

The use of computer technology to store and redistribute voice as an aid to translation services

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Machine dictation has always been the fastest and easiest method of getting thoughts and ideas onto paper and into action. Writing in longhand produces approximately 10wpm, shorthand 30wpm. By contrast, the average speed using a dictation machine is 75wpm. The figures for output are equally impressive. From the secretary's point of view, the average speed of typing from longhand is 10wpm, from shorthand 15wpm; audiotyping produces an average of 30wpm.

The benefits of machine dictation have been known for over 100 years – in fact it all started in 1888 when a fellow countryman of mine, the canny Scot, Alexander Graham Bell, produced the first commercially available dictation machine. Like most equipment, dictation products have moved with the times and now we're well into the computer age and digital recording techniques. This has brought a number of advantages and is enabling us to move away from traditional analogue methods such as the cassette tape. Tapes are fine for certain applications but they do have their limitations – not least being they have to be physically handled and moved from author to typist with the attendant danger of the tape getting lost and wasting valuable time. Digital technology has allowed us to remove the need for individual machines on the desk or in the pocket and use instead another communications tool Alexander Graham Bell invented – the telephone. Now, with our latest systems you can simply pick up the phone and dictate onto computer hard disk.

Our system is called Digital Express – we like to call it a voice processor simply because DX brings to dictation all the flexibility and efficiency that word processing gave to typing. With storage on hard disk, the system allows random access to voice data just dictated and provides authors with instant edit facilities for the easy alteration, deletion or insertion of spoken information. Access to the

system is by dedicated input terminals which have program keys to provide one-touch activation of systems functions. Alternatively standard multi-frequency phones (including car phones) can be used.

Let's look at the benefits in more detail:

Listen/random access. Provided they know the correct password anyone registered on the system can listen to other users' dictation. This means information can be retrieved before it has been typed.

Priority. DX has a priority system which means that with the press of a button, urgent work can be placed at the front of the queue for work awaiting transcription.

Insertion/edit. One of the reasons people give for not using dictation is the pressure they feel for getting it right the first time. It's not like writing where you can just cross something out. With DX, this problem has been removed. As on a WP, recorded material can be freely edited by the author. Complete sections or even individual words can be deleted or altered and additional material of any length can be inserted at any point with a seamless join.

Impression cueing. This facility allows an author to give a summary of his or her text to which a listener can move immediately.

But Digital Express not only offers these state-of-the-art dictation capabilities. To make the system even more versatile, we have added a full function voice mail package. Voice mail is a fairly new phenomenon – it's similar to electronic mail but without the need for keyboard entry of messages. As with dictation, DX voice mail users just pick up the phone and leave a spoken message which can be circulated to a whole group of different people. It's much more than a telephone answering system because it offers interactive communication allowing multiple users to be circulated with the same message and permitting them to reply, forward or save that message for future use or review. DX 3000 has the capacity for 500 individual mailboxes permitting a maximum of 16 messages per user. A single message can be sent to up to 20 people registered on the system.

By linking voice mail to a digital dictation system, Dictaphone has produced a number of key features/advantages:

- the facility of full editing of a message prior to sending
- the ability to reroute a voice mail message to a secretary for the production of hard copy – no other voice mail system on the market offers this
- all mailboxes are password protected for confidentiality
- the system can be accessed 24 hours a day from any phone anywhere in the world
- forward with prenote – if having received a message you wish to redirect to someone else, this facility allows you to add a forwarding message of your own.

So that then, is Digital Express. Let me now go on to look at how it might make the life of translators easier. First of all let me say that DX is not a panacea to solve existing problems and totally replace current methods. More, it is a right hand to assist current systems.

DX really comes into its own in times of urgency. Its 24-hour availability at the end of a phone line is very advantageous. A customer could call into the system with an urgent piece of work and leave the spoken text on the system ready for translation. The destination could be determined by which language is required with each language having a different mailbox number. So for example, if you wanted some text translated into German you could select the German mailbox number and it would get picked up by whoever was assigned that day to handle German. When leaving the original message, the customer would not have to worry about making mistakes as DX has the facility for changing text prior to sending. This is an important feature since other voice mail systems would require the caller to repeat the whole message if a mistake was made which needed correcting. The insert facility works just like a word processor, i.e. the operator can add extra text without interfering with the information already committed to the disk. Existing text is reshuffled to make room for the new text in exactly the same way as a WP would handle it. In addition, if an author wishes to delete portions of text or even single words this can be achieved without leaving gaps or silences.

Voice mail also provides confidentiality. Translated texts can be left in a customer's mailbox in the knowledge that no-one else can access it unless they know the correct password. For example, say a customer wants something translated urgently and confidentially. He can fax through the text to a translator and then the translator can phone through the new foreign text into the customer's mailbox – simultaneously while reading the original text if needs be. The message can then be picked up by the client from any telephone anywhere in the world at any time of day! So if a client was going to French-speaking Canada and needed something translated into French by the time he reached his destination, this could be done. The client would merely phone through after the eight hour flight – or these days you can even use a phone on the plane! All highly efficient.

With Digital Express, the production of hard copy is simplicity itself. A spoken message simply has to be rerouted to a secretary who can type up a document immediately. It is just a question of pressing the appropriate button.

DX also has a summary function. Summaries of reports can be flagged by the author and a recipient can go straight to this section if required. In addition, the forward with prenote function will allow a translator to give any comments about the text before it is listened to. As an option, DX can be equipped with an Expresslog management control system which gives screen display of all the system's activities – who has left messages, whether they have been typed, listened to and so on. (See Figures 1a and 1b.)

Clearly, DX is a powerful new communications tool for business – it is

TEST REPORT
 FROM 1-30 SEPTEMBER 1989
DIGITAL EXPRESS: ALL EVENT STATUS: ALL CLIENT 286

Client 286	Language	Jobs	Length
	01	6	96
	02	3	42
	03	1	120
	04	21	528
	05	9	179
	12	7	213
	14	2	62
	18	4	122
Subtotal Client 286:		53	1362
REPORT TOTALS:		53	1362

Figure 1a

TEST REPORT
 FROM 1-30 SEPTEMBER 1989
DIGITAL EXPRESS: LANGUAGE 05 STATUS: ALL CLIENT 286

DATE	TIME	EVENT	JOB	PRIORITY	USER	AUTH	CLIENT	LEN	LANG	STATUS
9/03/89	13.55	S	215	-	101	521	286	22	05	
9/08/89	11.10	S	241	-	101	521	286	13	05	
9/10/89	19.35	S	252	-	103	525	286	16	05	
9/17/89	10.20	S	271	-	101	521	286	58	05	
9/19/89	15.10	S	285	P	103	526	286	16	05	
9/23/89	13.15	S	301	-	103	525	286	21	05	
9/27/89	20.05	L	322	P	2864	521	286	14	05	
9/28/89	09.10	S	327	-	101	525	286	8	05	
9/28/89	09.20	S	329	-	101	525	286	11	05	
9/28/89	09.20	S	322	P	103	521	286	14	05	

Figure 1b

Figures 1a and 1b. Examples of Expresslog management control system

designed to make maximum use of people's time and shorten work turnaround. Its total accessibility at all times of the day has the effect of lengthening deadlines too.

But are there further developments in the pipeline, I hear you asking? Well naturally, like any company, we have our boffins working on even more exciting features. The future will almost certainly see the introduction of voice recognition and the automatic conversion of speech into text and vice versa. Indeed we already have a system with a vocabulary of about 5,000 words which can do just this!

Ultimately, of course, we have the challenge of the instant translation of speech. As you know computerised translation already exists, it is merely a question of bringing the two together. After all, speech will always be faster than writing, and it is Dictaphone's stated mission in life to provide business people with the equipment that helps them make most use of their valuable time by putting ideas into action via the spoken word. So watch this space!

AUTHOR

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