Establishing a Small Braille Production Centre

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Introduction

Braille has not been superceded by other forms of non-visual media despite numerous predictions to the contrary. Although audio systems, such as the tape recorder, and reading aids with tactual or speech output play an important role in giving blind people access to information, braille is still supreme in its use for reference and technical material. Another important aspect is that a blind person can write braille without having to invest in expensive equipment.

When examined in isolation, the quantity of braille produced looks very commendable. However when it is compared with what is available in print it is easy to understand why many blind people feel they are severely handicapped by their lack of access to information.

There is no optimal solution to the problem of setting up a small braille production facility. This is in part due to the lack of commercial interest in this problem and in part due to the fact that the deployment of new technology has been limited by a lack of investment. The field has been characterised as suffering from "benign neglect"; while the demand for the talking book increases year by year, the demand for braille stays relatively constant.

Because of the economies that can be realised, it is worth considering the operation of a joint tape talking book/braille/large print production organisation. The relatively high cost of braille production can thus be partially offset by the economies to be realised in sharing overhead, some space, and possibly some staff including the overall guidance and direction

of a single manager.

One factor limiting braille production is the acute shortage of people skilled in transcribing text to contracted braille. To alleviate this problem many of the larger braille production centres use computers to translate text to braille. The English grade 2 code utilises 190 abbreviations and contractions governed by a complex set of rules dependent on pronunciation and meaning. These rules are not ameniable to direct implementation by a computer. One result is that existing computer systems can only produce a good approximation to grade 2 braille. The number of incorrect uses of contractions is quite low but human intervention is required if the output is to be "perfect" grade 2 braille. For many braille readers, speed and availability is more important than keeping precisely to the official specification of grade 2 braille.

The advent of the microcomputer has encouraged a number of organisations to produce braille even though they had no expertise in this area. For instance a trade union is installing a microcomputer system so that information can be circulated in braille as well as in print.

The Choice of a System

The first step is to estimate with care how much braille one would like to produce. Typically a small production facility may produce per month one newsletter (60 copies of 15 braille pages), and one hundred documents (3 copies of 10 braille pages). It should be considered whether what it is planned to produce best meets the needs of the braille reading population - or whether it is the easiest to produce.

In any case, when production in braille is expanded it is likely that increased production will be concentrated on smaller quantities of a variety of texts. Since a large proportion of the cost of producing braille is invested in producing the first copy, the cost of each braille volume will be greater for smaller production runs than for longer ones. Some materials may be better handled in talking book form.

Funding. The next step is to decide upon the amount of available funds to cover the costs of buying equipment, maintenance, materials (braille paper, binders, covers, etc), staff costs and overheads. It is usually easier to find money to buy equipment than to run it. Further, most equipment should be amortised (its value decreased to zero) over seven years; beyond that time the equipment may become too unreliable to consider keeping it (but there are some exceptions). Simpler machinery can give ten or more years' service with a minimum of routine maintenance. For most electronic equipment, it would be wise to count on a maintenance cost of 15% of the purchase price per year.

Some of these costs can be met through contractual arrangements with organisations of and for the blind. There are also organisations such as banks and insurance companies which are prepared to pay for their booklets to be made available in braille.

Space Requirements. Braille is a bulky medium. The expansion in size of an ink-print version of an ordinary volume to its multi-volume braille version may be twentyfold. Additional space must be counted on for the production system which includes collating and binding the braille pages, the storage of the completed volumes before they are distributed, and the space required in the master and duplicate copy library. A braille press for producing magazines will require about ten times as much space as the vacuum forming system used for small quantity braille production - say, 10 versus 100 square meters.

Sometimes planning ahead can alleviate some of these problems. If, for example, the full number of anticipated copies needed is produced all at once, the storage problem is compounded. It may be useful to consider a system in which an extra copy of a book is produced on the same day that the request is received. This problem generally does not exist for the special case of magazine production, since the circulation of the magazine is usually well defined before the production run is begun.

Another factor influencing storage space depends on whether the production system used makes braille embossed on only one side of a page (single-sided embossing) or on both sides (interpoint or interline).