# Proving that interactive movable type works

**It doesn't need to be "proven"** that interactive movable type (hereinafter referred to as "muvable type" – and with the text set in muvable type to be called "mutext") will greatly increase the speed or improve the efficiency of readers to bring it into wide use. It's obvious and self-evident that every individual will be able to read mutext print at least as well as he or she can read conventional text because mutext can be displayed in the conventional linear typography – as well as any of the five mu formats. But, readers of mutext will also have the option of having the text presented as visual text, aural text, or *simultext*. **The important fact** is that, with the array of reference, linguistic, and audio-visual tools that support muvable type, everyone will be able to read mutext, including **young children, aged illiterate adults, individuals who are visually-impaired or hearing-impaired, and those who are handicapped with learning impediments, such as dyslexia, autism, or other learning or communication disability**.

**Muvable type is primarily a new kind of literacy tool**. Muvable type will enable even the poorest nations to move rapidly to full literacy at costs they can afford. This will become possible because all of a nation's inhabitants can learn to read without requiring the construction and maintenance of costly – and highly labor intensive – school systems. Muvable type is a reading facilitator that will enable everyone to read regardless of their perceptual and cognitive capabilities and their educational backgrounds. With the many display, design, and delivery options provided to the reader – and with the support of the mudoc reference substructures – most users should be able to read at higher rates and with better comprehension than is possible with documents with conventional text. But, **muvable type's primary purpose is NOT to make today's readers better readers** – although it is expected to do that – but **to make readers of all of today's nonreaders**.

Those who don't already know how to read will be able to start reading immediately with muvable type because all the words in the printed text can be simultaneously accompanied by speech provided by The Mudoc Speechifier, an eloquent speaker who is highly fluent in the particular language in which the text is written. (The term applied to this simultaneous presentation of printed text and spoken text is called *simultext*.) The Mudoc Speechifier will be a highly sentient creature of information technology, who, by tapping into the vast collection of data available in the relevant mudoc reference substructure, will be able to provide extensive data about any word a reader might encounter in a body of mutext. The information available about the word will include

its different pronunciations, various definitions, grammatical characteristics, etymology, and, when they exist, synonyms, antonyms, homophones, and homographs. Other helpful information about any particular word that might be found in a mudoc reference substructure could include examples of use, pictures, drawings, maps, charts, tables, voices, music, sound effects, computer graphic representations, or other descriptive or pictorial information about the word that may be found in that language's reference substructure.

Such reading of text by illiterate persons will sometimes be called *cheatin' readin'*, because, in spite of the fact that they don't know how to read, they can start reading anyway. The Mudoc Speechifier will serve as a highly knowledgeable and eloquent tutor who knows the reader's language – and is "on call" 24-7. With the ability to deliver printed information both visually and aurally, this personal tutor will enable the reader to have any word in a body of mutext fully explained, illustrated, demonstrated, and, sometimes, dramatized.

Most of the software, linguistic, reference, and audio-visual tools needed to make muvable type work already exist and work effectively. The second of the mudoc software's two basic algorithms, **the formation algorithm**, will incorporate and utilize many of these tools. The only completely new element in the interactive movable type tool chest will be **the annotation algorithm** – the algorithm needed to give muvable type its special design capabilities. Two Web pages that describe how the annotation algorithm will work are "What the Mudoc Software Will Do for Readers" at http://mudoc.com/muswdoes.htm , and "Setting interactive movable type" at http://mudoc.com/settingIMT.pdf

How well the mudoc software will work with any of the particular languages with which it might be employed will have to be determined through analysis, testing, and experimenting with that language. But, before such testing and development can be carried out, the software needs to be operational. So, the conundrum is "How can it be proven that the mudoc software will work with any particular language before the software exists?" when the basic tool needed to carry out such R&D is the software itself. Those who demand proof of the software's effectiveness before it is developed and becomes operational are asking the impossible. We know that the software's basic algorithms can be developed for a trifling sum – a few hundred thousand dollars. Limited proof could be obtained by simulating all of the capabilities of the mudoc software, but that would cost millions of dollars – for which support is even less likely to be provided.

All of the concepts underlying the interactive movable type software and the other tools of the mudoc technology are spelled out on the mudoc.com website. What seems likely to happen is that some software developers in India, Russia, China, Europe, or elsewhere will see the potential in such software and related hardware tools (such as the telereader terminal), will develop them, and will then deliver them to the rest of the world, including the United States.