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AN EMPIRICAL INVESTIGATION OF THE TERMINOLOGY PROFESSION IN CANADA IN THE 21ST CENTURY*

This article contains an investigation into the terminology profession in Canada in the 21st century. Terminologists themselves have their own opinion about the state of the profession, but the aim of this study is to investigate terminology from the perspective of those who employ terminologists by analyzing a corpus of job advertisements for a variety of terminology- and translation-related positions that were collected between January 2000 and June 2002. Spurred on by the effects of globalization, the language industry, including terminology, is in a period of change. Based on empirical evidence collected from the corpus, this article attempts to evaluate the current state of the profession in Canada and to determine what employers are looking for.

Keywords: **terminology profession, terminology in Canada, terminology in the 21st century, employer's perspective, corpus of job advertisements**

1. Introduction

As a distinct profession, terminology has been in existence for only a relatively short time as compared to related disciplines, such as lexicography or translation; however, the terminology profession has evolved during a period when the language industries as a whole are undergoing rapid change. According to Anobile (2000: vii), the language industry underwent major transformations in the 1990s, and it continues to do so today. Many of these changes have been brought about by the increase in globalized trade. More and more companies are realizing that in order to maximize profits, they must provide translated or localized products to foreign markets, and they must make these localized versions available as quickly as possible. Adding to the pressure is the fact that most companies also want to maintain multilingual web sites, in order to provide current and potential customers with information in their own language. This trend toward the near-simultaneous provision of multiple language versions of products and web sites is placing an increasing demand on language professionals to produce high quality documentation in extremely fast turn-around times (Bowker 2002: 13).

Whether in a monolingual or multilingual context, the production of high quality documentation depends heavily on the existence of good terminological resources. As pointed out by Hoft (1995: 192), O'Brien (1998: 117) and Corbolante and Irmler (2001: 530), in the localization industry, a good glossary is one of the most important starting points for a project, while Jaekel (2000: 171) notes that "terminology is now considered something of real value". Because terminology is credited by many researchers and practitioners as being an important part of the translation and localization professions, as well as an important discipline in its own right, I thought it would be interesting to examine

the terminology profession *as it is portrayed in a corpus of job advertisements*, which will reveal the attitudes and expectations held by employers, which may not be the same as those held by people within the terminology profession itself.

The focus of this article is on investigating the portrayal of terminology in Canada, which is the country where I was trained, and where I currently live and work. This study actually grew out of a larger project aimed at investigating the state of the broader translation job market in Canada; however, for the purpose of this article, I will focus primarily on those jobs involving terminology work. Terminology has a strong history in Canada. For instance, the creation of term banks such as TERMIUM and *Le grand dictionnaire terminologique* (formerly the *Banque de terminologie du Québec*), the standardization efforts such as those carried out by the *Office de la langue française*, the establishment of a Terminology and Standardization Directorate within the federal government, the publication of classic terminology manuals (e.g. Dubuc 1985 and Rondeau 1984), and the establishment of a recognized certification process for professional terminologists, are just a few of Canada's most notable terminology-related achievements. In the words of Williams (1994: 199), at the international level "Canada's expertise and know-how [in the discipline of terminology] are recognized." Although this type of recognition may well be bestowed on Canadian terminologists by others working within the profession, the present study attempts to investigate how Canadian employers view this discipline. Though certainly not the only perspective from which to view a discipline, the employer's perspective – which is often needs-driven rather than research-driven – is an important one that should not be ignored. After all, the needs of employers may have a direct impact on other areas of the profession, such as training and research.

This article will be divided into three main parts. Section 2 explains the design and compilation of the corpus of job advertisements, including the limitations of the corpus. Section 3 presents the data extracted from this corpus, as well as an analysis of this data. Finally, section 4 ends with some concluding remarks about the current state of, as well as potential future trends in, the terminology profession in Canada in the 21st century.

2. Corpus design and compilation

The corpus consists of a total of 308 advertisements for jobs in Canada collected between January 2000 and June 2002. In addition to jobs for dedicated terminologists (13), the corpus includes jobs for other professionals in the language industries who may be required to perform terminology-related tasks: translators (144), revisers (27), localization specialists (18), translation project managers (13), translation professors (10), interpreters (6), proofreaders (3), and technical writers (74). While the inclusion of jobs for technical writers may seem out of place at first glance because of the monolingual nature of this profession, these advertisements have been included because several Canadian translator training institutes[1] offer courses – and even complete programmes – in technical and professional writing, and a significant number of graduates from these institutes go on to work as technical writers.

The job advertisements were taken from four main sources:

1) Canadian newspapers: *The Globe and Mail*, *The Ottawa Citizen*, *The Toronto Star*, *The Montreal Gazette*, *Le Devoir* and *La Presse* (149 ads);
2) The job bulletin board at the School of Translation and Interpretation of the University of Ottawa (72 ads);

3) Advertisements distributed by the two largest Canadian professional translation associations: the Association of Translators and Interpreters of Ontario (ATIO) and the *Ordre des traducteurs, terminologues et interprètes agréés du Québec* (OTTIAQ) (50 ads);
4) Canadian online job sites: workopolis.com and monster.ca (37 ads).

The goal was to collect the ads in a database from which it would then be possible to extract corpora consisting of those ads meeting specified criteria (e.g. all jobs for terminologists working in the health domain in French and English). For this reason, wherever possible, the ads were collected in electronic form. When this was not possible, the ads were converted into digital form using one of two methods: ads that were in the form of a legible printout were converted using optical character recognition (OCR) software, while those that were not conducive to OCR (e.g. newsprint) were transcribed.

Some of the jobs were advertised in more than one source simultaneously (e.g. in two different newspapers, in a newspaper and on an online job site), and some jobs were advertised in both English and French. Every effort was made to avoid duplication of ads in the database, which meant that if a job was advertised in both English and French, or in more than one source, only the ad first encountered was added to the database.

Once the ads were converted into electronic form, they were indexed according to the criteria outlined in Table 1. This indexing was done using a controlled vocabulary drawn up specifically for this project, where each concept was represented by a single term. For example, the idea that might have been expressed in the jobs ads by various expressions such as “able to meet tight deadlines” or “able to work in a high pressure environment” was indexed using the controlled vocabulary term “work under pressure”.

Table 1. Indexing criteria used in the job ads database.

Indexing criteria	***Description***
Source	Where the job was advertised
Date	When the job was advertised
Job	The type of job (e.g. terminologist, translator, localization specialist)
Employer	The name of the company advertising the position
Location	The city and province where the job is located
Permanent (yes/no)	Whether the job is permanent or contract
Full-time (yes/no)	Whether the job is full-time or part-time
Professional association (yes/no)	Whether it is a requirement/asset for the candidate to be a certified member of a professional association (e.g. ATIO)
Examination (yes/no)	Whether the candidate is required to take an examination as part of the hiring process
Language(s)	The language or language combination
Domain	The subject field
Qualifications	Formal qualifications (e.g. degree, years of experience) that the candidate must have
Required skills	Specific skills required to do the job (e.g. computer skills, domain knowledge)
Other keywords	Other keywords relevant to the ad

Figure 1 illustrates how the job ads and indexing information are stored in the database, while Figure 2 shows the results of a search performed using a combination of indexing criteria. All ads meeting the search criteria can then be exported as a corpus in plain text format and can be further processed using other software such as corpus analysis tools (e.g. WordSmith Tools, MonoConc Pro).

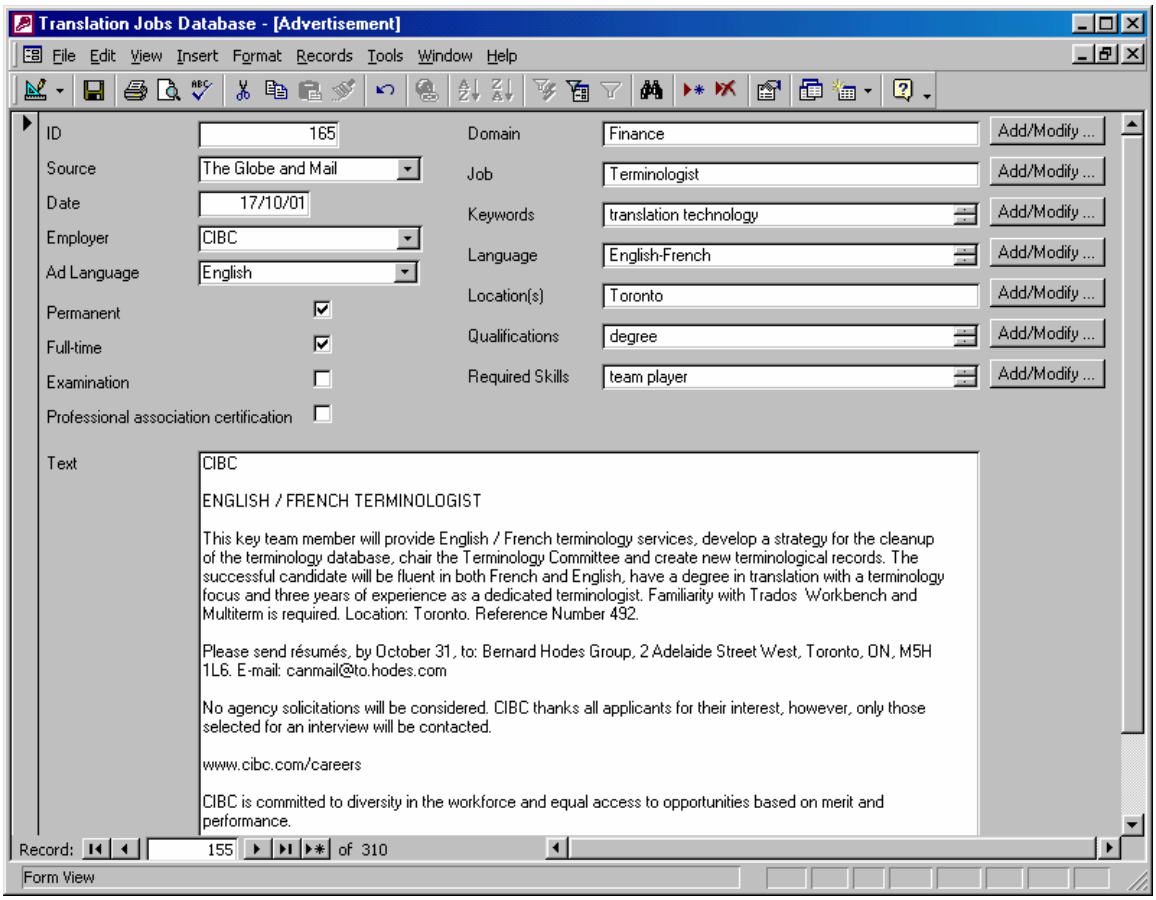

Figure 1. A sample entry from the database of job ads.

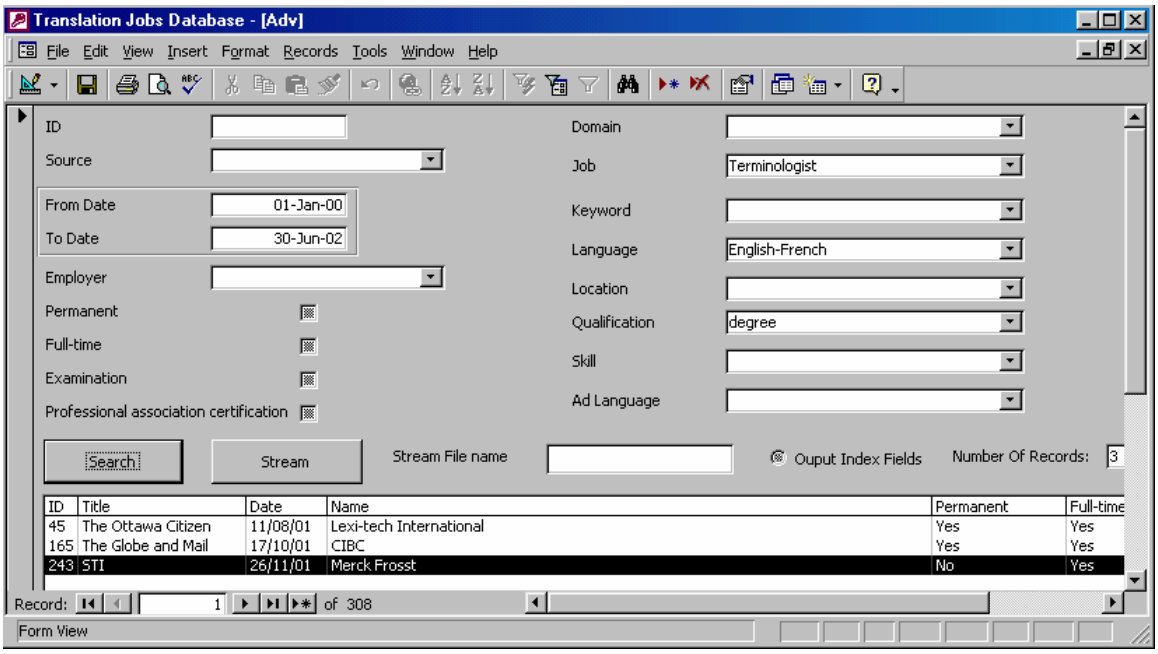

Figure 2. The results of a search in the database of job ads.

2.1 Limitations of the corpus

The corpus has a number of limitations that must be kept in mind when interpreting the data. Nevertheless, as pointed out by Atkins *et al.* (1992: 6), even an imperfect corpus can be a source of useful information, as long as one is aware of its shortcomings.

The first limitation of the corpus is that it does not provide comprehensive coverage of the Canadian job market. The corpus is somewhat focused on jobs in Ontario and Quebec, and particularly in the National Capital Region (Ottawa-Gatineau[2]). The reason for this was largely pragmatic. Collecting advertisements was a labour-intensive process, and since I am based at the University of Ottawa, it was easier for me to access information such as the job board at the university, and the professional associations of Ontario and Quebec. This is not to say, however, that no other regions of Canada are represented in the corpus – for example, *The Globe and Mail* is a national newspaper, and the online job sites provide national coverage – but the corpus is not perfectly balanced.

Another limitation of the corpus is that it can only provide information about jobs that have been advertised. This means that positions that exist but have not had a turnover in personnel are not represented. In addition, jobs that are not advertised, such as freelance contracts where clients communicate directly with candidates, or jobs filled through competitions, such as those held by the Government of Canada's Translation Bureau, are not represented in the corpus.

Additionally, even though a position has been advertised, it is not possible to tell whether the position is a newly created position or a replacement position, which means that the corpus cannot be used to determine whether the overall number of jobs for terminologists in Canada is increasing or decreasing.

Finally, even though an advertisement lists desired skills, it is not possible to tell whether the successful candidate actually met these criteria. It may be the case, for instance, that the company in question was willing to settle for a candidate with lesser qualifications, or the company may have been fortunate enough to hire a candidate who

surpassed the minimum advertised qualifications. It may even happen that the position was not filled at all.

3. Data and discussion

In spite of the limitations of the corpus outlined in the preceding section, it can still provide some interesting insights into the current state of the terminology profession, as well as the types of skills and qualifications that are in demand by employers. The following sections will present and discuss data from the corpus under the following headings: number and types of jobs, languages, geographic locations, domains, qualifications, required skills, duties, and employment conditions.

3.1 Number and types of jobs

As previously mentioned, the total number of job ads in the database is 308. Of these, only 13 are for dedicated terminologists, which equals only 4.2% of the total number of translation-related jobs that were advertised. However, in Canada, terminology work is often closely connected with other tasks, and the corpus contained an additional 53 ads (17.2%) that indicated that some type of terminology work would be required as part of the overall job description. Table 2 provides a breakdown of the ads for positions requiring some degree of terminology work.

Table 2. Summary of ads for positions requiring some terminology-related work.

Job type	**Number of ads in corpus (308)**	**Percentage**
terminologist	13	4.2 %
translator	44	14.3 %
translation manager	3	0.97%
localization specialist	2	0.65%
reviser	2	0.65%
technical writer	1	0.32%
professor	1	0.32%
Total	**66 / 308**	**21.41%**

Sprung (2000: xix) indicates that “terminology is blossoming as its own discipline”, and Jaekel (2000: 171) similarly observes that “terminology is gaining visibility as a discipline in its own right”; however, these statements do not seem to be supported by the data from the corpus, where a mere 4.2% of the jobs are for dedicated terminologists. The relatively low number of positions advertised for terminologists is even more surprising if one considers that a report produced by the Canadian Translation Industry Sectoral Committee (CTISC 1999: 18) notes that in Canada, there is currently a critical shortage of language professionals. This observation is echoed by Anobile (2000: vii), who says that the language industry as a whole is experiencing a severe shortage of talented professionals who can meet the demand for providing high-quality documentation. In the face of such a proclaimed shortage, one might expect there to be a high number of job ads for terminologists; however, there may be some other factors that can help to explain the relatively small number that appeared in the corpus.

For instance, according to Williams (1994: 197) and also to the web site of the Association of Translators and Interpreters of Ontario (ATIO) – a professional association that also provides certification for professional terminologists – the majority of practicing terminologists in Canada are employed by federal or provincial government departments. Since the government normally fills such positions through competitions, rather than through advertisements, this may provide one explanation for the low number of ads for terminologists in the corpus. In addition, the *Ordre des traducteurs, terminologues et interprètes agréés du Québec (OTTIAQ)* – another professional association that certifies terminologists – indicates that an increasing number of terminologists are working as freelancers, which means they may gain employment through referrals or direct contact with clients rather than through advertisements.

Furthermore, though there are some claims that terminology is beginning to establish itself as its own discipline, it would seem that many employers still associate it strongly with other types of jobs, such as translation. For instance, Williams (1994: 195) writing about the terminology industry in Canada, notes "terminology and translation have always been closely connected". This is consistent with the situation reported by language professionals outside of Canada also. Jaekel (2000: 162), for example, notes that "none of those involved in terminology projects at Ericsson Language Services [Sweden] were terminologists, either by training or previous experience." Instead, as Jaekel (2000: 163-4) goes on to point out, the terminology group consisted of a manager, a database administrator and a number of translators, and these translators were each expected to devote four hours per week to terminological research. Similarly, in a description of the Reference and Terminology Unit (RTU) at the Paris-based offices of the Organization for Economic Cooperation and Development, Joscelyne (2000: 91) relates that "RTU members are not terminologists in the strict sense of the word. A certain amount of terminology management (the extraction, maintenance, and access to terms) is integrated into the overall workload of the translator." Likewise, Hofmann and Mehnert (2000: 74) observe that at Schneider Automation in Germany, translators are expected to participate in terminology work. Looking back to the corpus, the fact that there are few ads for dedicated terminologists could be a reflection of the fact that many employers expect translators to conduct their own terminological research. As indicated in Table 2, an additional 53 ads, including 44 for translators, specified that candidates would be expected to carry out some degree of terminology-related work in addition to their other duties.

What is extremely surprising, however, is the fact that the corpus contains only 18 jobs ads for localization specialists, and of these, only two specify that terminology work is required. As previously noted in section 1, the localization industry as a whole is currently booming, and terminology plays an extremely important role in this industry. This makes the small number of ads in this area striking. It is interesting to note, however, that this data supports an observation made by Damiani (2002: 256), who states that Canada is lagging behind other parts of the world when it comes to localization. Similarly, the Canadian Translation Industry Sectoral Committee (CTISC 1999: 39) points out that "No translation firm based in Canada offers a full-fledged localization service, and for this reason most of the software companies in Canada turn to foreign firms to have their products localized." It would seem that in the three years since the CTISC report was published, this situation has not changed to any great degree[3]; however, it may change in the near future since at least three Canadian universities, all located in the province of

Quebec, have very recently begun to offer post-graduate training programs in localization[4]. Once these programs begin graduating qualified localization professionals, it is conceivable that more localization services – which will include jobs in terminology research and management – will be based in Canada.

Another puzzling observation is that out of a total of 74 job ads for technical writers, only a single ad indicated that terminology work would be required. As pointed out by Williams (1994: 196, 199), Wettengel and Van de Weyer (2001: 445), Champe (2001: 503) and Warburton (2001: 680), terminology also plays a very important role in monolingual communication, such as technical writing, yet it would seem that employers do not see the need to advertise for technical writers who have terminology research skills. This may indicate that, in Canada, employers see terminology almost exclusively as a bilingual activity.

With a total of only 66 out of 308 (21.41%) of the jobs in the entire corpus indicating that at least some amount of terminology work is required, we must also consider a number of additional explanations. Looking at the remaining ads, it must first be noted that 52 (16.8%) of these were extremely minimalist, and did not really list anything in the way of a job description or desirable skills. Table 3 provides some examples of this type of ad.

Table 3. Examples of ads giving no real job description.

BMB is seeking a self-motivated individual to work as a Technical Writer. Please forward your resume by fax (613) 241-2319 or email to hr@bmb.ca by January 29, 2001. Attention HR Manager. We thank all applicants for their interest; only those selected for an interview will be contacted.
The Masha Krupp Translation Group Ltd. (MKTG) has job openings for experienced English-into-French translators. MKTG is an Ottawa-based translation firm which was founded in 1992 and is now one of Ottawa-Hull's largest translation firms, with more than 50 full-time staff. Excellent remuneration commensurate with experience and abilities. Fax or e-mail c.v. in confidence to: FAX: (613) 256-4737; E-MAIL: brian@mashakrupp.com
Get the whole picture ... Developing a tiny digital camera module for intelligent imaging applications is only part of the picture. Your input completes it. Do you see yourself in the following position: Technical Writer (contract position) Contact: hr@symagery 3026 Solandt Road, Kanata, Ontario K2K 2A5 Tel: 613-592-2592 Fax: 613-592-6778

Of the 190 other ads that did provide a job description, but did not include terminology-related work as part of this description, we must consider three other possibilities. First, it is possible that the candidate will not be required to carry out any significant terminology work as part of the job. Second, it could be the case that the person who composed the ad did not fully understand the requirements of the job and did not therefore list terminology work as an important component. Third, an employer may consider terminology to be such an integral part of the job that it is considered to be 'understood' that the candidate will carry out terminological duties. For example, many of the ads for translation positions did not specifically state that a candidate must have a command of the source and target languages, though clearly it is not possible to produce a translation in the absence of such knowledge. In some cases, employers may have felt that, like linguistic competence, the ability to do terminological research is such an essential skill for a translator to have that there was no need to mention it[5]. While all of these explanations

are viable, there is no way of knowing which, if any, are applicable to any given ad in the corpus.

3.2 Languages

Canada is a bilingual country, with both English and French enjoying official-language status. It would not, therefore, be surprising to find that a majority of the terminology-related jobs advertised dealt with one or both of these languages. Nevertheless, in this era of globalization, one might also expect that a number of other languages would be represented. In the case of the 13 ads for dedicated terminologists, each of the jobs involved working solely with English and French. As for the other 53 ads that required some degree of terminology work, 51 of these involved working solely with one or both of Canada's official languages. Only 2 job ads specified that terminology work would need to be carried out in other languages: one was an ad for a localization specialist whose duties would include terminology validation and terminology management in English and Brazilian Portuguese, and the second was an ad for a translator who would also be required to develop a bilingual glossary in English and Japanese.

In this day and age, the degree to which the terminology market in Canada is limited to English and French is startling; however, the corpus data is consistent with an observation made by Shadbolt (2002: 30) that, in Canada, work in languages other than English and French accounts for only a very small share of the total market demand. The corpus data also supports a number of criticisms made by the Canadian Translation Industry Sectoral Committee (CTISC 1999: 70-72), including the fact that "the Canadian industry lacks diversification in the translation of languages other than French and English" and "the Canadian industry registers low on the export market". As pointed out in section 3.1, Canada also has little presence in the field of localization, which means that terminology and translation work in languages other than English and French is typically contracted out to foreign firms. The Canadian Translation Industry Sectoral Committee (CTISC 1999: 73) recommends that the Canadian industry should make a serious effort to position itself strongly as a manager of multilingual translation and interpretation projects, noting that if it does not, it will run the risk of becoming a secondary player working for foreign firms. This echoes a prediction made by Williams (1994: 201), who, in discussing the future of terminology in Canada, noted that "because of economic globalization, it will become important to develop multilingual terminological databases". However, based on the corpus evidence, it would appear that the Canadian industry is still focused almost exclusively on the domestic market.

We must, however, keep in mind the possibility that, while Canadian companies may not employ full-time terminologists or translators to work in non-official languages, they may hire such professionals on a freelance basis.

3.3 Geographic locations

Given that most of the terminology work in Canada deals with English and French, it is not unexpected to find that the data in the corpus indicate that the vast majority of terminology-related jobs are located in the provinces of Ontario and Quebec, and particularly in the National Capital Region (Ottawa-Gatineau), as shown in Table 4. Ontario and Quebec are the two most densely populated and industrialized provinces in Canada, and they are home to two of the nation's largest cities – Toronto and Montreal respectively. In

addition, the predominantly English-speaking Ontario and the predominantly French-speaking Quebec share a border on which sits the nation's capital. The noted concentration of jobs in Ontario and Quebec is in line with the observations made by both Shadbolt (2002: 32) and the Canadian Translation Industry Sectoral Committee (CTISC 1999: 21), which indicate that more than 80% of Canada's terminology, translation and interpretation work is carried out in these provinces.

Table 4. Geographic location of terminology-related jobs.

Location of job	**No. of ads**
National Capital Region	37
Ontario	15 (including 12 in Toronto)
Quebec	11 (including 7 in Montreal)
Elsewhere in Canada	3

One somewhat surprising observation, however, is the fact that only a single ad was for terminology work in the province of New Brunswick, which is Canada's only officially bilingual province[6]. Possible explanations for this include the fact that much of the terminology work required in New Brunswick is done for the provincial government, which typically hires through competitions. In addition, as mentioned in section 3.1, the corpus is not perfectly balanced and contains a high proportion of ads from sources in Ontario and Quebec, which may explain why so few of the ads were for jobs elsewhere in Canada. Even so, the fact that only 1 of the 8 New Brunswick-based positions in the corpus was for a terminology-related job remains noteworthy.

3.4 Domains

In terms of the domains in which terminology work is required in Canada, this data is summarized in Table 5. According to the corpus, the domains that are most in demand include health, finance, hi-tech and business-related fields. This seems entirely reasonable, and the data from the corpus overlaps considerably with those domains identified by the Canadian Translation Industry Sectoral Committee (CTISC 1999: 37) as being growth areas for the language professions.

Table 5. Domains in which terminology work is in demand. Note that in some cases, a single ad indicated that work would be carried out in more than one domain.

Domains identified in the corpus of job ads		**Domains identified by CTISC as growth areas**
Health (20)	Unspecified (3)	Aerospace
Finance (19)	Labour relations (2)	Transportation
Hi-tech (14)	Arts (1)	Business services
Business (11)	Construction (1)	Pharmaceuticals
Marketing (9)	Defence (1)	Telecommunications
Aviation (7)	International development (1)	Finance
Law (5)	Media (1)	Information Technology
Education (3)	Tourism (1)	International organizations
Environment (3)	Transportation (1)	
Government (3)		

Like many other countries, Canada has an aging population, so it is not surprising to see that there is a lot of work required in the health-care domain. Similarly, as a developed country with an interest in technology and commerce, Canada has a clear need for terminology work in fields related to various areas of hi-tech and business. One domain that does seem to be under-represented in the corpus is that of government-related work; however, as noted previously, this may be explained by the fact that the government normally tends to hire language professionals through organized competitions, rather than through advertisements.

3.5 Qualifications

In Canada, there are no training programs designed to award a qualification, such as a degree or certificate, specifically in terminology. Instead, all formalized training in terminology is conducted as part of a translator training program[7]. According to the Canadian Translation Industry Sectoral Committee (CTISC 1999: 17) language professionals in Canada have a high level of education, with 81% of the professionals holding at least a Bachelor's degree, and 26% of these a Master's degree. The data in the corpus seems to indicate that employers recognize – and in fact demand – this level of education as 75.7% (50/66) of terminology-related jobs ads specified that candidates should hold a degree, and 50% (25/50) of these stated that it should be a degree in translation, while 8% (4/50) indicated that a degree in linguistics was desirable. Only 2 ads stated that candidates holding a certificate or diploma, rather than a degree, would be considered.

In addition, 75.7% (50/66) of the ads also required the candidate to have some previous experience. As outlined in Table 6, there were 19 ads that wanted a candidate who was "experienced" but did not specify precisely how much experience was required, while of the ads that did specify, the most commonly requested amount of experience was 2 years (16/50 or 32%), and the highest amount of experience requested was 8 years (2/50 or 4%).

Table 6. Number of years of experience desired by employers.

No. of years of experience required	**No. of ads**
1 year	1
2 years	16
3 years	5
4 years	1
5 years	5
6 years	0
7 years	1
8 years	2
Unspecified amount of experience	19

The data from the corpus does not fully support the findings of the Canadian Translation Industry Sectoral Committee (CTISC 1999: 79), which indicated that most employers prefer to hire language professionals with 3-4 years experience. Moreover, the Com-

mittee went on to criticize the fact that few employers are willing to hire new university graduates or to offer them internships or other training opportunities because it takes too long to train new graduates to meet their clients' pressing needs. However, the corpus data reveal that the employers in question aimed 8 of the 66 terminology-related jobs specifically at students (for internships or work placements), and an additional 3 jobs specifically at recent graduates (junior positions requiring a degree but no prior experience). This represents 16.6% of the total number of terminology-related jobs, which though not overly generous, seems at least to be reasonable. Furthermore, we should remember that, even though an employer may have advertised for a candidate who ideally has at least 2 years of experience, the corpus cannot tell us the qualifications of the person who was eventually hired. It is entirely possible that the employer decided to fill the position with someone who had less than the sought-after amount of experience.

In addition to qualifications such as a degree or previous experience, 5 of the 66 (7.5%) ads indicated that the candidate would be required to take a company-set exam as part of, or prior to, the interview.

Moreover, 11 of the 66 (16.6%) employers indicated that applicants should be certified by a recognized professional association[8]. Unlike a number of other countries[9], Canada does not have a professional association dedicated specifically to terminology. However, as pointed out by Williams (1994: 196), terminology is now officially recognized as a profession by a number of provincial associations such as the *Ordre des traducteurs, terminologues et interprètes du Québec* (OTTIAQ), the Corporation of Translators, Terminologists and Interpreters of New Brunswick (CTINB) and the Association of Translators and Interpreters of Ontario (ATIO). These provincial organizations belong to the Canadian Translators and Interpreters Council (CTIC), which is in turn a member of the International Federation of Translators (FIT). This arrangement, whereby terminologists, translators and interpreters belong to a common professional association, may be accounted for by the strong historical links between these disciplines in Canada, as previously outlined.

With regard to professional certification, the Canadian Translation Industry Sectoral Committee (CTISC 1999: 12) states that "clients know little of the Canadian translation industry [...] Moreover, the professional status of certified translators is not widely valued." At first glance, this would seem to be true of terminology also, since only 16.6% of the terminology-related ads requested that a candidate be certified by a professional association; however, an investigation of the online membership directories of these associations, which list the number of certified members, reveals that there are relatively few certified terminologists[10] in Canada. OTTIAQ lists a total of 69 certified terminologists, ATIO lists only 8, while CTINB lists zero. With a grand total of just 77 certified terminologists in the whole of Canada, perhaps it is not so surprising that relatively few employers look for such a qualification. If terminologists and others in the language industries want to gain increased professional recognition from employers, a good starting point might be to obtain professional status as recognized within the discipline. In the foreword to "Survey of the Canadian Translation Industry", the co-chairs of the Canadian Translation Industry Sectoral Committee state "Having fought hard for professional recognition, translators, terminologists and interpreters must now see themselves – and promote themselves – as an industry." To achieve this, the professional associations must work harder to raise their profile and to educate both potential members and employers

about the benefits to be gained by hiring employees who have certified professional status. It would appear that associations themselves are beginning to recognize this need; in a recent edition of the ATIO newsletter, the Chair of the Public Relations Committee outlined ATIO's plans to increase awareness – both within and outside the language industries – of the importance and value of professional certification (Cadieux 2001: 1-2). Once a critical mass of language professionals hold such qualifications, it is hoped that professional recognition from outside the discipline will follow. In the meantime, however, it seems somewhat unfair to criticize employers for undervaluing the status of certified language professionals such as terminologists when relatively few of these professionals seem to put stock in it themselves.

3.6 Required skills

In addition to formal qualifications, employers also expect candidates to bring a range of skills to the job. According to the ads in the corpus, the ten most sought-after skills for those working in terminology-related jobs are those summarized in Table 7.

Table 7. The ten most sought-after skills listed in job ads.

Skills	***No. of ads***	***%***
Computer skills	48	72.7%
Research skills	34	51.5%
Team player	31	46.9%
Domain knowledge	30	45.4%
Organizational skills	27	40.9%
Fluent written communication skills	27	40.9%
Work under pressure	26	39.3%
Independent worker	18	27.2%
Attention to detail	15	22.7%
Interpersonal skills	14	21.2%

Williams (1994: 200) alluded to the rising importance of technology in the discipline of terminology, while Pavel and Nolet (2001: xx) point out that although any terminological activity *can* be performed manually, computerization allows unprecedented improvements in productivity, quality and accessibility. It would seem that employers recognize this too since the most frequently listed skill in the job ads is familiarity with computers. A number of ads simply requested candidates to be comfortable with computer use in general (7); others specified that familiarity with word processing software or other general desktop applications (e.g. PowerPoint, Excel, Outlook, QuarkExpress) was a pre-requisite (38); still others required candidates to be able to use the Internet or World Wide Web as a terminology research tool (18); and a number specified that familiarity with resources such as TERMIUM or *Le grand dictionnaire terminologique* was required (10). More interesting, however, was the fact that 20 of the 66 ads (30.3%) expressly stated that knowledge of specialized terminological software was required. For instance, 7 of the ads indicated that familiarity with "terminotics", "terminology software" or "state-of-the-art tools" was essential, while an additional 13 specified particular tools, including LogiTerm, MultiTerm, MTX, MultiTrans, Trados, and an in-house terminology management tool. In addition, 14 of the ads specified that candidates would be expected

to help maintain an in-house term bank. These corpus-based findings are in line with the Canadian Translation Industry Sectoral Committee's (CTISC 1999: 52) observation that "the industry expects its professionals to be at ease in using translation-related technologies."

The ability to be a team player (46.9%) was recognized as another highly desirable quality, which is not too surprising since terminologists already have an established history of working with others (e.g. domain experts). Moreover, as noted by Bowker (2002: 129) and by the Canadian Translation Industry Sectoral Committee (CTISC 1999: 1), there is an increasing trend in the language industry to treat the various elements of document production (including tasks such as terminology research, authoring, editing, and translation) as links in a chain, rather than as a series of independent and sequential tasks. In this type of integrated model, it is essential that terminologists work closely with other members of the document production team, and this may also explain why interpersonal skills (21.2%) represent another asset that is valued by employers.

As well as attracting team players, however, employers also want to hire candidates who are able to work independently (27.2%). These two qualities are not mutually exclusive. An independent worker is one who does not need to be closely supervised every step of the way, which frees up the supervisor's time, allowing him or her to work on other tasks. The demand for fast-turnaround times also explains why the ability to work under pressure (39.3%) is frequently listed as a requirement. In addition, it helps to account for the employers' desire to hire terminologists who already have a considerable amount of domain knowledge (45.4%). As noted in section 3.5, terminology training in Canada is generally carried out as part of a translator training program, which means that terminologists do not normally receive any formalized training in a particular specialized domain (e.g. medicine, law, engineering); however, many terminologists do acquire a domain specialization over the course of their careers. It stands to reason that someone who has already worked in a given domain for a number of years will be able to work more quickly than someone who is new to a domain.

Finally, competency with regard to research skills (51.5%), organizational skills (40.9%), fluent written communication skills (40.9%), and attention to detail (22.7%) are essential for any kind of high-quality terminology-oriented task, which shows that employers' perceptions are accurate when it comes to identifying desirable skills for terminology-related positions.

3.7 Duties

With regard to duties that candidates for the advertised positions would be expected to carry out, the most common terminology-related task was performing terminological research, which figured in 38 out of 66 ads (57.5%). In addition, 14 of the 66 (21.2%) employers were seeking candidates who would be charged with the maintenance of in-house term banks, while another 14 (21.2%) of the ads indicated that candidates would be expected to perform tasks relating to standardization.

3.8 Employment conditions

With regard to employment conditions, an investigation of the corpus data revealed that out of the 66 terminology-related jobs advertised, 40 (60.6%) are for permanent positions, and 63 (95.4%) are for full-time positions. However, when interpreting this data, it is

very important to keep in mind that much of the work that is available in the language industries is offered on a freelance basis, which means that it is likely to be neither full-time nor permanent. This should not necessarily be viewed in a negative light since many language professionals value the flexibility that comes with freelance work. However, freelance work is not well represented in the corpus, which may help to explain the discrepancy between the figures in the corpus, and those stemming from the 1995 census data gathered by Statistics Canada, which indicate that only 42.6% of workers in the language industry worked in full-time positions (CTISC 1999: 7).

With regard to salary, 47 of the 66 ads do not discuss this. Of the remaining 19 ads, 6 claim to offer a "competitive" salary, while 13 actually specify a figure (in Canadian dollars). Of these 13, the lowest annual salary offered was $34,543, while the highest was $62,825. In fact, 12 of the 13 ads gave a salary range, indicating that the actual annual salary offered would depend on the candidate's experience. Using the figures from the mid-point of each of the salary ranges, we can calculate that $47,919 is the median annual salary offered, while the mean or average annual salary would be $47,704.

The data gathered by Statistics Canada for the 1995 census indicated that the average annual income for a language professional in Canada was $40,570, which represented a drop from the 1990 average income of $42,100 (CTISC 1999: 8). This means that, based on the ads in the corpus, the average income for language professionals in Canada in the 21st century appears to be on the rise, which makes sense if one accepts that such professionals are currently in demand.

4. Concluding remarks

Though limited in a number of ways, the corpus of job ads still provides a means of gaining some insight into the current state of the terminology profession in Canada, particularly as viewed from an employer's perspective. It reveals, for example, what types of qualifications and skills employers expect candidates to have, what types of duties they expect terminologists to perform, in what languages and domains they are needed, and what type of compensation they can expect to receive for their efforts. This type of corpus also provides a body of empirical data that can go some way towards supporting or refuting a number of claims that have been made about the profession. In this final section, I will summarize some of the main characteristics of the terminology profession in Canada in the 21st century as portrayed through the corpus of job advertisements, and I will comment on some possible future trends.

In 1994, Williams (1994: 199) wrote an article entitled "Terminology in Canada" in which he makes the following claim: "Initially considered only as a tool for translators, terminology in Canada has established its pedigree and is now a full-fledged discipline…". When considered alongside the data from the corpus, this claim does not appear to stand up to scrutiny. The corpus data would seem to indicate that eight years later, terminology still has very strong ties to translation and does not yet appear to be all that well established as an independent discipline in Canada – at least not in the private sector. Instead, terminology-related work in Canada seems to be following the general global trend noted by Fulford (2001: 260), who states that rather than being undertaken by dedicated terminologists, "terminology management today is often undertaken by translator-terminologists".

Williams (1994: 199) also claims that terminology is playing an increasingly important role in other disciplines in Canada, including technical writing. Once again, however, the corpus data does not seem to bear this out. Instead, it appears to indicate that terminology plays an exceedingly small role in technical writing, which may be seen to provide additional confirmation that Canadian employers seem to perceive terminology as an almost exclusively bilingual activity that is closely associated with translation.

It is difficult to know for certain why terminology does not appear to be flourishing as either an independent discipline or as a monolingual discipline in Canada. Clearly the limitations of the corpus may offer a partial explanation since some types of positions (e.g. freelance, government employees) are not well represented. However, another possible explanation may be linked to the public perception of this discipline. As noted by Wright and Budin (2001: 873), terminology work is often "hidden" and employers may not be aware of either the benefits to be gained by implementing a terminology management strategy or of the potential financial losses that can be incurred without such a strategy (e.g. lost business, wasted time, miscommunications). Since the need to address terminology-related issues is more obvious in a multilingual context, translation companies have learned about the importance of managing terminology effectively. Meanwhile, the terminology-related issues in a monolingual context (e.g. technical writing, or other disciplines such as information science) may be less immediately striking – though certainly no less significant. Because such employers may be initially unaware of the importance of terminology work, it may fall between the cracks. It seems that language professionals themselves are beginning to realize the importance of educating the public – including potential employers – about the value of terminology management. Professional associations have recently begun to work harder to raise the profile of the profession and to convince employers of the benefits to be gained by implementing sound terminology management strategies and by hiring language professionals to carry them out (Cadieux 2001). If these campaigns are successful, we may see more job advertisements in the coming years that call for certified professional terminologists to work on monolingual as well as multilingual projects.

Although Canadian employers may not yet be aware of the full extent of the advantages that good terminology management practices can bring to their companies, they do at least appear to realize that terminology-related work cannot be done by just anyone off the street who has no prior training. This is demonstrated by the fact that employers do seem to prefer hiring candidates who have a university degree (usually in translation), coupled with two or more years of experience, and once hired these candidates are fairly compensated. These factors could be seen as evidence that the public education campaign is beginning to have an effect on employers, and hopefully, as efforts to raise awareness about the importance of the profession continue, employers will become even more attuned to the benefits they stand to gain by adopting well-designed terminology management structures.

Those employers who do advertise for terminology-related positions in Canada also seem to be relatively in tune with the skill set required to work as a terminologist in the 21st century. Computer skills – both general and specialized – are now considered essential; however, it is also reassuring to note that employers do not appear to be under the false impression that computers will replace terminologists, or that computer skills are all that is required to do the job. Rather, important skills that are fundamental to producing

high-quality documentation, such as research skills, organizational skills, attention to detail and fluent writing skills, still feature frequently in the job ads. Furthermore, new attitudes towards the document production process, where terminology is seen as a link in the document production chain, rather than as an isolated component, can be seen in the emphasis that is being placed on the need to hire team players who have good interpersonal skills. Nevertheless, the pressures being brought to bear on employers by the need to participate in the global market are clearly filtering down to terminologists, as seen by the requests for candidates who can work under pressure, who can work independently, who have domain knowledge, and who can use computer tools to help increase productivity.

The changing global marketplace also seems to be responsible for bringing the language industries in Canada to the brink of three other important changes. Firstly, Canada seems to be taking steps to break into the localization business as is evidenced by the recent establishment of a number of localization training programs. Over the next few years, these programs will begin to turn out graduates who are qualified localization professionals and who will be in a good position to help Canadian businesses to establish a presence in the increasingly multilingual global marketplace. A greater presence in the global market and the localization industry will also have an effect on the actual languages that are part of Canada's language industries. While there will undoubtedly still be a significant need for terminology-related work in Canada's two official languages, the coming years promise to show an increase in demand for a range of other languages that are sought after on the global market. Finally, as the range of languages expands, the geographic location of the jobs in Canada may also shift. While jobs focusing on French and English may still be concentrated in the provinces of Ontario and Quebec, jobs requiring other languages may be dispersed elsewhere in the country. For example, there is a significant Asian population in the province of British Columbia, so the coming years may see an increase in terminology-related jobs in languages such as Chinese, Japanese or Korean being located on the western coast.

In summary, while some of the distinguishing features of the terminology profession in Canada seem to have been carried over from the 20th century (e.g. the close ties between terminology and translation), there is also evidence to suggest that this profession is poised to make a number of changes, such as introducing a wider range of languages and increasing efforts to educate employers about what the profession has to offer. All in all, it is an exciting time for Canadians who are involved in the evolving discipline of terminology.

NOTES

[1] For example, the University of Ottawa's School of Translation and Interpretation offers two courses entitled "Writing Techniques for Translators and Professional Writers (I & II)", as well as a complete BA in Bilingual Professional Writing; York University's School of Translation and Interpretation offers courses entitled "Problems in Professional Writing" and "Techniques in Business and Professional Writing", as well as a certificate in Technical and Professional Writing; the Université du Québec en Outaouais (formerly known as the Université du Québec à Hull) offers a Baccalauréat en traduction et en

rédaction, which includes courses such as “Méthodologie de la rédaction (I & II)” and “Rédaction spécialisée”.

[2] The National Capital Region sits on the border of the provinces of Ontario and Quebec, separated by a river. On the Ontario side of the river is the city of Ottawa, and on the Quebec side is the city of Gatineau (formerly called Hull until 2002, when it amalgamated with some of the surrounding towns and changed its name). Ottawa and Gatineau are collectively known as the National Capital Region, which is the site of the Federal Government of Canada.

[3] One notable change is that the Government of Canada Translation Bureau has recently established a Localization and Multimedia Unit; however, since jobs for the government are typically filled through competitions, rather than through advertisements, these jobs are not reflected in the database used for this study.

[4] The Université du Québec en Outaouais (formerly known as the Université du Québec à Hull) was the first to offer such a program beginning in the 2001/2002 academic year with a “Diplôme d’études supérieures spécialisées en localisation” (Locke 2002). Beginning in the 2002/2003 academic year, Concordia University will offer a “Certificat de deuxième cycle en localisation” and the Université de Montréal will offer a post-graduate “microprogramme en localisation” and a “certificat en localisation” (Damiani 2002).

[5] Carliner (2000), in a discussion of the technical writing industry, likens this type of essential skill to “hygeine”. He points out that while a technical writer assumes that good writing is the primary skill needed for the job, “employers view writing as ‘hygiene.’ That is, they assume that we can write, just as they assume we shower before we arrive at work. They only notice the absence of good writing skills, not the presence.”

[6] Canada has two main levels of government: federal and provincial/territorial. Since Canada is an officially bilingual country, this means that all services run by the federal government (e.g. postal service, national courts) must be offered in both official languages. However, of the thirteen provinces/territories only New Brunswick is officially bilingual, which means that it must also offer provincial government services (e.g. health services, provincial courts, department of motor vehicles) in both English and French.

[7] There are a number of universities in Canada that offer terminology training as part of a degree program in translation, including the University of Ottawa, Université du Québec en Outaouais (formerly known as Université du Québec à Hull), Université de Montréal, Université de Moncton, Concordia University and Laurentian University, among others.

[8] The process for certification differs slightly from association to association, but the requirements generally consist of having a degree in translation in addition to successful completion of an exam or a number of years of documented professional work experience.

[9] The following countries, for example, have professional associations dedicated specifically to terminology: AETER (Spain), ELETO (Greece), DTT (Germany), DANTERM (Denmark), Termip (Portugual), Ass.I.Term (Italy), NL-TERM (Netherlands and Dutch-speaking Belgium).

[10] The number of certified translators is much higher, with CTIC reporting more than 2500 across the various provincial associations.

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