or CD. Neither will any development in technology make it possible to produce a new original recording of those contents.

In the case of the Wollongong CALL materials, they will remain in the 'old-fashioned' rather than the 'obsolete' category as long as computers can run the Hypercard application. It must nevertheless be acknowledged that a piece of software has a much greater potential to age than do techniques such as word processing, chat, or Web searches. A number of developments have already had a clear impact on Hypercard's working life. Processor speeds have increased one hundredfold. This is in most respects an advantage. Student complaints about slow response time, common in the early nineties when the software was run on Macintosh Classics, are a thing of the past. In some cases, however, the response time has outstripped the application, so that on MacOS 9 for example, exploring the 'click-a-sound' palette in the Spelling module can set in train irritating and interminable repetitions of the one sound. There are other circumstances in which changes to management and priorities in the system inhibit the response to instructions to play sound. System-governed redistribution of typed characters within a field can distort the on-screen display, which in turn interferes with the effectiveness of screen-based clicking operations. Updated font managers can cause font resources within a stack to be overridden, or the ID of a new font such as the cross-platform Ariel introduced in Macs to replace New York as the default font can clash with a stack-internal font (e.g. the font created to manage the graphic cues in the Reported Speech module).

Overall, however, on the operational level, the impact on Hypercard of changes to Mac hardware and systems has been negligible. It is not possible to retest every facet of a very complex suite of software and implement design changes with each new system release. To attempt to do so would be absurdly costly in terms of time and resources. The economy of scale may make it worthwhile for developers to invest hundreds of millions of dollars into the production of a new version of Game Boy, but it militates against even the most modest efforts to have CALL materials for French of the type we have described keep pace with ever-quickening change, particularly in a country of 20 million people whose mother tongue is English and where the provision of tangible support for foreign language study is a long way from the top of the list of national priorities. There is, moreover, no guarantee that changes made to accommodate or take advantage of the idiosyncrasies of a new system will not stop those materials from running satisfactorily on an earlier system, thus creating a situation of software rendering hardware obsolete.

In many respects, it is what has not happened that has had the most profound effect on Hypercard materials. Hypercard does not run on PC, neither is it a satisfactory application for networking. For a time there were encouraging signs of developments to make it possible to import Hypercard into QuickTime, which runs on both platforms. Disappointingly, this has not eventuated, and, as a consequence, the currency of any software developed on Hypercard has been prevented from appreciating, and enthusiasm to continue to coin further materials in it dampened. Moreover, 'Apple Computer is not endorsing or promoting the use of HyperCard as there is no company directive to do HyperCard under Mac OS X'.3

While there are products such as Runtime Revolution and MetaCard which claim to be able to translate HyperCard (Macintosh OS) stacks into Windows OS stacks, there are serious overheads for small developers. An initial software licensing fee of approximately $US1,000, the possibility of additional annual fees, and the need for investment in appropriate hardware, all constitute a serious disincentive even to begin looking at the conversion. Additionally, there are developmental overheads in converting multimedia resources: problems with fonts, sounds, images, screen size and layout and so on that need to be converted separately from the 'stack' conversion and then re-incorporated into the new versions of the stacks, as well as the lead time in the developer learning the new environment(s).

If the pedagogical value of the software remains high, the unrestrained evolution in the domain of hardware can work in favour of any teacher not easily wounded by the shafts of techno snobbery or sarcasm. The dismissal of a piece of CALL software solely on the grounds of the 'status' or 'look' of the technology on which it has been constructed is simply another manifestation of the imperfect interface between the teacher-designer and the IT specialist that frequently manifests itself at the production stage. It is the learner and the teacher who are best placed to assess the merits of a piece of CALL software, not the technologist. If changing the software is impracticable and runs the risk of rendering hardware obsolete, and changing hardware is expensive and runs the risk of rendering the software obsolete, an obvious solution is to retain the combination that works best. If there is no better software and no better hardware for the job, then any 'obsolescence' exists only in the eye of the beholder. And given that an extraordinarily high proportion of discarded hardware is in good working order and costs very little to buy, this solution is also economically astute, is likely to have the support of budget-conscious administrators, and provides language teachers with an opportunity to expand the use of the resource.

Obsolescence and Linguistic Content

The change in language over time is a familiar phenomenon. The date of entry into the language of a word, or particular usage of a word, is often recorded in dictionaries, and most dictionary users are familiar with the symbols used to indicate that a term has come to be considered old-fashioned or archaic. In theory, this factor has the potential to cause language-learning materials to date. In reality, its impact is slight. Despite dramatic changes like foreign language teaching materials over the past half-century, very little has changed at the level of basic vocabulary and grammar. This can be illustrated by examining a passage such as the following from Lamport-Smith (1935: 46-47), a reader

that was still in use in junior secondary French classes in New South Wales secondary schools well into the 1950s.

Chez l'Epicier

Colette et son frère cadet sont allés au magasin de l'épicier pour lui passer les commandes de leur mère. Une bonne odeur de café les accueille à la porte, car un garçon épicier est en train de tourner la manivelle du torréfacteur sur le trottoir. Un petit feu de charbon de bois chauffe les grains. Ensuite il les met dans un tiroir, car la savante ménagère aime les acheter chauds. Sur les rayons et dans les casiers sont mis en vente les boîtes de conserves, les bouteilles d'huile, les vins et les liqueurs, le savon, les saucissons, des boîtes de pâtés et de la bougie. Dans les tiroirs du casier se trouvent l'amidon, le sel, le sucre, le café et le riz. Devant le comptoir, sur le parquet aux carreaux blancs et rouges, sont alignés les sacs de lentilles, de haricots, de pois et de farine, et des caisses d'oranges et de citrons. Sur un autre comptoir sont les gros fromages, les mottes de beurre et le lard, qui sont vendus au détail. Le patron est en train de découper une tranche de jambon d'York. A la caisse, une bonne paie les marchandises qu'elle vient d'acheter. La caissière ouvre le tiroir de la caisse automatique et une petite sonnette indique que la caisse est ouverte. Vite, sur le clavier de la machine elle enregistre le montant de l'achat. Le patron note la commande de Colette qui demande: un kilo de semoule, un quart de sel, deux kilos de sucre, quatre boîtes de sardines, une boîte de dattes, une bouteille d'huile de noix et deux kilos de lard.

The scene created here is indisputably a period piece, and this is reflected in the extremely dated picture accompanying the passage in the textbook (Fig. 2). The individual lexical items, however, even manivelle, torréfacteur, bougie, amidon, and bonne, are all in common usage in 2001, though perhaps with modified connotations. A secondary message here, which applies to software designers as much as to the authors and publishers of print materials, is that graphics, and particularly photographs of daily life, have a far greater capacity than words to cause materials to appear outmoded.

Fig. 2: Illustration by Ferdinand Raffin, accompanying the passage 'Chez l'Epicier' in Le français par l'image , L. Lamport-Smith (1935: 46)

In many areas of language, there is evidence of a 'survival of the fittest' or a 'strength in numbers'principle whereby the closer a word is to the core of the system, and the more frequently it is used, the more resistant it is to change. For example, although the most commonly used verbs are the most irregular, they are the least likely ever to be regularised. This principle has also served as an anti-ageing force for the software in question in several respects. A conscious decision was taken at the design stage to make the materials text-book independent. The structural and functional grammar points covered in the various modules were chosen because they were common to a large, methodologically diverse range of beginner French textbooks of the last 40 years. They are core language features and have wide currency. And since these points are dealt with at sentence level rather than as an inextricable part of a larger unit of discourse (text, audio, or audio-visual), they are far less susceptible to the ravages of time than, for example, a unit of work built around a digital video recording of an authentic conversation between two secondary school children in a 1980s French schoolyard. However they may rate in the foreign-language teaching fashion stakes, communicatively minimalist activities such as straightforward verb conjugation (e.g. Verb Kit and Verb Tense Recognition modules) must be considered virtually ageless.

Another design principle was, wherever possible, to use vocabulary appropriate to the level of difficulty of the grammar point. Because most of the grammar is elementary, most of the vocabulary is that of 'le français fondamental', i.e. it is 'core' vocabulary, and on the 'survival of the fittest' principle, little affected by the passage of time is a minor point of grammar. Within the Adjectives module, a small well of items was created for invariable adjectives. It included the word 'sympa' which is defined in the 1990 edition of 'Le Petit Robert' as 'invariable adjective; first known use 1906; register: very familiar; meaning: sympathique'. In the 2000 edition, the meaning and date of entry into the language are unchanged, but its register has shifted from 'very familiar' to 'familiar', and it has become a regularly declined adjective –8211; i.e. it now takes an 's' in the plural. For the software to accommodate that change, the only action required is the deletion of a small number of items from the bank.

In a corpus of some 22,000 items, only two clear linguistic 'wrinkles' have appeared to date. The first

The second 'wrinkle' is, in fact, a set of wrinkles. It has appeared in the news snippets (over 10,000 of them) from the Web on which the Future Tense, Relative Pronouns, Infinitive Government and Infinitives & Participles modules were constructed, and can be seen clearly in items such as:

Shimon Peres s'est borné à remercier Yasser Arafat pour 'ses efforts intenses pour amener nos deux peuples à la paix et à l'espoir', mais il a également évoqué les difficultés [***] les deux parties avaient à 'escalader les pentes glissantes' de ces négociations. [que]

Avant ce vote, [***] l'issue ne faisait d'ailleurs aucun doute, le Premier ministre avait été assuré du soutien du président de l'UDF, Valéry Giscard d'Estaing et celui du RPR, Jacques Chirac, deux autres présidentiables de la droite, sur son action gouvernementale. [dont]

The grammar features covered in these modules, being of an intermediate rather than beginner level, are frequently couched in relatively sophisticated linguistic environments (vocabulary, syntax, grammar). They are consequently more likely to be affected by the principle of 'the larger the unit of discourse, the higher the risk of ageing' alluded to above. This risk was recognised at the design stage, but any negative impact it

might have was considered to be far outweighed by the value of the linguistic authenticity of the press clips and of the wealth of cultural references they contained.

'Any collection of news and current affairs items creates a rich cultural backdrop containing a blend of social and political events that are of abiding significance because they had an impact on national or international affairs [European Union, the war in ex-Yugoslavia, the end of apartheid in South Africa, the Rwanda tragedy, the Middle East, the 50th anniversary of the Normandy invasion, the TGV, the Channel Tunnel], and of everyday matters (sport, community, education, politics, crime, transport, religion, agriculture, town planning, industry, youth, lifestyle, human interestq¥• E that are of perennial relevance - the names and places may vary, but the themes, newsworthiness, and intrinsic cultural relevance are constant.' (McCarthy 2000)

This is one type of ageing that it is better to accept with dignity, given that the alternatives are far from satisfactory. Those alternatives include: renouncing any attempt to contextualise the grammar; updating or re-establishing the 9 million word corpus regularly, scanning it for relevant examples, then updating the banks of items in each of the modules; or attempting to fabricate large banks of culturally pertinent but time-neutral items.

Obsolescence and Assistance to Learning

From a purely educational point of view, the only compelling reason to abandon a resource is if it loses the capacity to serve in a particular teaching and learning environment. This situation may be the result of such diverse factors as the disappearance of the supporting framework, lack of integration, loss of the power to stimulate learning, or superseded by improved materials.

Curriculum Environment

Teaching manuals and textbooks come and go in all disciplines, their life span being a function of changing needs, fashions and tastes, and of the evolution of educational theories and priorities. In the increasingly probable situation of DVD and/or CD ROM replacing paper as the platform for the delivery of comprehensive, structured courses, it will be possible for entire suites of computer-delivered materials to be discarded in the same way as their print-based predecessors. And as with abandoned textbooks, the only chance of survival of any particularly useful segment (e.g. a dialogue, a piece of realia, or a language exercise) will be as an item stored away in the electronic section of the resource cabinets of conscientious teachers. Current trends in foreign language teaching appear to be increasingly in the direction of eclecticism, and the primacy of the communicative aspects of language places a strong emphasis on the teacher as an organiser, an informant, and an intermediary between the learner and the material. In this environment, computer-based activities serve principally as adjuncts and supports. Their relative autonomy gives them the capacity to 'float' above change at other levels, provided that the hardware is available to run them. Technological support for software, however, is a far more complex, costly, and unpredictable matter than it was for audio cassettes or even videotapes.

Changes in student needs, reflected in curriculum change, can also marginalise any teaching materials, including software. It is very likely, however, that use of software that provides effective instruction in an independent learning environment will increase in the great majority of educational institutions, since its services are seen as a cost-efficient alternative to human resources.

Teacher Commitment

The continued use of any effective teaching resource is also heavily dependent on the individual teacher's energy, enthusiasm, organisational skills, methodological convictions, and continuing employment, and the importance of this human factor should not be underestimated. The only honest answer for the author to give to the not uncommon question: 'What will happen to all this when you go?' (well, the only one apart from the expression of surprise at the implication by insouciant and insensitive 18-year-old students that a teacher in his mid-fifties is close to retirement or some other form of demise) is 'That depends.'. In asking the question students are recognising the commitment required on the part of the teacher not only in the development of the materials, but in initiating each new cohort of students into its use, maintaining both the software and the machines, linking the use of the materials to other facets of the course, and ensuring that the computer-based tasks are integrated into course assessment. In the case of the grammar modules at Wollongong, this integration involves:

- preparing and presenting handouts on the rationale behind CALL use;
- preparing a schedule detailing the content of the various modules and students' required level of achievement in numerous computer-based exercises (varying from 5 to 20, depending on the course);
- emphasising and implementing compulsory computer preparation;
- preparing, posting and checking the sign-up sheets on which students indicate that they have completed the preparation;
- where necessary (i.e. where there is any doubt that the information supplied by students on the sign-up sheet does not match their actual performance on the computers– e.g. in the early stages of first-year courses) checking the scores on all 15 computers in the private study laboratory;
- keeping a record of the (fortunately very rare) students who fail to complete the computer preparation on time and ensuring that no result is declared at the end of the session until the requirement has been met;
- reproducing on-paper tests and administering them in an agreed timeslot out of normal lecture time (the tests, generated by the computer, correspond in scope and depth to the various compulsory preparation exercises completed by the students);
- marking the on-paper tests and recording the marks.
  Integration of the 'En tête-à-tête' cued speaking materials (with a class of 60 or more) involves:
    ensuring that students have encountered the necessary communicative situations, vocabulary, and grammar in the course of lectures (through dialogue presentation, speaking activities, grammar presentation and homework exercises);
- presenting the cues and responses to the class as a whole via overhead transparencies– usually 10 dialogues per session;

- distributing sets of cards to the class for pair work (to set this activity up involved a one-off preparation and collation of over 20,000 slips of paper: 300 dialogues, 2 cue cards (1 for each speaker) per dialogue, 40 sets of cards);
- supervising a class in which 60 or more students are engaged in a speaking activity simultaneously;
- initiation of students to the CD ROM activity with full audio support which enables them to work on the material privately outside of class;
- distribution of the full set of cues and responses, after they have been completed in class, as a take-home private study resource;
- preparing, conducting, and grading the cassette-based end-of-session oral examination using which student mastery of the speaking skills are assessed.

Assessability

University students are the first to acknowledge that if a task does not count in a significant way towards their end-of-semester grade its priority will always be sufficiently low for it to remain on the 'things I must get around to' list, no matter how potentially useful the resource or how genuine their interest in the subject.

There is further evidence of this sobering reality in the fate of the bulk of the non-grammar activities (Fig. 1). Most of them deal with notions and speech functions (e.g. Personal Identification, Shopping, Weather, Date, and Time) that are as basic and indispensable to communication as the grammar in the drill modules. They are far more sophisticated in design, incorporate sound and graphics, and are comprehensive, simple to use, and stimulating. The flaw, which has made most of them inappropriate for use in the university environment in which they were produced, is that they are constructivist in character. There are no doubt many contexts in which this aspect would be considered a distinct plus. It is not hard, for example, to imagine them being used very creatively in a secondary school classroom where the system does more to foster, and students are more willing to engage in, learning activities for which the measure of success is personal satisfaction and an unquantified sense of achievement. The full suite of non-grammar learning activities is available on every computer in the private study laboratory, students are aware of their existence and know that their contents are relevant to their studies and have the potential to enhance their language skills, but they remain virtually unused. If disuse is obsolescence, then those materials are obsolete, and some of the main contributing factors have nothing to do with the computers, the language, or the aid to learning. They are the result of external factors, such as class size (e.g. the first semester of 1st-year French, with over 60 independent and socio-culturally diverse students, is more than 2.5 times a big as the largest senior secondary school foreign language classes) and class time available to cover the syllabus (even in the best Australian university scenario of 6 hours class per week, students have only 30% of the face-to-face teaching their secondary school counterparts to receive, and it is delivered over 26 teaching weeks in one academic year instead of between 200 and 240 weeks over 6 years).

Labour and Cost

One of the common base-level choices in CALL software design is whether to create a complete off-the-shelf activity whose contents cannot be modified or a shell which gives

teachers the freedom to import and amend the contents. The decision made at that point does not in itself determine whether the end product is educationally sound. But it may have an impact on its longevity. A fixed unit whose contents render it in some way inappropriate to a given instructional environment is likely to be of limited use and very susceptible to abandonment. But a shell, even one of outstanding quality in terms of the operations it allows, that requires regular or sustained effort on the part of the teacher to locate, import and maintain the contents, is probably doomed to a similar fate. This is a lesson that was learnt during the seventies and eighties in the era of the language laboratory whose demise was not principally the result of its functions having being superseded by computers with superior capacity for interactivity, multimedia operations, and escape from linearity. Neither did it reflect the view that audio recording is not a good tool in foreign language instruction. By the time computers arrived on the scene a great many institutions were already referring to their cassette-based language laboratories as white elephants because teachers were simply not in a position to constantly prepare or update recorded material, to supervise its use, and to integrate it into the curriculum, assessment procedures and evolving educational theory. As with language laboratories, teachers are looking to computers as a way of improving their capacity to instruct without further increasing an already heavy workload.

Assuming that the capacity of teachers and designers to continue to develop quality materials is constant, one key to the viability of foreign language instructional software lies in the successful management of the balance between the need for the materials and the effort and resources required to produce them. Although the needs base is most clearly defined within the individual institution, it is rarely possible at that level to invest thousands of hours into producing materials, or thousands of dollars into purchasing and adapting externally produced materials and systems, if there is no guarantee that they can move freely across borders created by technology cycles and phases in educational philosophy, or that they need they were designed to meet will not evaporate. The smaller the clientele, the more likely it is to feel the impact of this principle. And the clientele for foreign language learning materials is extraordinarily fragmented by factors such as the age and the cultural and linguistic background of students, institutional priorities, financial resources, teacher preferences, and government policies. Development costs must be weighed up against a realistic assessment of future use and of the capacity of the software to save resources or generate income.

Measured Steps

In terms of technological evolution, the change from Power Macs to iMacs, for example, was small. Where it did force people to upgrade, it was not usually for purposes of their routine in-house wordprocessing, but because of their desire or need to perform new tasks (downloading audio, video, animated graphics from the Web, streaming, connecting to high-end applications, or dealing with higher version documents sent from outside). It did not represent a quantum leap of the same order as the advance from the printing press to the computer, or even from the Apple IIE to the Mac Classic. To treat every development in IT as a signal to update-or-scrap existing CALL software is a recipe for unnecessary frustration.

It is sobering to ask oneself the question of which foreign language software will still be here in 5 years, let alone 50. In such a climate, it is important to counter the threat

that CALL modules and packages may soon be viewed as yet another manifestation of 'boom and bust' in the history of foreign language teaching. One strategy is to make durability (of the platform, content, and educational philosophy) a primary consideration at every stage of development, and to calculate on taking the longest possible development steps on the safest possible footing.

Image and Attitudes

To change for the sake of change, particularly when to do so is costly and gives no guarantee a superior product, has the potential to cause considerable long-term damage. And it is important to learn to dissociate 'look' from functionality. The notion of a 'classic' (in the sense of something simple and conventional whose popularity is largely unaffected by changing fashion) seems to have gained very little currency in the world of CALL software. There are classic design principles, but the materials that embody them tend to be ephemeral.

For a student or teacher to feel that fully operational software should be abandoned solely on the grounds of unfavourable reaction to some of its aesthetic qualities makes little sense. And for perceptions in the broader community, it is perhaps unfortunate that standard English syntax happens to place adjectives before nouns in phrases such as 'computer-aided language learning' thus unwittingly according semantic emphasis to the means (the computer) rather than the end (the learning), whereas, in a language such as French, where the same referent is labelled 'enseignement assisté par ordinateur', the structure is such as to give the substantive ('enseignement': teaching) primacy over the qualifier ('computer-aided').

The Student Perspective

As long as materials are operating smoothly, it is ultimately the learners who should decide on whether they are useful or not. It was reported in the early stages of use of the Wollongong CALL materials that 'on the academic level, feedback from students is very close to 100% positive' and that 'negative comments relate almost exclusively to operational matters and are concentrated on two areas: the speed of the computers and the fact that accurate typing is required' (McCarthy 1996: 26; see also McCarthy 1995: 40-41). It should be safe to assume that after 10 years of use, any halo effect must have well and truly dissipated. Nevertheless, in the second semester of 2000 an anonymous survey of all students enrolled in French (a completely different cohort from the one reported on earlier, and from a wide range of specialisations, including IT) revealed that without exception they found the use of the CALL grammar materials to be helpful to their studies. In the second semester of 2001, another anonymous survey of all students sought their reaction to the observation that the materials were looking long in the tooth and must have outlived their usefulness. In the matter of aesthetics, there were mixed responses, ranging from the total endorsement of the cosmetic criticism to obliviousness to any signs of age. Operational problems related less to speed (the present machines are faster than the original Macintosh Classics), and more to the intolerance of the machine to any inaccuracy in typing, to the relatively slow load time (response time once it is loaded is not a problem), and to the fact that (being Hypercard-based) it cannot be used on PCs and

does not lend itself to off-campus (on-line) use. Once again, all students were finding the materials useful in some way. Repeated mention was made of the advantages of immediate feedback and the possibility of individuals working at their own pace. Responses ranged from straightforward positive comments regarding the simplicity, thoroughness and usefulness of the materials to resounding endorsements ('invaluable', 'absolutely necessary', 'one of the most positive aspects of the course') and even downright indignation at any hint that its usefulness might be considered to have diminished (in the words of one student: '*** to that– it's not true!').

Looks and technical limitations aside, students could not imagine anything doing a better job of reviewing and maintaining basic grammar. In addition, many of the students proceeded to offer their own surprisingly perceptive analytical comments, including:

- 'Grammar is grammar and does not change at the same rate as computers (or consumer appetites!)';
- 'its pedagogical worth has not diminished one bit';
- [any problem with] 'its appearance is far outweighed by its highly evolved nature and essentially flawless performance';
- 'the immense (sic) cost and effort that would be involved in transferring the data from current programs to a modern GUI (Graphical User Interface) application would be beyond the budget of the University, let alone a small company or department. A major software producer for small level business [name supplied] charges upwards of $200 per hour for software development and repair';
- 'as it [the grammar software] is for the most simple grammatical sentences, it really can't outdate';
- 'ease of use, understandability, practicality and effectiveness are far more important than graphics or design';
- 'as long as the computer performs its function and assists a student in developing his/her language skills, then aesthetics are irrelevant';
- 'this software is just as relevant now as it was when it was first produced, and probably in the future', 'I think that changing the layout or look will not substantially improve the software';
- 'The content is fantastic... At first I thought it was outdated and probably would not have utilised it as a learning resource. Because it was compulsory I realised how beneficial it was and do not see a great need to upgrade';
- 'the grammar that it's teaching us doesn't change';
- 'if there is no substantial change to be made in the content, it seems like a waste of resources to develop a new version of the same thing... the databases behind the software are quite adequate as they are'.

The essence of many of the preceding observations is summed up in one student's laconic, if hackneyed, 'If it ain't broke, don't fix it'.

The purpose of this paper has not been to oppose development or resist change. It has been to contest the often unconscious use of 'look' as the sole or main criterion for assessing a piece of software. Moreover, it encourages software consumers to assess the shelf-life of products from the perspective of 'best before' rather than 'use by', as the former, by emphasising usefulness and minimum life span, keeps the focus on the recognised qualities of the contents, whereas the latter suggests that the product should

be discarded on a given date regardless of its actual value or the existence of a satisfactory substitute. Although it has been essentially a case study, many of the concepts and principles evoked are universals. They point clearly to two broad conclusions. The first is that the working life of a piece of CALL software can be lengthened considerably by taking full account at the design and development stages of the range of factors that can cause such materials to fall into disuse, and by consistently working towards minimising their impact. The second is that materials that continue to meet genuine student needs and that leave institutional registers of material and human resources in the black are well placed to resist challenges to their viability based on superficial criteria. Not having continually to revise or recreate allows the developer to take fresh steps unhindered. It is not particularly difficult to brand something a 'dinosaur'. But the label alone does not make it extinct. It is a more challenging assignment to create something that looks like a dinosaur, but that is intelligent, robust, well-exercised... and has long teeth.

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Notes

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3. Personal correspondence (6.6.01) from Tess Collins, Partnership Manager, Australia-New Zealand, Worldwide Developer Relations, Apple Computer.