Purpose In general, our society could not exist without standards, usually technical ones. A special type of standard derives from health and safety, or usability considerations; they lead to ergonomics standards or human factors standards that specify, for example, the size of characters required for easy reading[1]. However, such ergonomics standards usually apply only to people with 'normal or adjusted to normal' vision – not to people with yellowed eye lenses, or those with low vision; they are not written with older persons or persons with disabilities in mind. This 'neglect' of a sizable portion of the population was the reason for the International Organization for Standardization (IOS) and the International Electrotechnical Commission (IEC) to publish, in 2001, a guide for the adaptation of existing standards, or, if necessary, creation of entirely new standards, taking the needs of older persons and persons with disabilities into account[2]. Since this Guide 71, of necessity, is written at a rather high and abstract level, the need was felt for more detailed and concrete guidelines. These were published recently in a Technical Report from ISO[3]. Gerontechnology research has provided much of the data in it. But what is the benefit that gerontechnology – or, for that matter, any other technology - can have of standardization? This has to do with selecting the source of information one may seek and taking into account three factors: (i) ease of searching; (ii) reliability of the data found; and (iii) applicability of these data in the seeker's context, i.e. are there application directions or application methods added to the data? Nowadays, there appear to be four main information sources for such an aim: the internet, scientific journals, handbooks and national or international standards. As to ease of searching, the internet seems to score highest and standards lowest, with journals and books in between. But it may be argued that standards, in particular international ones, are the most reliable information source because of their lengthy and thorough process of information gathering and discussion, by many people with different backgrounds and interests, followed by an elaborate voting procedure. Therefore it could well be that an information seeker will be able to find most directions and/or methods on applying the data found in the context concerned in a standard. An extensive analysis and review of this process, and of the relation between standardization and specific data on the effects of age on vision, is published in the Proceedings of the SPIE Conferences in 2010[4]. From new knowledge published in academic journals, to deciding to incorporate this knowledge in international standards, generally takes a few years. Subsequently, from deciding to write an international standard to its publication, in principle takes another couple of years. ISO standards then remain in force for five years; after that period the participating member countries have to vote whether they want to keep the standard 'as is', or rather revise it. This process helps to guard the quality of the standard based on established scientific and technical knowledge.

References

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Address: Elandlaan 2, 5691GG Son, Netherlands; E: f.l.v.nes@tue.nl