

Iceland's language technology: policy versus practice

Amanda Hilmarsson-Dunn

University of Southampton

Ari Páll Kristinsson

*The Árni Magnússon Institute for Icelandic
Studies, Iceland*

Email: amhd@soton.ac.uk

Email: aripk@hi.is

Introduction

Iceland's language policies are purist and protectionist, aiming to maintain the grammatical system and basic vocabulary of Icelandic as it has been for a thousand years. Corpus planning plays a major role in keeping the language free of foreign (English) borrowings and inventing neologisms for new terms. Corpus planning is considered of great importance in the domain of information technology (IT). If Icelandic is not used within this domain, according to Rögnvaldsson (2005), then a part of the daily life of Icelanders will be in a foreign language, a situation 'without parallels earlier in the history of the language.'

In order to use Icelandic in the IT domain, there has been a major investment in language technology including the development of linguistic databases, translations of software and use of the special Icelandic characters in international standards and fonts. However, funding language technology is expensive and time consuming and some feel that, with a population conversant in English, the effort to constantly adapt and translate new technologies from English is not worthwhile.

This paper aims to examine Iceland's policies for language technology and investigate whether they can be maintained in practice.

Ideologies

Before examining Iceland's policy for IT, it is necessary to understand that policy is informed by the ideologies that Icelanders hold about their language. These ideologies are historically deep-rooted and hold great psychological importance to the community.

Iceland was settled by West Norwegians in 870 – 930 AD. The settlers took the language of the west Norwegians, Old Norse, with them, wrote down the history of the first settlements and established a great literary tradition. Icelandic literature reached its zenith in the thirteenth and fourteenth centuries, the 'Golden Age' and Icelandic writers and poets were highly sought after in the courts of Europe. A manuscript culture developed at this time, and flourished in Iceland long after the advent of printing technology. The ancient manuscripts were copied out by laymen, such as farmers, and the stories of the sagas read out to the extended families in the evenings after work on the farms. A love of literature became part of the culture. Manuscripts became the grassroots means of

distributing historical and literary knowledge up until the end of the 19th century because printed books were too expensive for the common man to buy (Ólafsson, 2001). Many professional people also collected and copied manuscripts, especially Árni Magnússon, whose collection, built up in the second half of the seventeenth century and the beginning of the eighteenth century, now bears his name. This collection of manuscripts forms the core of Icelandic national heritage.

Iceland was a colony of Denmark for over five hundred years, until 1944. One of the consequences of Danish domination over Iceland was the rise of linguistic nationalism, in the form of the pure language movement (*hreitungustefnan*) to purify the language and rid it of Danish influence. Linguistic purism in Iceland was a highly political issue in the nineteenth and twentieth centuries, and was characterised by keeping out foreign words and inventing neologisms. The act of creating neologisms also had the political role of signalling – and even exaggerating – the difference between Icelandic and Danish. Iceland based its identity, after emerging as a nation after hundreds of years of Danish rule, upon its language and literary tradition.

English started to take over from Danish after the invasion of Iceland by Britain in 1940 and the subsequent handing over to the Americans in 1941. These actions became an impetus to get rid of English words and the official reaction from the Icelandic Government was to give financial support, although on a small scale, to the creation of Icelandic neologisms, from the 1950s onwards.

Language policy

Icelandic, spoken by about 300,000 people, is the official language of the Republic of Iceland and is used in all aspects of daily life. Icelandic language policy has two main components: 1) the preservation of the language (of the system of grammar and the basic vocabulary) and 2) the development of the language (Ministry of Education, Science and Culture, 2001). Iceland's policy for IT reflects its language ideologies. The government's vision of the information society in Iceland is summed up in the two words: guidance and vigilance, that is, to guide information technology in a 'beneficial direction' by facilitating the use of Icelandic in as many fields as possible (guidance) and to stand guard over the Icelandic people's identity (vigilance) (The Icelandic Government, 2001).

Icelandic language policy deals with the two fundamental parts of language planning: corpus planning and status planning, which are interrelated. A language variety can not gain status in a particular society unless it is provided with forms of language which meet certain demands, that is, that the varieties in question have developed the vocabulary necessary for all the domains needed, and that there is a literary standard. The interrelation between corpus and status becomes clear when we realize that, as a certain

language variety gains more domains in society, there are more and more opportunities for it to have a positive influence on the forms of language, for example, by developing and promoting its literary standard further, and by increasing the amount of new vocabulary for more specialized fields, which may build on existing terminology in that language. The more vocabulary there is, the stronger the status of that language. Hence, there is a circle of enhancement at work here. Icelanders have been able to develop the necessary vocabularies in all basic domains of society, which in turn makes it easier for language developers to continue whenever they are faced with new technology or new ideas.

The Icelandic government launched a language technology project in 2001 to encourage the development of software and equipment enabling the use of Icelandic in computer equipment and computer-controlled devices. It was seen as crucial to create 1) common linguistic databases which companies could use as raw material for their products, 2) to invest in applied research in language technology, 3) give financial support for private companies developing language technology products, and finally 4) increase education and training in this field. Some progress has been made in all of these areas (Rögnvaldsson 2005).

One of the priority tasks in the language technology project was that general computer programmes in everyday use should be available in an Icelandic translation (Rögnvaldsson 2005), such as the Windows operating systems, the Microsoft Office package, e-mail programmes, and Internet browsers. In 1999 Microsoft agreed to translate their Windows98 operating system into Icelandic, after initially refusing to do so, because of the small size of the Icelandic market. This translation was ready in March 2000 but there were some technical bugs in it and it never became widely used. Furthermore, Microsoft was about to launch its Windows 2000 operating system, which, in fact, they never translated into Icelandic. In 2004 however, Windows XP, with Internet Explorer and Microsoft Office, came on the market in an Icelandic translation, and many people, schools, companies, use it now instead of the English version, or make use of both versions. In order to stimulate the use of Icelandic further, the Government has announced that preference will be given in public tenders for software localised for Icelandic (Ministry for Education, Science and Culture, 2005: 16).

It is important for language technology purposes that the characters of a script are part of international standards and fonts, for example, so that search engines can search for sites with those characters. Iceland made great efforts to have its special alphabetic characters incorporated into ISO-Latin 1 – the dominant character set. One of the more recent products of the language technology project is *Embla*, a search engine, which “‘knows” Icelandic” (Gíslason, 2005) and therefore is capable of searching for all the inflections. Search engines such as Google are limited

in terms of being able to search for Icelandic words with all their inflections.

Conflicts: ideologies versus practicalities

Despite support from government, the question of whether to continue to promote Icelandic versus English in information technology causes mixed feelings amongst Icelandic IT professionals. Some believe that it is absolutely essential that Icelandic be used in this domain, for ideological reasons, while others are uncertain that the effort is worthwhile, for practical reasons. These reasons include the cost, the difficulties of constantly translating and adapting new technologies, Iceland's small population, plus the fact that the population is quite able to cope with IT in English.

According to Rögnvaldsson (2005) the total budget for the language technology project which ended in 2004 was about one eighth of the estimated cost to make Icelandic Language Technology self-sustained. A major problem, he stresses, is that the small size of Iceland's population ‘is not enough to sustain costly development of new products.’ He emphasises that, although the project has been successful, it is important to continue with public support for it and ‘to utilize the knowledge and experience that researchers and companies have gained.’

As we can see, cost is a major issue. Hitherto Icelanders have always paid for goods in Icelandic, such as for books and newspapers. The price is very high precisely because they are in Icelandic and the market is small. Rögnvaldsson (2005) wonders however, ‘will individuals want to buy Icelandic technology products or cheaper English ones?’

People may be ready to pay a little more for language technology programs and tools in their own language, but if the difference is substantial, people will resort to the foreign almost always English products (Rögnvaldsson, 2005).

Because English started off as the language of programming, professionals in Iceland very often use English as they are more used to it, so that it is not necessary to use Icelandic. Furthermore, those who need to communicate with non-Icelanders will work in English as it is the language of international portability. It is also the case that, until recently, the Internet could not handle other scripts, the norms having been established in ASCII (American Standard Code for Information Interchange). As Unicode becomes a more widely used standard this is less and less of a problem.

The young generation have a good knowledge of English: they learn English as the first foreign language at school, and many know the language even before school begins through watching Anglo-American television programmes and films. As these young people are the next generation of policy makers, they may consider it unnecessary, too difficult and too

expensive to bother with developing language technology in Icelandic.

Even if a speech community has – like Iceland – the economic means, the necessary political will, the backing from an independent state government, the knowledge of language experts and technicians, the vocabulary created by enthusiastic voluntary language cultivators, etc., it is not always possible to compete against a global language. The average user can always expect to encounter English in the latest or “hottest” products, since it often takes some time for the producers or marketing agents to have a translation ready. The best that Icelanders can hope for is some sort of bilingualism in this domain.

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