

Table of Contents

List of Tables.....	iii
List of Figures.....	v
Foreword.....	vi
Introduction	
Background.....	vii
Objectives.....	vii
Methodology.....	vii
Results.....	x
About DJC Research.....	xi
Finding the study on the net.....	xi
Executive Summary	
Present status of the multimedia industry in Canada.....	xii
Emerging trends.....	xii
Human resource issues.....	xv
The role of government.....	xvi
Financial and investment concerns.....	xvi
Survey Participants.....	1
Respondent's position within their company.....	1
Functional responsibilities.....	2
Primary function.....	3
Multimedia Industry Profile.....	4
The new media industry.....	4
Ownership structure.....	5
Number of employees.....	5
Geographic areas served.....	7
Market segments served.....	9
Industry profitability.....	10
Company and industry revenue trends.....	11
Product development overview.....	12
Industry segmentation based on content specialization.....	13
Content.....	15
Development plans.....	18

Technology	
Hardware development platforms.....	19
Development platforms and industry content segments.....	20
Delivery media.....	20
Delivery media development plans.....	21
Delivery media and industry content segments.....	22
Marketing and Distribution	
Distribution methods.....	23
Selling price for top selling products/titles.....	24
Marketing and distribution issues and industry content segments.....	25
Human Resources.....	26
Pay ranges for salaried employees.....	26
Pay ranges for contract workers.....	27
Hiring expectations.....	28
Training.....	29
Training and industry segments.....	32
Finance.....	33
Sources of financing.....	33
External investor financing.....	34
Adequacy of financing.....	34
Assessment of banking relationship.....	35
Financing expectations.....	36
Financing usage and expectations by industry segment.....	37
Strategic Alliances	
Main purpose for alliances.....	38
Industry sectors engaged in strategic alliances.....	38
Strategic alliances and industry segments.....	40
Government	
Government involvement in multimedia industry.....	41
Usage of government programs.....	43
Perceptions of governments role by industry segments.....	44
Industry Issues.....	45
Issues segmentation.....	46
Industry View of IMAT.....	48

List of Tables

Table 1	Position of Survey Respondent Within Their Company.....	1
Table 2	Respondents' Functional Responsibilities.....	2
Table 3	Respondents' Primary Function.....	3
Table 4	Year Company Engaged in Multimedia Activities.....	4
Table 5	Company Ownership Structure.....	5
Table 6	Total Number of Employees.....	5
Table 7	Average Number of Employees and Proportion in Multimedia..	6
Table 8	Average Number of Employees and Proportion in Multimedia..	7
Table 9	Average Number of Employees and Proportion in Multimedia..	7
Table 10	Geographic Areas Served.....	8
Table 11	International Markets Served by Year Entered Multimedia Industry.....	8
Table 12	Percentage of Business and Industry Revenue Represented by Geographic Area.....	9
Table 13	Markets Segments Served.....	10
Table 14	Profitability by Company Size.....	10
Table 15	Year Expecting to be Profitable.....	11
Table 16	Actual And Forecast Company Revenue.....	11
Table 17	Actual and Forecast Percentage of Company's Multimedia Related Revenue.....	12
Table 18	Classification of Products.....	13
Table 19	Product/Title Development Characteristics.....	17
Table 20	New Product/Title Categories Planning to Develop.....	18
Table 21	Hardware Development Platforms.....	19
Table 22	Delivery Media Currently Developing For.....	20
Table 23	Methods of Distribution Used.....	23
Table 24	Industry Revenue Proportions by Delivery Platforms Current and Two Years Hence.....	23
Table 25	Most Financially Successful Distribution Methods.....	24
Table 26	Selling Price of Top Multimedia Product/Title.....	24
Table 27	Salary Ranges For Salaried Employees.....	26

Table 28	Salary Ranges for Contract Employees.....	27
Table 29	Reasons for Hiring on Contract.....	28
Table 30	Hiring Plans of Multimedia Companies.....	28
Table 31	Multimedia Training.....	29
Table 32	Type of Multimedia Specific Training Employed.....	30
Table 33	Hiring From Training Institutions.....	31
Table 34	Source of Financing Used.....	33
Table 35	Percentage of Company Financed by External Source(s).....	34
Table 36	Opinion of Adequacy of Company Financing.....	35
Table 37	Assessment of Banking Relationship.....	35
Table 38	Amount of Financing Will Seek Over The Next 12 Months.....	36
Table 39	Main Purpose for Strategic Alliance.....	38
Table 40	Expected Alliance Partners.....	39
Table 41	Perceived and Ideal Government Involvement.....	41
Table 42	Usage of Government Programs and Facilities.....	43
Table 43	Agreement with Issue and Perceived Impact on Business.....	45
Table 44	Expected Areas of IMAT Involvement.....	48

List of Figures

Figure 1	Actual and Forecast (1993 to 1997) Multimedia Revenue.....	12
Figure 2	Profile of Industry Segmented by Content Specialization.....	14
Figure 3	Development Platform by Industry Segment.....	20
Figure 4	Delivery Media Current and Planned (Next Two Years).....	21
Figure 5	Delivery Methods by Industry Segment.....	22
Figure 6	Marketing and Distribution by Industry Segment.....	25
Figure 7	Industry Segment Usage of Training.....	32
Figure 8	Industry Segment Usage of Financing and Their Expectations.....	37
Figure 9	Industry Segment History of Alliances and Expectations.....	40
Figure 10	Government Involvement.....	42
Figure 11	Industry Segment Perceptions of Government Role.....	44
Figure 12	Issues Segmentation by Content Specialization Segment.....	46

Foreword

The 1995 IMAT Survey of the Canadian Multimedia Industry is recognition of the commitment by industry and government to define and address the issues facing the Canadian multimedia industry.

The volunteers of IMAT share the vision of fostering the growth of a world-class multimedia production industry in Canada. IMAT's mandate includes a range of cultural and economic goals that parallel those of Canada as a whole. The mandate specifically calls for IMAT to help generate jobs for the multimedia and cultural sectors; to create an environment for economic development; to bridge the gap between information technology (IT) and culture; and, to represent emerging technologies.

To date, the association's achievements have been substantial. Even more impressive is that they have been accomplished with a primarily volunteer effort. IMAT has grown to 500 members nationwide, and draws between 300 and 500 attendees to monthly meetings. A bimonthly newsletter is published and a world wide web home page has been developed.

This past winter, IMAT partnered with Industry Canada in undertaking the first survey of the Canadian multimedia industry. It was clear that more information was needed in order to define this industry sector, as well as identify the issues impeding the growth of this sector. Canada possesses the production capability to become a world-class multimedia production environment and this survey provides some insight for both industry and government to realize this dream.

IMAT would like to thank the following for their participation and support:

- Ms. Ritoo D'Souza and the team from Industry Canada, Information Technology Industry Branch for providing financial support for the survey;
- Mr. Douglas Lee, chairman, IMAT Survey Committee for his commitment on behalf of IMAT to ensure the smooth progress of the survey during its development;
- The IMAT board of directors for their encouragement and confidence to make this project happen;
- Mr. Ben Mair and Mr. Sam Punnett of Quantum Leap Inc. for their consultation during the analysis stages;
- Mr. Dan Colquhoun and Ms. Janine Sumner of DJC Research for designing the survey, analyzing the data and writing the final report;
- Ms. Marie Gauthier and Mr. Keith Pires and the IMAT Survey Committee for their volunteer efforts; and,
- All participants who took the time to complete the survey.

Adam Froman
President
IMAT

Introduction

Background

The Interactive Multimedia Arts and Technology Association (IMAT) has as its mission the establishment of a world class multimedia development industry in Canada. To further this objective, the board of directors of IMAT, in association with Industry Canada, commissioned DJC Research to conduct a comprehensive survey of the multimedia industry in Canada.

Financed by Industry Canada, this research was designed to develop company profiles of multimedia companies in the Canadian marketplace as well as to obtain detailed information regarding the structure, trends, and issues confronting this emerging industry.

The results of this research will be used by IMAT to develop the strategies and tactics necessary for the continued growth and organization of the multimedia industry.

Objectives

The fundamental objective of this research is to provide IMAT with the necessary understanding of the multimedia industry to meet its mission of supporting its development in Canada. The specific objectives of this study are detailed below:

- Provide an understanding of the present status of the multimedia industry in Canada in relation to company indicators such as, sales, equipment, projects, employees, and markets;
- Identify emerging trends in the multimedia industry;
- Isolate the human resource issues facing the multimedia industry;
- Provide the industry's perspective on the role of government in the multimedia industry;
- Yield an internal view of the strengths and weaknesses in the Canadian multimedia industry;
- Describe and map the relationships or linkages between the various multimedia players;
- Detail the industry's financial and investment concerns including access to capital and relationships with financial institutions.

Methodology

During the initial planning stages for this research several alternative methodologies were proposed including telephone and personal face-to-face

interviewing. It was established that the nature of the target group under study dictated a mail survey methodology due to the expected time constraints under which these, often small, business-people work.

The study was designed, coordinated and processed at DJC Research's head office in Toronto.

Sample

IMAT provided DJC Research with a sample frame consisting of 561 multimedia companies in Canada. The sample frame was designed to include companies from all regions of Canada. To compile the list, IMAT used its own membership directory along with other industry associations and directories. IMAT approved the sample frame as being representative of the multimedia industry in Canada by region and type of business.

Each sample unit was categorized by IMAT as either a producer or a publisher of multimedia. A producer was directly involved with the creation and development of the media elements and their integration into an interactive multimedia presentation. A publisher was involved in producing and also in the marketing, promotion and financing of interactive multimedia products. The sample distribution is shown in the table below.

INDUSTRY SECTOR	SAMPLE	PCT. OF SAMPLE
Production	452	81
Publishing	109	19
Total	561	100

Questionnaire design

The survey, available in both English and French, was designed by DJC Research in consultation with IMAT and Industry Canada. The questionnaire was divided into two parts—a company profile and a survey. Each section of the questionnaire is described briefly below. Copies of the questionnaires used for this study are appended to this report.

Part 1—Company Profiles: This section was designed to collect information to be used for the building of strategic linkages in Canada and to promote the indigenous industry to foreign markets. This section was made up of primarily open ended questions pertaining to nature of business, major achievements, company size, key customers, products and services, current marketing activities and partnering interests. A directory example was provided to aid the respondent in completing this section.

Part 2—Survey of Canadian Multimedia Companies: This section was designed to provide IMAT with an understanding of the issues facing the

multimedia industry in Canada with questions pertaining to content, distribution methods, human resources, financing, government involvement in the industry, and strategic alliances.

Pretest

The questionnaire was pretested with five multimedia companies recommended by IMAT. The respondents were asked to complete the questionnaire on their own, as they would under regular survey conditions. Subsequently, they were debriefed to identify any problems with comprehension, wording or jargon, or with the overall format and length.

Data collection

Telephone interviewing was used to screen and recruit qualified respondents to complete a brief telephone interview and a more detailed self-completion mail questionnaire. Respondents were screened to determine qualification. The following procedures were implemented to increase the company's willingness to participate:

- Each respondent was given a brief explanation of the relevance of the project to their business;
- All participants completing the survey would be included in a draw for an Apple QuickTake digital camera, valued at \$1,200;
- All participants completing the survey would receive a summary report of the survey findings;
- All participants completing the survey would be included in a government database used specifically to promote Canadian multimedia companies.

In order to maintain the highest degree of control over the quality of the data collection, no part of the field work was subcontracted. The Quebec sample was recruited through DJC Research's Montreal office while the remaining sample were recruited in Toronto.

The survey was printed using an 8½" × 11" booklet format, which was mailed with a covering letter printed on DJC Research letterhead and a postage paid return envelope. A total of 410 surveys were mailed to respondents using first class mail.

Reminder cards were also used to insure high return rates. One week after the initial mailing, personalized reminder cards were delivered to non-responders. The reminder included a thank you in advance and a toll-free phone number to call for a replacement survey or for assistance.

To further ensure a high rate of response, two telephone reminders calls were placed. The first call was made approximately one week following the mailing of the reminder card, and the second call was made one week following the first call.

Results

The response rate for this survey was 52 per cent (213 surveys received), and this report is based on 203 usable surveys.

The table below shows the provincial distribution of the sample used for this analysis. As the table indicates, the sample distribution is very close to the provincial distribution in the original sample frame.

PROVINCE/COUNTRY	ORIGINAL		MAIL		SAMPLE	
	SAMPLE FRAME	PCT.	OUT	PCT.	RETURN	PCT.
Alberta	13	2	14	3	9	4
British Columbia	43	8	33	8	14	7
New Brunswick	17	3	13	3	7	3
Nova Scotia	31	5	25	6	19	9
Newfoundland	3	1	3	1	-	-
Ontario	388	69	267	65	130	64
Quebec	60	11	50	12	19	9
Saskatchewan	5	1	4	1	4	2
Manitoba	2	*	1	1	-	-
USA	-	-	-	-	1	*
Total	561	100	410	100	203	100

*Less than one half of one percent.

Of all survey participants in this analysis, 96 per cent (194 companies) are involved in creating and developing multimedia content (i.e., the operational definition of *production* used in the survey materials). Two-thirds (65 per cent, or 131 companies) claim to be involved in marketing and distributing multimedia products, or *publishing* as the operational definition was labeled for purposes of the survey.

Although the original sample frame suggested mutual exclusivity between production and publishing organizations some companies claimed, in the survey itself, to be both producers and publishers. This is suggestive of interpretive bias, that is the survey participants chose to interpret the provided operational definitions in ways that more closely aligned with their understanding of the industry and their role in it. Caution should be used in cases where the industry is segmented along these lines.

About the report layout

The results of the research are presented in the form of summary tables with brief commentary. Detailed tabulations have been supplied under separate cover.

Boxes are used in the report to highlight figures that are relatively significant either comparatively or as a general point of interest. No statistical significance is necessarily implied by this technique.

Some columns may not add to 100 per cent due to rounding.

About DJC Research

DJC Research is part of the Nielsen SRG world-wide family of companies, the largest research company in the world and the recognized global leader in marketplace intelligence. Affiliated companies in Canada include A.C. Nielsen Company of Canada and Dun & Bradstreet Canada Inc.

Our Canadian-based staff includes senior research professionals with expertise not only in market surveys but also the application of market research to a wide range of media related issues. We also draw from the knowledge base of sister-companies operating in over 90 countries.

Finding the study on the net

The survey will also be available in electronic form on the IMAT internet site in WWW format. The WWW url is <http://www.goodmedia.com/imat>.

Executive Summary

This study was designed to address a number of issues that were identified at the outset of this project. This section will address the key issues raised at that time based on the findings of this research.

Present status of the multimedia industry in Canada

The multimedia or new media industry is a fast growing sector of Canada's economy. Most companies currently operating a dedicated or multimedia integrated business were established in the early part of this decade. Indeed, almost one quarter of the industry was only in its second year of operation at the time of this survey.

This youthful industry tends to be dominated by privately held companies, which comprise 86 per cent of the companies surveyed for this report. The few publicly traded companies tended to be large software developers, publishers and content owners with multimedia divisions.

Ontario as the geographic centre

Based on the distribution of the original sample frame for this survey, the industry is primarily centred in large metropolitan areas with the greatest concentration in southern Ontario. Outside of Ontario, the province of Quebec has the highest proportion of multimedia companies in Canada followed by British Columbia.

The sample frame used for the survey was a compilation of the best available listings of multimedia companies available at the time. As no definitive universe statistic exists for the industry, the data are not appropriate for determining estimations for the total size of the industry in revenue terms. Still, noted industry experts, such as Mr. Ben Mair of Quantum Leap Inc. in Toronto, have estimated that there are approximately 500 multimedia developers in Canada. To establish the true size and scope of the industry would require additional survey work, possibly with the aid of Statistics Canada or other government agencies.

Business market focus

The sales focus for most multimedia companies surveyed is the corporate sector. Often with stand-alone, one-off projects, multimedia companies generate over half their revenues serving this market versus about one-third in the consumer driven home market.

Industry experts have suggested that multimedia firms generate most revenue from contract production in the corporate and education sectors.

Indeed, it is contract work that provides most of the working capital for small and medium sized multimedia companies. This opinion appears to be supported by the data, wherein most companies are reporting both low levels of external financing (less than 30 per cent) and inadequate external financing.

Growth oriented but not ready

A lot of the ground work has been laid for this industry to grow. The installed base of multimedia capable computers has reached consumer proportions, but consumers and publishers still have to contend with the high cost of developing for multiple incompatible platforms. Although the industry is more knowledgeable, with the experience gained through working on fee-for-service assignments, the high cost of development in the consumer marketplace is a very real limitation to growth.

As more content is developed in Canada—and more strategic linkages are made between publishers, content providers and developers—the revenues generated from multimedia products in Canada are expected to grow and contribute substantially to total multimedia revenues.

The industry has recognized, through this survey, several key issues that will impact on the potential for realizing the significant growth forecast over the next three years. A dominant theme throughout is access and availability to capital: human and financial.

Emerging trends

Although the Canadian multimedia industry has a significant presence in international markets, the data suggest that this presence is not contributing proportionately to companies' revenue base. Since 53 per cent of recent start-ups are already serving international markets (including the US market), the industry should consider initiatives to encourage investment in new media content, and to support the industry's requirement for international market distribution.

Canada is a niche market, and one generally considered not large enough to exclusively support a multimedia product development base focusing on the consumer market. Yet, the data suggest a high degree of interest among firms to develop for the typically capital intensive consumer market. The dichotomy between the business strategy of much of the industry and the present conditions regarding availability of capital, market size and retail channel issues represents one of the most important challenges for industry.

The industry is also potentially hobbled by the scarcity of a ready and skilled labour pool—most executives interviewed indicated dissatisfaction with the ability of private and public educational facilities to produce the level of skilled work-force required and in the numbers required.

Additionally, the lack of fundamental business knowledge in the industry has been clearly identified by the multimedia executives surveyed for this report, and is further supported by the experience of venture capital firms that specialize in the high technology sector. It is the opinion of several such firms that the industry tends to be too opportunistic and has not demonstrated an ability to develop the business model necessary to generate and sustain revenue growth and profitability.

The importance of strategic alliances

The newer and smaller companies in the industry are most likely to consider structuring alliances with other industry sectors to create new consumer products and distribution opportunities to grow and differentiate their current business. These alliances, with appropriate financial support, will allow companies to move away from their low revenue, non-consumer generating fee-for-service jobs to more sustainable product development.

Moving to the consumer marketplace

Most of the multimedia industry's products and titles are directed at the corporate and education sectors, which are typically characterized by low production costs using high value content. This business model is apparently successful in other geographic areas in which multimedia has centred itself, but arguably the highest growth opportunities lie in producing consumer product (i.e., entertainment and games) for mass distribution. These products require financing, publishing knowledge and relevant content to succeed internationally.

Industry experts have estimated that there are very few major consumer publishers of new media (i.e., broadly defined as having access to retail shelf space). There is a strong fear that Canada will lose its talent to the United States without aggressive publishing and financial involvement. Industry experts also point out that Canada has substantial creative production capability and ample content.

Marketing and distribution trends

An industry which focuses on the corporate sector tends to use direct methods for generating sales. As the industry attempts to shift its emphasis towards product development and away from services, the requirement for intermediary distribution will increase. As a whole, the industry is forecasting major growth in distribution methods that favour the consumer, including on-line methods.

Concurrent with this growth in developing consumer channels, the industry expects similar declines in direct sales methods. Still, direct sales is expected to account for fully one-third of industry revenues in two years, down from 44 per cent today.

These changes represent still additional challenges for an industry struggling with rapid growth. Direct sales are widely considered the most financially lucrative methods for distribution of product. Access to traditional consumer channels including retail distribution are considered by few to be currently financially viable.

Human resource issues

Indicative of a labour intensive and leading edge industry such as this one, contract positions are used by a majority of the firms surveyed. Creative and technical positions dominate the list of contract positions.

Consistent with overall industry expectations of growth, a majority of the respondent companies report that they intend to hire additional personnel in 1995. On an individual category basis, almost two-thirds (62 per cent) report expectations of new technical hires, a similar proportion (59 per cent) for creative personnel and a lesser proportion (44 per cent) in management, administration or sales.

Survey respondents require management and creative personnel with at least four years experience, on average. Technical personnel with four years experience fit the ideal profile according to respondents.

The latter group are said to be the most difficult to find. Almost half (46 per cent) note that technical positions will be difficult to fill. Just under one-third (32 per cent) of respondents mention that they expect difficulty in hiring for creative or management positions.

Training is widespread yet informal

Most (75 per cent) multimedia companies report that there is some form of training provided to employees. Larger firms are more likely to offer training than smaller companies. For example, nine-in-ten companies with more than 30 employees note some sort of training. The proportion falls to just under seven-in-ten for smaller entities (i.e., those with fewer than 10 employees).

While a majority of companies provide training, much is described as informal on-the-job type of training. Formal training is restricted to just over half (56 per cent) of the larger firms with any training. A minority of smaller companies have any formal training programs in place currently.

In-house training programs are traditionally used with external training, primarily industry related seminars.

Those hiring graduates from external training institutions are not universally pleased with the results, suggesting an opportunity to better align industry requirements with educational curricula and standards.

Most of the industry represented in this survey note that it is *very important* for someone in the multimedia industry to have both creative and technical skills, while 94 per cent agree that it is either *very* or *somewhat difficult* to find such people. A majority note that this is a *very difficult* proposition.

As an industry issue, the human resource issue is a close third after obtaining financial capital and the incompatibility of delivery platforms. The vast majority also agree that the difficulty in finding experienced and well-trained new employees has a major impact on their business.

The role of government

Perception and reality

There were wide gaps in perceptions between current government involvement in the industry and the ideal level of government involvement. Most industry executives surveyed do not perceive the federal government is closely involved in implementing services directed at the multimedia industry specifically.

It is apparent that most industry executives believe the government's primary role should be in providing sources of financing to the industry. The form of the financial involvement should be through training and employment incentives and grants and loans.

The survey participants also rejected a governmental role in regulating the industry or in standards development, although both are widely held as important industry issues.

Those actively using existing government assistance programs tended to be concentrated in the educational market. Overall, current industry usage of government programs and facilities are well below the ideal levels noted. This suggests opportunities for leveraging current programs, increasing their visibility or developing new public and private sector initiatives entirely.

Financial and investment concerns

The multimedia industry in Canada today is faced with challenges similar to those of the early film, publishing and software industries. To meet the ever increasing capital requirements for product and title development the industry will require access to large capital resources. At present, 61 per cent of companies are using non-intermediary funding in their businesses, with the larger companies being more likely to use traditional financial intermediaries such as banks and trusts.

Yet, almost two-thirds of survey participants do not consider their business to be financed adequately. And, there is some evidence in this survey

to suggest that a significant proportion of the industry is less than satisfied with their current banking relationships.

Profitability is elusive

Industry experts suggest that it typically takes at least two years for a multimedia company to attain operating profitability. Since, according to industry sources, new developers rarely recognize the cost of marketing and sales in their pricing, they are not accounting for all the time costs expended for in product development.

The financial data provided by the survey participants indicate just over half of multimedia companies in Canada are operating profitably. This apparent conflict with the expert view of the present financial status of the industry is further exacerbated by the highly optimistic growth projections also provided by the participants.

As the industry is apparently endorsing government involvement in providing funding through tax credits, incentives, grants and other financial assistance initiatives this discrepancy should be explored further. At the least, the industry's indicated need for enhanced business planning expertise should be heeded, possibly through the auspices of industry associations and external training providers.

Survey Participants

This section outlines the characteristics of the survey participants in terms of job function and responsibilities. Due to the detailed and often sensitive company information required, the survey materials were directed to the most senior person identified in the lists provided by IMAT and which constituted the sample frame.

Telephone screening during the survey recruitment process was used to further ensure the survey materials were sent to the most appropriate person within each organization included in this study. In addition, instructions were provided in the survey package mailed to each participant describing the kinds of information and level of detail required. This latter step provided the recipient with the option of passing the survey to a more appropriate person within the organization.

Respondent's position within their company

About four-fifths (81 per cent) of all respondents to this survey were senior management or above (i.e., sole proprietor or partner). These proportions did not vary significantly by industry sector.

Table 1 Position of Survey Respondent
Within Their Company

Base: All companies

	TOTAL (203)
	%
Sole proprietor/partner	55
Senior Management	26
Contractor/Consultant	4
Employee	3
Other	8
Refused	3

Functional responsibilities

Indicative of the size and relative immaturity of most multimedia companies responding to this survey, the senior level person within these companies tends to a wide range of responsibilities. These included the expected managerial and administrative responsibilities and extended to most other company roles including creative services and technical functions.

Table 2 Respondents' Functional Responsibilities

Base: All companies

	TOTAL (203)
	%
Executive management	73
Multimedia development	66
Creative services	57
Sales	63
Marketing	73
Administration	80
Product management	45
Consulting	53
Production services	44
PR/Communication	53
Customer service	60
Engineering/R&D	28
MIS/IT management	16

Primary function

The concentration of most survey participants is on management responsibilities with a strong role in creative development. The range of responsibilities encompassed suggests that the senior person in many multimedia organizations tends also to be a critical creative force within their organization.

Table 3 Respondents' Primary Function

Base: All companies

	TOTAL (203)
	%
Executive management	32
Multimedia development	20
Creative services	11
Sales	7
Marketing	7
Administration	4
Product management	4
Consulting	3
Production services	4
PR/Communication	1
Customer service	1
Engineering/R&D	1
Refused	3

Multimedia Industry Profile

Those responding to this survey were each asked to provide detailed information on their company.

The multimedia companies responding to this survey have been classified, based on their 1995 business projections, for purposes of profiling the industry throughout this report. These classifications are as follows:

1. Multimedia companies for which revenues will be derived solely from multimedia activities in 1995. About one third (34 per cent) of companies surveyed classified themselves as *dedicated* multimedia companies.
2. Companies with revenues that are not entirely attributed to multimedia are termed *non-dedicated* multimedia companies. Almost two thirds (61 per cent) reported revenue generated outside the multimedia industry.

Other methods of segmenting the industry are provided within this report. For purposes of profiling the industry, and its present status in Canada, the method of segmentation based on proportional dedication to the multimedia business provides a revealing portrait of the structure of the industry at present.

The new media industry

Just over one-third (37 per cent) of the multimedia industry in Canada have been involved in multimedia since before 1991. Indicative of the pace of growth of the industry, almost one-quarter (22 per cent) of multimedia companies in Canada entered the industry within the past year.

Table 4 Year Company Engaged in Multimedia Activities

Base: All companies

	TOTAL (203)	COMPANY SIZE	
		LESS THAN 10 (94)	10 OR MORE (93)
	%	%	%
Prior to 1991	37	29	43
1991 to 1993	38	38	41
1994 to 1995	22	29	14
Refused/Don't Know	3	4	2

Larger companies (i.e., those with more than 10 employees) joined the industry earlier—43 per cent prior to 1991. Almost one-third of smaller companies are recent start-ups (i.e., in 1994 or 1995).

Ownership structure

The majority of multimedia companies (86 per cent) are currently privately held. The public sector comprises some of the larger organizations in the industry, and are primarily involved in publishing titles and products for the education market.

Table 5 Company Ownership Structure

Base: All companies

	TOTAL (203)
	%
Privately held	86
Publicly traded	7
Public sector	5
Refused/Don't Know	2

Number of employees

Multimedia companies tend to be small businesses, with close to half the companies surveyed (46 per cent) employing less than 10 people.

The mean number of employees working in dedicated multimedia companies was significantly lower than for the non-dedicated multimedia companies. These companies had an average of 106 employees as compared to 21 employees for companies solely engaged in multimedia businesses.

Table 6 Total Number of Employees

Base: All companies

	TOTAL (203)	MULTIMEDIA DEDICATED	
		YES (68)	NO (123)
	%	%	%
Less than 10 employees	46	46	49
10 to 30 employees	30	39	26
More than 30 employees	16	9	20
Refused/Don't know	3	4	2
Average	74	21	106

Multimedia companies are comprised primarily of management, sales, administration, creative and technical personnel with varying proportions employed full-time or on a contract basis. On average, the industry employs between 30 and 50 per cent of its full-time work force in multimedia activities.

(N.B. The tables to which this commentary applies, tables 7–9, provide average number of employees for each functional category and the percentage of total employees that multimedia related positions represent.)

Personnel in creative roles tend to dominate contract positions within the total company structure. These positions are not always related directly to the company’s multimedia business with less than half assigned to multimedia roles.

Technical workers hired on contract are more likely to be employed strictly on multimedia related assignments. Indeed, most of an individual company’s technical compliment of personnel are employed on a contract basis.

If management, sales or administrative functions are hired on contract, these are more likely to be multimedia related positions. Again, these positions are related to requirements for short term project driven assignments.

Table 7 Average Number of Employees and Proportion in Multimedia
Base: All companies

	FULL-TIME			CONTRACT		
	TOTAL COMPANY (203)	MULTI- MEDIA (203)	PCT.	TOTAL COMPANY (203)	MULTI- MEDIA (203)	PCT.
	AVG	AVG	%	AVG	AVG	%
Management/ Admin/Sales	8.6	3.3	38	0.5	0.4	65
Creative	4.4	2.1	47	3.4	1.6	47
Technical	4.9	1.7	34	1.3	1.0	82

Within dedicated multimedia companies the composition of most functional positions—with the exception of technical personnel—vary considerably from the industry average (table 8, overleaf). Dedicated multimedia companies are particularly more apt to be hiring personnel to fulfill creative assignments on contract almost exclusively for multimedia related work.

Table 8 Average Number of Employees and Proportion in Multimedia

Base: All dedicated multimedia companies

	FULL-TIME			CONTRACT		
	TOTAL COMPANY (62) AVG	MULTI- MEDIA (62) AVG	PCT. %	TOTAL COMPANY (62) AVG	MULTI- MEDIA (62) AVG	PCT. %
Management/ Admin/Sales	5.5	3.7	67	0.5	0.4	80
Creative	2.2	2.2	100	1.9	1.8	95
Technical	6.6	2.6	39	1.4	1.4	100

Non-dedicated multimedia companies are more closely aligned in their usage of personnel with the industry as a whole. This reflects the dominance of these types of companies on the basis of their size.

Table 9 Average Number of Employees and Proportion in Multimedia

Base: All non-dedicated multimedia companies

	FULL-TIME			CONTRACT		
	TOTAL COMPANY (106) AVG	MULTI- MEDIA (106) AVG	PCT. %	TOTAL COMPANY (106) AVG	MULTI- MEDIA (106) AVG	PCT. %
Management/ Admin/Sales	5.4	3.0	56	0.5	0.3	60
Creative	4.8	2.0	42	4.4	1.4	32
Technical	3.0	1.3	43	1.3	0.9	69

Geographic areas served

Almost all (98 per cent) multimedia companies service Canada with over three-quarters (79 per cent) of the industry's total revenue generated from activities in the Canadian market (see table 10).

Dedicated multimedia companies are slightly more likely to already be serving international markets outside of the United States, and have achieved slightly greater penetration of the US market than businesses in which multimedia is but one component.

Dedicated multimedia companies have higher levels of international development than non-dedicated multimedia companies across most global markets with the exception possibly of Europe. In Latin America and Southeast Asia in particular, dedicated multimedia companies have achieved significant market penetration.

Table 10 Geographic Areas Served

Base: All companies

	TOTAL (203)	MULTIMEDIA DEDICATED	
		YES (68)	NO (123)
	%	%	%
Canada	98	100	99
United States	58	69	52
Europe including the UK	22	21	23
Latin America	7	13	4
Southeast Asia	11	16	8
Japan	8	11	7
Other	10	15	9
Refused	2	-	1
NET International (US included)	60	72	54
NET International (US excluded)	31	34	29

Companies entering the multimedia industry prior to 1991 are more active internationally than those who recently entered the multimedia industry. Table 11, below, reveals a graduated approach to international market entry for multimedia companies. US markets are apparently developed first with Asian markets a less likely target for new entrants.

Table 11 International Markets Served by Year Entered
Multimedia Industry

Base: All companies

	YEAR BEGAN		
	MULTIMEDIA OPERATIONS		
	PRIOR TO 1991 (74)	1991 -93 (77)	PAST YEAR (45)
	%	%	%
USA	62	57	53
Asia Pacific including Japan	20	16	4
Europe	22	26	11
Other	14	7	9
Don't know/Refused	1	4	-

At this stage in the development of the multimedia industry in Canada, almost four-fifths of company and industry revenue are derived from business

activities in the Canadian market. The contribution, to individual company revenue, of international markets outside of the US is relatively limited. Indeed, although over half the companies surveyed indicate revenue generating business activities in the US, this market contributes just over one quarter (28 per cent) of company revenue.

Table 12 Percentage of Business and Industry Revenue Represented by Geographic Area

Base: All companies

	GEO-	MARKETS AS A...	
	GRAPHIC AREAS SERVED (203)	PCT. OF BUS. (203)	PCT. OF IND. (191)
	%	%	%
Canada	98	79	79
United States	58	28	16
Europe including the UK	22	13	3
Latin America	7	6	*
Southeast Asia	11	6	1
Japan	8	7	*
Other	10	10	1

*Less than one half of one per cent.

The proportion of the industry's revenue base contributed by international markets is small at present with the European markets representing the largest single share. The US market is a more significant contributor to industry revenue although disproportionate to the level activity generated.

Market segments served

The multimedia industry in Canada has also developed across a broad range of industry sectors. Table 13 (shown overleaf) indicates the most common markets served by the multimedia industry in Canada are the business sector at 73 per cent followed by education (66 per cent), government (45 per cent) and the home market (41 per cent). Of these, the government and education sectors contribute a disproportionately smaller share of the industry's revenue base.

Of those serving the business market, on average over half (58 per cent) their total company revenues are derived from this market. According to industry experts, products for this market traditionally have been non-commercial and developed for use by business organizations for applications

such as archiving, document and data retrieval systems, reference databases, training, presentations and information kiosks.

Table 13 Markets Segments Served

Base: All companies

	MARKET SERVED (203)	PCT. OF COMPANY REVENUE
	%	%
Business	73	58
Education	66	35
Government	45	24
Home	41	37

Industry profitability

Overall, just over half (53 per cent) of multimedia companies reported profitable operations for the fiscal year just ended. In contrast, a recent survey of multimedia developers in the United States (Wall Street Journal, March 1995) showed just 4 per cent claimed profitability. These data are not directly comparable since in this IMAT study the broader definition—which includes publishers and producers in addition to companies not entirely dedicated to multimedia—of the multimedia industry has been surveyed.

Still, those companies that rely solely on their multimedia activities to generate revenue were less likely to report profitability (44 per cent) than companies with other revenue generating activities (61 per cent).

Almost two-thirds (64 per cent) of companies with over 10 employees indicated they were profitable compared to 43 per cent of small companies with less than 10 employees indicating profitable business operations.

Table 14 Profitability by Company Size

Base: All private sector companies

	COMPANY SIZE			MULTIMEDIA DEDICATED	
	TOTAL (189)	LESS THAN 10 (91)	10 OR MORE (86)	YES (61)	NO (99)
	%	%	%	%	%
Company is profitable	53	43	64	44	61
Company is not profitable	40	51	29	52	37
Refused	7	6	7	4	2

Multimedia companies are possibly even more aggressive in their estimation as to when they will be profitable. About nine-in-ten are forecasting profitable operations within the next two years.

Yet, companies that reported operations dedicated solely to multimedia were less likely to report expectations for a profitable year in 1995 (41 per cent).

Table 15 Year Expecting to be Profitable

Base: Companies not currently profitable

	TOTAL (75)	MULTIMEDIA DEDICATED	
		YES (32)	NO (37)
	%	%	%
In 1995	49	41	60
In 1996	40	44	32
In 1997	5	9	3
After 1997	5	6	5

Company and industry revenue trends

Total company revenues have remained stable from 1993 to 1994, yet companies are forecasting aggressive revenue growth over the next three years.

Table 16 Actual And Forecast Company Revenue

Base: All companies

	ACTUAL		FORECAST		
	1993 (176)	1994 (198)	1995 (203)	1996 (203)	1997 (203)
	%	%	%	%	%
Less than \$1 million	62	63	59	46	38
\$1 million or more	16	18	26	32	37
Don't know/refused	22	19	15	22	25

Multimedia derived revenue

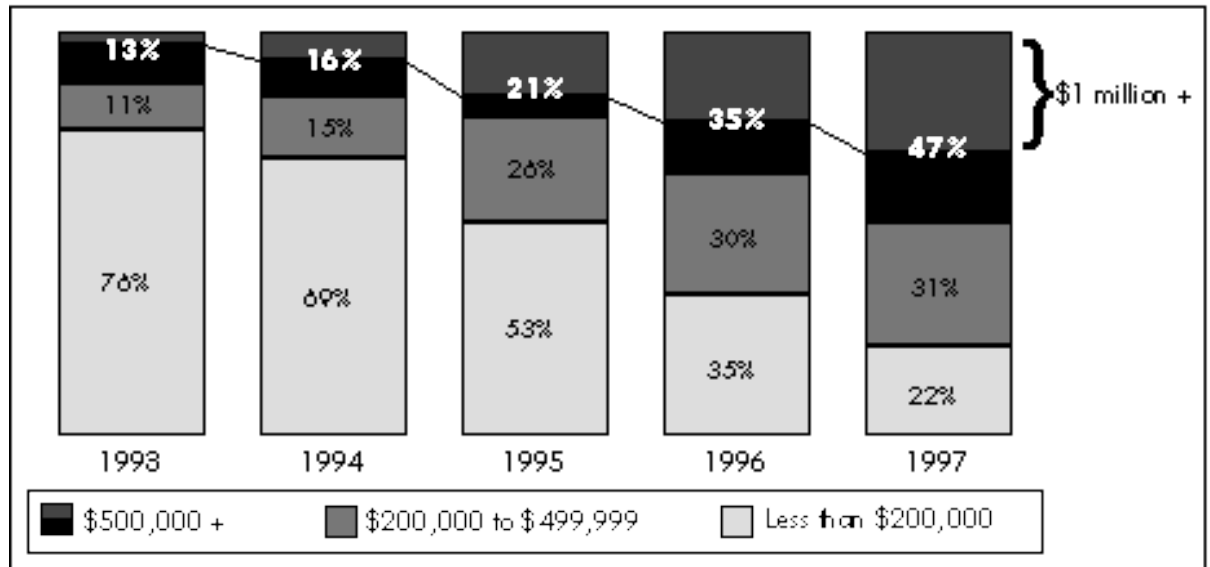
Companies were asked to provide their actual revenue figures for 1993 and 1994 and then to project revenues for 1995, 1996 and 1997. The companies surveyed were also asked to estimate the percentage of their total company revenues that were and would be derived from their multimedia business.

Figure 1, below, illustrates the industries expectations for dramatic growth over a five year period. By 1997, 47 per cent of multimedia companies expect to

have revenue over \$500,000, and almost 80 per cent of these expect to report revenue of over \$1 million.

Still, growth of this magnitude is not supported by the actual industry figures provided for 1993 and 1994. This discrepancy should be studied further to determine industry rationale for this prediction.

Figure 1 Actual and Forecast (1993 to 1997) Multimedia Revenue



Multimedia revenue growth among non-dedicated multimedia companies

Less than one-fifth of non-dedicated multimedia company revenues were generated by their multimedia business activities in 1993 but this figure rises to almost one-third of total company revenue within just one year. And, by 1996, these companies predict half their company’s revenue will be generated by multimedia related activities alone.

Table 17 Actual and Forecast Percentage of Company’s Multimedia Related Revenue

Base: Non-dedicated multimedia companies

	ACTUAL		FORECAST		
	1993 (123)	1994 (123)	1995 (123)	1996 (123)	1997 (123)
	%	%	%	%	%
Total	19	30	41	49	51
Less than 10 employees	20	31	44	53	56
10 to 30 employees	20	33	45	53	54
31 employees or more	10	16	23	31	37

Product development overview

The companies surveyed were asked to describe up to five interactive multimedia products, services or titles currently being developed by the company. Companies classified the product as information or reference, education, sales and business, training, or entertainment and games. A total of 599 multimedia products were described by the 203 companies surveyed (an average of about three per company). Table 18 classifies these products.

Table 18 Classification of Products

Base: Total number of products described

	TOTAL (599)
	%
Information/Reference	19
Education	24
Sales/Business	23
Training	19
Entertainment/Games	8

The entertainment and games segment is the least developed category in the Canadian industry at present with a less than one-tenth share of products referenced. Other products were approximately equally distributed across the four remaining categories with a bias to education and sales and business products.

Industry segmentation based on content specialization

In this section, the results of a segmentation analysis of content data are documented. Three distinctive industry segments were identified and together define the Canadian multimedia industry as it is presently structured. The segments were generated from responses to the question in which companies were requested to classify their most recent original products, services or titles. Cluster analysis (i.e., Howard Harris method) was used to identify subgroups of companies with similar production patterns.

For ease of interpretation and presentation of findings, these segments are used to profile key areas in the report. A summary of the three segments follows.

Corporate Segment

Focusing on serving the needs of its corporate clientele these companies are primarily producing training products, and sales and business presentations. One quarter (25 per cent) of companies fall into this segment.

Most companies making up this segment are small companies of less than 10 employees.

Education Segment

Just under half the companies (44 per cent) are classified in the education segment. Comprised of large companies this segment serves the education market with a high proportion also serving the home market.

A high proportion of this segment have developed international markets.

Information, Reference and Entertainment

Primarily medium sized companies with the lowest average years in business (three years). The third group is primarily information/reference focused with entertainment and games also included. Just over 30 per cent of the companies fall into this segment.

The following chart summarizes some of the unique characteristics of these industry segments based on some of the industry characteristics profiled in this section.

Figure 2 Profile of Industry Segmented by Content Specialization

Corporate Segment	Education Segment	Info/Ref/Ent. Segment
<ul style="list-style-type: none"> • Production focused • Small companies • Involved in multimedia industry for an average of over five years • Good penetration into US markets • Slight penetration in other international markets • More likely to serve the business segment • Training, sales and business presentations are the production focus 	<ul style="list-style-type: none"> • Involved in publishing • Large companies • Involved in multimedia industry for an average of nine years • Serving international markets • Most likely to serve the education segment • 60 per cent also serving home market • Education products and services is the production focus 	<ul style="list-style-type: none"> • Production focused • Medium size companies • Involved in multimedia industry for an average of three years • Good penetration into US markets • Slight penetration in other international markets • Primarily serving the business and home market segments • Information/Reference and entertainment is the production focus • More likely to have revenues over \$1 million

Throughout the remainder of this report, reference will be made to these three segments for illustrative purposes.

Content

A total of 599 original products, titles or services were described by the 203 participating companies in the survey. For each of the products described, the company indicated the following characteristics:

- Delivery platform the product was being produced for;
- Estimated total development costs;
- Intended market target;
- Whether or not the content was developed entirely in-house or with third party support.

These product and title categories were prescribed in the survey materials. Survey participants identified the above characteristics under the five prescribed categories. The following commentary to table 19 focuses on the unique characteristics of each category.

Information Reference

The *information reference* category of products or titles include encyclopedias, dictionaries and other electronic publishing or reference works.

The majority (55 per cent) of these products and titles are delivered on CD ROM, with few—compared to other title classifications—in this category being delivered on diskette. Other significant delivery platforms were kiosks at 14 per cent and cable or telephone at 11 per cent.

Development costs tend to be lower than average—50 per cent of the products produced in this classification were less than \$50,000. The products are directed at a fairly broad market with the business sector accounting for 45 per cent of the products produced followed by the home market (34 per cent) and public institutions (33 per cent). Education (30 per cent) and government (28 per cent) markets account for most of the remaining consumption.

Compared to other product and title categories, information reference products and titles are produced with the lowest level of original in-house developed content.

Entertainment and Games

Products created for commercial sale to consumers represent the smallest share of products referenced by the industry participants. Most are developed entirely in-house, with little third party support, but one-fifth of the products/titles required over \$200,000 in development capital.

Industry experts have suggested this to be the norm for products and titles competing in this potentially most lucrative market.

On-line distribution was higher than average for this content category at 17 per cent of products and titles, although CD ROM is the dominant platform for product/title delivery.

Education

These titles are created for the purposes of learning and primarily serve formal educational institutions and school boards. Indeed, over three quarters (77 per cent) of the products are directed at the education market with the home market sector also a large market for this product and title category.

Although a high proportion are delivered on CD ROM, diskette continues to maintain a high share of this market as a delivery vehicle. Other delivery platforms included videodisk (5 per cent), cable or telephone (8 per cent), and kiosks at 8 per cent.

Development costs tend to be among the highest of the five product categories with a higher than average reliance on third party content.

Training Aids

The product and title category of training aids tend to be fee for service contracts for corporations. The business market is the target for 70 per cent of training aid products. The education and government markets also represent significant targets for products in this class.

A high proportion of these multimedia products are being produced for distribution on DOS based systems—which tends to be the corporate standard. The high proportion of diskette usage also suggest other requirements of the markets served such as many low cost one-off projects and a requirement to meet the lowest common denominator in the installed base of the client.

Other delivery platforms used include CD-i at 10 per cent and LAN/WAN networks at 11 per cent.

Sales and Business Presentations

These products are primarily designed for DOS based platforms with a high proportion of diskette delivery.

Most of these products and titles (78 per cent) have development costs of less than \$50,000, and 69 per cent are developed entirely in-house.

Table 19 Product/Title Development Characteristics

Base: Companies involved in production

	PRODUCT/TITLE CLASSIFICATION				
	INFO./ REF. (116) %	ENT./ GAMES (47) %	EDUC- ATION (145) %	TRAINING (107) %	SALES/ BUS. (138) %
DELIVERY MEDIUM					
CD ROM	55	55	48	36	43
Diskette	17	13	29	33	33
Other	40	55	34	53	40
DEVELOPMENT COST					
Under \$50,000	50	42	44	46	78
\$50,000 to \$199,999	28	27	34	32	14
\$200,000 and over	9	21	16	11	3
Refused/Don't know	13	8	5	11	4
INTENDED MARKET					
Home	34	60	43	8	9
Business	45	9	15	70	84
Education	30	17	77	24	10
Government	28	-	10	22	11
Public institutions	33	19	21	5	7
Other	14	13	5	12	9
CONTENT DEVELOPMENT					
Entirely in-house	43	62	53	57	69
Provided by third party	13	6	5	12	5
Third party participation	39	23	37	26	22

Development plans

Participants in the survey were asked to indicate their organization's development plans. The responses to this question do not indicate the emergence of any industry category emphasis. Indeed, the reluctance, or uncertainty, of company development plans (i.e., 24 per cent indicating refused or don't know in response to the question) is most noteworthy.

Table 20 New Product/Title Categories Planning to Develop

Base: Companies involved in production

	CURRENT PRODUCT/TITLE CATEGORIES					
	TOTAL (194)	INFO./ REF. (87)	ENT./ GAMES (35)	EDUC- ATION (79)	TRAINING (68)	SALES/ BUS. (73)
	%	%	%	%	%	%
Information/reference	15	-	11	17	18	10
Entertainment/games	18	17	-	25	21	18
Education	20	20	20	-	21	21
Training	17	13	20	15	-	18
Sales/business presentations	11	17	9	10	13	-
Other	6	7	9	6	6	6
Refused/don't know	24	26	20	20	22	25

Technology

Hardware development platforms

DOS based systems (77 per cent) and the Macintosh (69 per cent) dominate as development platforms in the multimedia industry in Canada. Other platforms in use for development purposes are Silicon Graphics workstations and Amiga computers.

The majority of multimedia developers are developing on both the PC and Macintosh. Platform exclusivity is practiced by 30 per cent of developers with PCs the favoured choice.

Table 21 Hardware Development Platforms

Base: Companies involved in production

	TOTAL (194)	YEAR BEGAN MULTIMEDIA OPERATIONS		
		PRIOR TO 1991 (73)	1991 -93 (72)	PAST YEAR (42)
	%	%	%	%
PC/IBM clone or compatible	77	77	82	71
Macintosh	69	64	69	76
Silicon Graphics (SGI)	12	14	15	7
Amiga	9	10	3	19
Other	7	7	8	2
Exclusively PC	17	19	15	14
Exclusively Macintosh	13	8	11	26
Both PC and Macintosh	54	53	58	48

Those entering the industry recently are more likely to be developing exclusively on Macintosh than those who entered the multimedia industry prior to 1994 (9 per cent).

Development platforms and industry content segments

The following chart summarizes development platform usage by industry segments.

Figure 3 Development Platform by Industry Segment

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<ul style="list-style-type: none"> • 27 per cent develop exclusively on PCs • None develop exclusively on Macintosh • 56 per cent developing on both Macintosh and PCs 	<ul style="list-style-type: none"> • 10 per cent exclusively developing on PCs • 19 per cent develop exclusively on Macintosh • 55 per cent both PCs and Macintosh 	<ul style="list-style-type: none"> • 20 per cent exclusively on PCs • 18 per cent exclusively on Macintosh • 54 per cent both PCs and Macintosh

Delivery media

Multimedia products are most often created for delivery on diskette or CD ROM, although development for kiosks is reported by 37 per cent of companies surveyed. Table 22 provides the details.

Table 22 Delivery Media Currently Developing For
Base: Companies involved in production

	TOTAL (194)	YEAR BEGAN MULTIMEDIA OPERATIONS		
		PRIOR TO 1991 (73)	1991 -93 (72)	PAST YEAR (42)
	%	%	%	%
Diskette (DOS/Mac)	61	71	63	45
CD ROM (DOS/Mac)	55	56	58	55
Kiosk	37	48	33	31
LAN/WAN	23	30	22	14
Distribution by telephone	17	15	18	14
CD ROM (CD-i)	13	14	14	12
Distribution by cable	10	14	6	12
Distribution by satellite	9	16	1	7
CD (3DO)	3	-	4	2
Other	16	14	18	17

Emerging distribution methods such as cable and telephone have already captured a significant share of developer attention. Proprietary game formats

such as 3DO have not yet generated a similar level of developer interest due mostly to the dearth of game developers in the Canadian industry today.

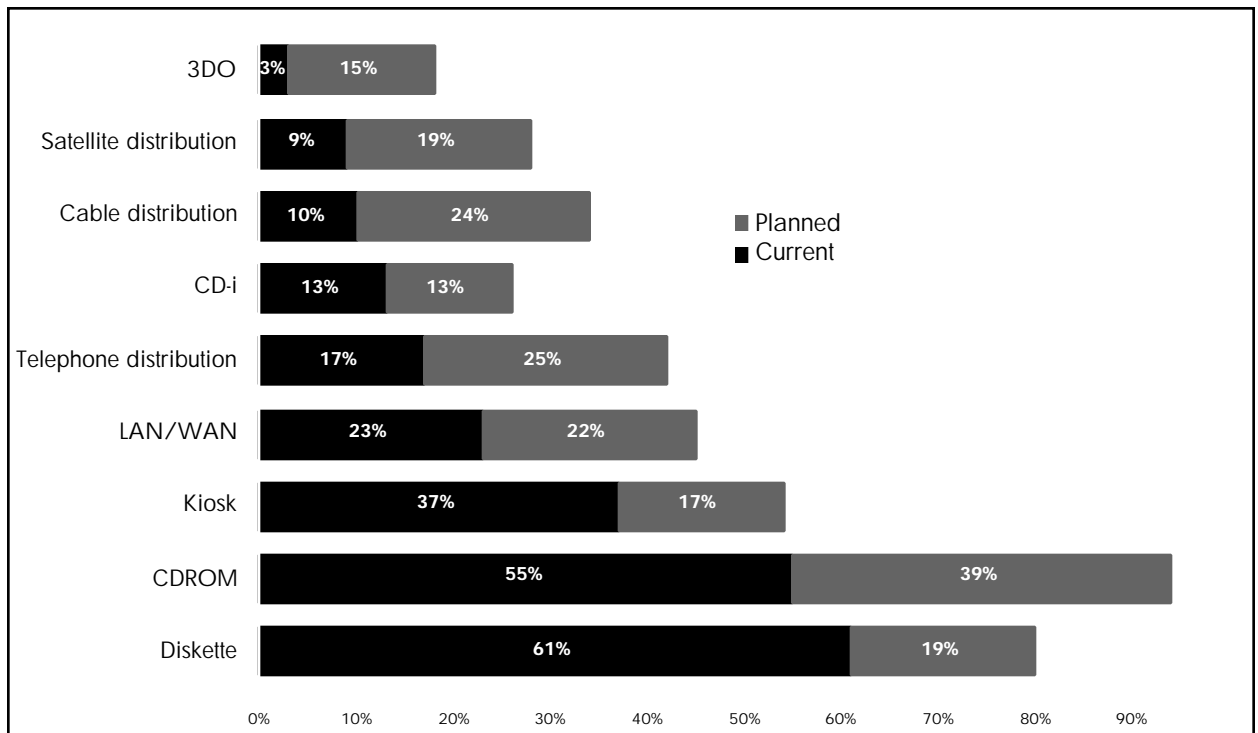
Delivery media development plans

The survey participants were asked to provide information as to their organization's current and planned delivery media development. These data are provided in the chart appearing as figure 4, below.

CDROM remains likely to account for a large share of the delivery platforms with 39 per cent of companies not currently active in this area expecting to become a CDROM developer in the next two years. Although diskette accounts for the largest share of delivery media in use currently, few companies not active already are expecting to be in the near term. These data suggest a reversal of positions with CDROM potentially becoming the dominant delivery media over the next two years.

Development of new delivery media and modes, such as cable and telephone, are expected to see rapid growth in the number of new entrants.

Figure 4 Delivery Media Current and Planned (Next Two Years)



Delivery media and industry content segments

The following chart summarizes the development environments in terms of delivery for each content specialization segment.

Figure 5 Delivery Methods by Industry Segment

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<ul style="list-style-type: none"> • Less likely to be developing for Macintosh • 76 per cent developing for diskette • 56 per cent developing of CD ROM—primarily Macintosh • 44 per cent for kiosk • 36 per cent for LAN/WAN networks • 22 per cent developing for CD-i • Marginal distribution by cable or satellite 	<ul style="list-style-type: none"> • 63 per cent developing for diskette—both Macintosh and DOS based • 60 per cent CD ROM—both DOS and Macintosh • 36 per cent kiosk • Marginal distribution by cable or satellite 	<ul style="list-style-type: none"> • 54 per cent developing for diskette • 56 per cent developing for CD ROM • More likely to be developing for DOS rather than Macintosh • 35 per cent kiosk • 24 per cent LAN/WAN networks • More likely to develop for satellite • Marginal distribution by cable

Marketing and Distribution

Distribution methods

Direct sales is the dominant form of distribution of multimedia products and services in the Canadian industry today. Most of the industry is focused on the business, education or government sectors where direct sales would be the more effective technique.

Table 23 Methods of Distribution Used

Base: All publishers

	TOTAL (131)
	%
Direct sales	71
Retail distribution	31
Direct mail/Catalogue	28
On-line	22
OEM bundling	14
Other	24
Don't know/Refused	10

Industry revenues by distribution method

According to the aggregate responses to the question of distribution of company revenue by product distribution method direct sales are the most important channel and will remain so for the near term, although diminishing slightly.

Table 24 Industry Revenue Proportions by Distribution Methods Current and Two Years Hence

Base: All publishers

	CURRENT (131)	FUTURE (131)
	%	%
On-line	7	22
Retail distribution	12	17
OEM bundling	3	4
Direct sales	44	34
Direct mail/catalogue	11	14
Other	12	9

The changes the industry expects on the distribution side will occur with on-line modes. It is anticipated that on-line distribution will grow three-fold over the next two years.

Indicated financial merit of distribution methods

Direct sales offer the highest financial rewards according to many of the survey participants (47 per cent). Other successful methods of distribution include retail, on-line and direct mail and catalogues.

Table 25 Most Financially Successful Distribution Methods

Base: All publishers

	TOTAL (131)
	%
Direct sales	47
Retail distribution	12
On-line	11
Direct mail/catalogue	10
OEM bundling	3
Other	8
Refused/don't know	9

Selling price for top selling products/titles

The survey participants, whose organisations were involved in publishing, were asked the selling price of their top selling multimedia title or product. The distribution of these responses is shown in table 26 below.

Table 26 Selling Price of Top Multimedia Product/Title

Base: Companies involved in publishing

	TOTAL (131)
	%
Under \$20	6
\$20 to \$39.99	5
\$40 to \$59.99	12
\$60 to \$79.99	10
\$80 to \$99.99	3
\$100 and over	40
Refused/Don't know	24

The high proportion of titles and products selling for \$100 or more reflects the industry’s corporate market focus at present. A market that is characterised by products with high value content.

Marketing and distribution issues and industry content segments

Marketing and distribution methods and practice vary widely across industry segments. The chart below illustrates these differences. Segments in which products and titles are predominantly directed at the business or educational markets are most likely to utilize direct sales techniques. The corporate segment in particular, expects an increase in direct sales.

Figure 6 Marketing and Distribution by Industry Segment

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<p><u>Methods Most Used</u></p> <ul style="list-style-type: none"> • 100 per cent direct sales • 27 per cent direct mail <p><u>In the Future</u></p> <ul style="list-style-type: none"> • Very little retail growth • 21 per cent increase in direct sales • Marginal increase in direct mail <p><u>Most Effective Method</u></p> <ul style="list-style-type: none"> • Direct Sales <p><u>Price of Product</u></p> <ul style="list-style-type: none"> • 69 per cent sell for more than \$100 	<p><u>Methods Most Used</u></p> <ul style="list-style-type: none"> • 69 per cent use direct sales • Most likely out of all segments to use retail (44 per cent) • Some use of direct mail/catalogue <p><u>In the Future</u></p> <ul style="list-style-type: none"> • Very little change in distribution methods • Some retail growth • Some direct mail growth <p><u>Most Effective Method</u></p> <ul style="list-style-type: none"> • Direct Sales and Direct Mail <p><u>Price of Product</u></p> <ul style="list-style-type: none"> • More likely mid range (\$40 to \$80) 	<p><u>Methods Most Used</u></p> <ul style="list-style-type: none"> • 41 per cent on-line distribution • 63 per cent use direct sales • 34 per cent use retail <p><u>In the Future</u></p> <ul style="list-style-type: none"> • Decrease in direct sales • Some retail growth • High growth on-line <p><u>Most Effective Method</u></p> <ul style="list-style-type: none"> • On-line distribution <p><u>Price of Product</u></p> <ul style="list-style-type: none"> • More likely to be less than \$20

Human Resources

In order to provide a more complete profile of the human resources structure within the industry, a series of questions were asked covering topics such as salaries, hiring trends and training. These questions were asked of both the production and publishing companies completing the survey.

It should be noted that those completing this survey may not necessarily have had direct access to their company's personnel files. It is possible, therefore, that responses to questions such as salary ranges, could be based upon estimates rather than actual salary data. Nonetheless, this human resources information is intended to provide as accurate an industry description as possible by drawing from the informed judgment of senior industry participants.

Pay ranges for salaried employees

Survey respondents were asked to identify salary ranges for three specified categories of employees. These categories are as follows:

1. Management, administration and sales;
2. Creative, authors, writers and designers, and;
3. Technical and programmers.

Within each of these categories, information was collected for both salaried and hourly employees. A *top end* and *bottom end* salary range was then specified. Table 27 below provide these data.

Table 27 Salary Ranges For Salaried Employees

Base: Companies with salaried employees

	MGMT/ ADMIN/SALES CREATIVE TECHNICAL					
	ADMIN/SALES		CREATIVE		TECHNICAL	
	TOP (172)	BOT (172)	TOP (146)	BOT (146)	TOP (148)	BOT (148)
	%	%	%	%	%	%
\$65,000 and over	45	2	16	–	8	–
\$35,000 to \$64,999	30	24	51	14	53	14
Under \$35,000	9	49	12	55	14	50
Refused	16	25	22	31	25	36

Given the multimedia industry's diversity by company size and type it is not surprising that salaries fall into several broad ranges. Management, sales and administration salaries range from over \$65,000 annually at the top end (45 per cent of mentions) down to under \$35,000 at the bottom end (49 per

cent). In all cases the percentages reported in this section of the report include the group of respondents who were unable or unwilling to report salary data.

Remuneration for the two other employment categories of creative and technical staff ranges lower than management. At the top end, these salaries tend to fall into the \$35,000 to less than \$65,000 range for both creative (51 per cent in this range) and technical staff (53 per cent in this range). Compared with the management group, a greater proportion of the bottom end salaries for the creative and technical staff fall into the under \$35,000 range (55 per cent and 50 per cent respectively).

Pay ranges for contract workers

Similar to pay for salaried staff, there is some dispersion in hourly pay for contract or part-time employees. While these employees are not a major factor in the management category, creative and technical personnel are compensated at rates ranging from over \$80 per hour at the top end for about one-fifth down to under \$35 per hour at the bottom end for about three-quarters. Hourly rate structures do not vary significantly between creative and technical staff.

Table 28 Salary Ranges for Contract Employees

Base: Companies with contract employees

	MGMT/ ADMIN/SALES						CREATIVE		TECHNICAL	
	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT		
	(31)	(31)	(57)	(57)	(55)	(55)	(55)	(55)		
	%	%	%	%	%	%	%	%		
Over \$80 per hour	20	6	19	4	18	2				
Between \$35 and \$80/hr	42	19	44	23	44	18				
Under \$35 per hour	35	52	35	61	33	65				
Refused	3	23	2	12	5	15				

In addition to questions about salary ranges for contract or part-time employees, the survey respondents were asked about the categories of employees hired on contract. Table 29, below, provides a listing of contract employees by job category. Indicative of a labour intensive and leading edge industry such as this one, contract positions are used by a majority of the firms surveyed.

Consistent with overall industry expectations of growth, a majority of the respondent companies report that they intend to hire in at least one of the three categories. On an individual category basis, almost two-thirds (62 per cent) report expectations of new technical hires, a similar proportion (59 per cent) for creative personnel and a lesser proportion (44 per cent) in management, administration or sales.

In terms of expected rate of personnel additions, the average number of new hires exceeds two for management and technical personnel and three for creative positions. These new positions tend to mirror existing staff/contract profiles. A slight majority (54 per cent) of anticipated management personnel would be full-time, while equivalent proportions of creative and technical positions would be contract employees.

When asked about the years of experience profile of anticipated new hires, the survey respondents are looking for management and creative personnel with at least four years experience, on average. Technical personnel with four years experience, on average, fit the ideal profile according to respondents.

The latter group are said to be the most difficult to find. Almost half (46 per cent) of respondents note that technical positions will be difficult to fill. Just under one-third (32 per cent) of respondents mention that they expect difficulty in hiring for creative or management positions.

Training

Most (75 per cent) multimedia companies report that there is some form of training provided to employees. Larger firms are more likely to offer training than smaller companies. For example, nine-in-ten companies with more than 30 employees note some sort of training. The proportion falls to just under seven-in-ten for smaller entities (i.e., those with fewer than 10 employees).

Table 31 Multimedia Training

Base: All companies

	TOTAL	COMPANY SIZE		
		LESS THAN 10	10-30	MORE THAN 30
	(203)	(94)	(63)	(30)
	%	%	%	%
Provide training	75	68	79	90
Provide informal training	64	57	67	77
Provide formal training	23	15	25	50

Do not provide training	24	31	19	10
Don't know/Refused	1	1	2	-

While a majority of companies provide training, much is described as informal on-the-job type of training. Formal training is restricted to just over half (56 per cent) of the larger firms with any training. A minority of smaller companies have any formal training programs in place currently.

Those companies providing any training, whether formal or informal, were asked about specific types of programs. In-house training programs topped the list, with approximately seven-in-ten of these firms offering this type of training. Next most common was access to external training such as seminars.

Table 32 Type of Multimedia Specific Training Employed

Base: Companies providing employee training

	TOTAL	COMPANY SIZE		
		LESS THAN 10	10-30	MORE THAN 30
	(153)	(64)	(50)	(27)
	%	%	%	%
In-house training programs	71	69	72	74
Industry specific or related seminars not organized by the company	57	52	60	70
Public educational institutions	39	39	44	33
Professional training institutions	29	25	26	52
Training consultants	22	14	26	37

Incidence of use ranged from seven-in-ten of larger firms using external training, down to about five-in-ten among the smaller companies. Other external sources of training and expertise are tapped, in addition to industry-specific seminars. These include, public educational institutions (by four-in-ten), private training institutions by three-in-ten and training consultants by two-in-ten firms with any type of training programs in place.

When asked if they had ever heard of training institutions that provide programs specifically directed to the multimedia industry, a majority (72 per cent) responded that they had. In fact, one-third (32 per cent) of companies providing training had hired employees who had been trained at one of these institutions. Larger firms are more likely to have hired graduates of these institutions than smaller companies.

Table 33 Hiring From Training Institutions

Base: Those aware of training institutions

	TOTAL	COMPANY SIZE		
		LESS THAN 10	10-30	MORE THAN 30
	(147)	(70)	(45)	(19)
	%	%	%	%
Have hired from institutions	32	29	40	42
Have not hired from institutions	67	70	60	58
Don't know/Refused	1	1	-	-

Those hiring such graduates are not universally pleased with the results, suggesting an opportunity to better align industry requirements with educational curricula and standards. Just under half (47 per cent) of companies hiring from these specialized institutions express a high degree of satisfaction (i.e., are *very satisfied*) with their hires.

In two related topic areas a majority of respondents (79 per cent) note that it is *very important* for someone in the multimedia industry to have both creative and technical skills, while 94 per cent agree that it is either *very* or *somewhat* difficult to find such people. A majority (53 per cent) note that this is a *very* difficult proposition.

Training and industry segments

The classification by type of industry segment shows that training needs and applications vary across the industry. The chart below illustrates these differences. Companies in the corporate and entertainment segments are more likely to have hired from specialized training institutions.

Figure 7 Industry Segment Usage of Training

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<ul style="list-style-type: none"> • 77 per cent use in-house training • Slightly more likely to use in-house training programs • 51 per cent use public education institutions • One third use professional training institutions • More likely to have hired from training institutions than education segment 	<ul style="list-style-type: none"> • More likely than other segments to use more expensive training methods along with in-house training • More likely to use professional training institutions (37 per cent) • More likely to use training consultants (25 per cent) than corporate segment • More likely to be aware of training institutions • Less likely to have hired from training institutions 	<ul style="list-style-type: none"> • 71 per cent use in-house training • 45 per cent use industry specific seminars or events • 38 per cent use public education institutions • 28 per cent use professional training institutions • 23 per cent use training consultants • More likely to have hired from training institutions than education segment • Less likely to be very satisfied with hires from training institutions

Finance

Research studies among Canadian businesses in general identify access to financing as a critical issue. The multimedia industry survey included several questions on this topic. Respondents were asked about sources of financing used and perceptions of financial intermediaries.

Sources of financing

A majority (67 per cent) of companies in this survey report having used at least one source of financing. There is some indication that medium-sized multimedia companies are just slightly more likely to have accessed financing than either smaller firms (i.e., those with fewer than 10 employees) or larger entities (over thirty employees). It may be that smaller start-ups are less likely to require or be accepted for financing, and that larger firms are better able to source funding internally.

When asked about sources of financing ever used, respondents list a variety of sources. Table 34 below provides details for all multimedia firms surveyed and a breakdown by size of company.

Table 34 Source of Financing Used

Base: Companies using financing

	TOTAL (135)	COMPANY SIZE		
		LESS THAN 10 (61)	10-30 (45)	MORE THAN 30 (19)
	%	%	%	%
Banks	71	66	76	90
Trust companies	3	3	2	5
Leasing company	28	26	36	32
Government	42	46	44	26
Venture capital firms	12	5	20	21
Personal	61	67	69	32
Informal investors	28	18	36	36

Among firms in total, financial intermediaries top the list. Banks are mentioned by just over seven-in-ten (71 per cent) as a funding source. Leasing companies (28 per cent), venture capital sources (12 per cent) and trust

companies (3 per cent) round out the private sector sources. Public sector sources are mentioned by just over four-in-ten (42 per cent).

Still, there appears to be a significant role for non-intermediary funding. Over six-in-ten (61 per cent) report use of personal financing, while almost three-in-ten describe informal investors as funding sources.

There are several differences by size of firm. Larger companies are far more likely to have accessed funding from banks than smaller companies. This may be attributable both to funding requirements and to ability to access bank credit lines. While companies in each size category are equally likely to have used leasing companies, financing access varies for venture capital firms and government sources. The former are more likely to be used by larger entities, while the latter is more apt to be used by smaller firms. Personal investment is more common among the smaller and medium sized firms. Third party investors appear to be infrequently used by the smaller firms.

External investor financing

Those using funding sources were asked what percentage of the company's funding comes from external sources. On average, 22 per cent of the company is funded externally. See table 35 below for details.

Table 35 Percentage of Company
Financed by External Source(s)

Base: Companies using financing

	TOTAL (135) %
Less than 10%	40
10% to 30%	20
31% to 50%	10
Over 50%	11
Don't know/Refused	19
Average	22

The plurality of answers are in the under ten per cent category. Only a small proportion of firms accessing funding report that over 50 per cent of the company is financed by outside investors.

Adequacy of financing

While most multimedia firms report use of external funding, a majority of survey respondents also report that their firms are not adequately financed. Indeed, almost two-thirds (62 per cent) of respondents report this. Perhaps not

surprisingly, smaller firms and those accessing funds through informal sources are more likely to report inadequate financing. In comparison, over half of larger companies report that they are not concerned about adequacy of financing. As noted previously, a major proportion of these larger firms have accessed bank lines of credit.

Table 36 Opinion of Adequacy of Company Financing

Base: Companies using financing

	TOTAL (135)	COMPANY SIZE		
		LESS THAN 10	10-30	MORE THAN 30
	(135)	(61)	(45)	(19)
	%	%	%	%
Company financed adequately	33	30	31	53
Company not financed adequately	62	69	60	47
Don't know/Refused	5	1	9	-

Assessment of banking relationship

All firms that have used outside financing were asked about their banking relationships. A series of rating questions were asked about banks or other financial institutions. The responses are shown below in table 38.

Table 37 Assessment of Banking Relationship

Base: Companies using banks and/or trust companies

	EXCELLENT (103)	GOOD (103)	FAIR (103)	POOR (103)
	%	%	%	%
Terms and facilities	17	30	26	10
Quality of advice	4	24	26	27
Understanding needs	5	18	35	24
Overall banking relationship	6	28	32	17

The results from this multimedia industry survey have not been benchmarked against more broadly-based business banking satisfaction evaluations. Still, there is some evidence in this survey to suggest that a significant proportion of the industry is less than satisfied with their banking relationship(s). One-third (34 per cent) report that their relationship is *excellent or good* overall.

In terms of specific characteristics, the survey respondents are more likely to be satisfied with the terms and facilities and less likely to be satisfied with their banking institution's ability to understand their needs. Here too a

comparison against more broadly-based business surveys might be required. This would help determine whether the multimedia industry's banking issues are industry-specific or symptomatic of general business concerns.

Financing expectations

All of the firms surveyed were asked whether or not they intended to seek outside financing within the next twelve months. In light of the expected growth reported by survey respondents it is not surprising that just under half (49 per cent) note that they intend to seek financing within the next year. Of these firms, the amount of financing being sought varies. Over half (55 per cent) these firms report that they will be seeking under a half million dollars, while smaller proportions name amounts in excess of this. Table 38, shown below, provides details.

Table 38 Amount of Financing Will Seek
Over The Next 12 Months
Base: Companies requiring financing

	TOTAL (99) %
Less than \$500,000	55
\$500,000 to \$999,999	21
\$1 million to \$4.9 million	15
\$5 million or more	4
Refused/Don't know	5

Smaller firms seeking financing appear to be more likely to report amounts below half a million dollars. Three-quarters of the smaller company mentions fall into this range. Conversely larger companies are more likely to report amounts in excess of one million dollars (by 54 per cent of larger firms).

Financing usage and expectations by industry segment

The chart below provides a detailed description of financing usage and requirements among the industry segments noted earlier.

Figure 8 Industry Segment Usage of Financing and Their Expectations

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<p><u>Sources of Financing</u></p> <ul style="list-style-type: none"> • 66 per cent use personal financing • 25 per cent use informal investors • 79 per cent use banks • If no outside financing used, more likely to be financed by combination of cash flow and principal contributions <p><u>Facilities</u></p> <ul style="list-style-type: none"> • More likely to rate terms and facilities as good or excellent • No one rates overall banking as excellent • 50 per cent rated overall as fair or poor <p><u>Seeking Financing</u></p> <ul style="list-style-type: none"> • 59 per cent seeking financing • 54 per cent under \$500,000 • 21 per cent over \$1 million 	<p><u>Sources of Financing</u></p> <ul style="list-style-type: none"> • Less likely to use banks • Less likely to use leasing companies • More likely to use government programs • 66 per cent use personal as a source • 40 per cent use informal investors • If no financing was used, more likely than other segments to be financed by cash flow <p><u>Facilities</u></p> <ul style="list-style-type: none"> • More likely to rate understanding of needs as good or excellent • Only segment to rate overall banking as excellent (10 per cent) • One third rated overall banking as fair or poor <p><u>Seeking Financing</u></p> <ul style="list-style-type: none"> • 53 per cent seeking financing • 56 per cent less than \$500,000 • 20 per cent more than \$1 million 	<p><u>Sources of Financing</u></p> <ul style="list-style-type: none"> • 50 per cent use personal financing • 25 per cent use informal investors • 75 per cent use banks • More likely to have less outside investor help • If no financing was used, sources of outside financing are cash flow & principal contributions <p><u>Facilities</u></p> <ul style="list-style-type: none"> • No one rated overall banking as excellent • More likely to rate overall banking as fair or poor (66 per cent) <p><u>Seeking Financing</u></p> <ul style="list-style-type: none"> • 40 per cent seeking financing • 56 per cent over \$500,000

Strategic Alliances

Main purpose for alliances

Survey respondents were asked a series of questions about strategic partnerships, alliances or joint ventures. A majority (73 per cent) of firms indicated that they had already established strategic alliances. While alliances might have been structured to achieve a variety of business objectives, the survey asked about the primary purpose of such ventures. Table 39 below provides a profile among the companies engaged in alliances.

Table 39 Main Purpose for Strategic Alliance

Base: Companies having created alliances

	TOTAL (149)	INDUSTRY ROLE	
		PRODUCTION (145)	PUBLISHING (101)
	%	%	%
Title development	31	30	29
Title publication/Distribution	15	15	13
Content provision/access	13	13	12
Marketing/Sales	15	15	17
Access to technology	14	14	16
Reseller or system integration	3	3	3
Other	10	10	11

Among those with alliances in place, almost one-third (31 per cent) mention “title development” with another 15 per cent noting that “content provision/access” is the primary purpose of joint ventures. On the distribution side, 15 per cent specifically mention “title publication/distribution”, while an equal proportion mention “marketing/sales”. Technology access and other reasons are also mentioned.

Industry sectors engaged in strategic alliances

There is a strong likelihood that strategic alliances will continue to be a factor in many multimedia company’s business plans and, in fact, might become more prevalent. When asked if joint venture arrangements will be established in the future, almost nine-in-ten (89 per cent) of all firms surveyed responded, “yes”.

Expected alliances would encompass all sectors of the industry including content providers, developers and distributors. Table 40 lists details for the top two expected alliances.

Table 40 Expected Alliance Partners
Top Two Choices

Base: Companies with intentions to form strategic alliance(s)

	TOTAL (180)	INDUSTRY ROLE	
		PRODUCTION (172)	PUBLISHING (117)
	%	%	%
Content owners	42	41	43
Distributors	34	35	43
Publishers	32	33	24
Developers	31	30	32
Cable companies	9	9	8
Telephone companies	11	11	11
Other	9	9	10
Refused	2	2	2

Most frequently mentioned alliances are those with “content owners” (by 42 per cent), “distributors” (34 per cent), “publishers” (32 per cent) or “developers” (31 per cent). Information carriers, such as telephone companies and cable companies, are also mentioned by some.

Strategic alliances and industry segments

Figure 9, shown below, provides a summary of industry segments' answers to the questions about strategic alliances.

Figure 9 Industry Segment History of Alliances and Expectations

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<p><u>Recent Alliances</u></p> <ul style="list-style-type: none"> • 71 per cent have formed alliances • Most common alliances are for title development and marketing/sales <p><u>Future Alliances</u></p> <ul style="list-style-type: none"> • 84 per cent plan to form an alliance in the future • Primarily with content owners(47 per cent), publishers (34 per cent) and distributors (31 per cent) 	<p><u>Recent Alliances</u></p> <ul style="list-style-type: none"> • 82 per cent have formed alliances • Most common alliances are for title development and title publishing <p><u>Future Alliances</u></p> <ul style="list-style-type: none"> • 91 per cent plan to form alliances in the future • Most likely with content owners (45 per cent), distributors (44 per cent) and publishers (34 per cent) • One quarter plan to form alliances with film/TV producers, and developers 	<p><u>Recent Alliances</u></p> <ul style="list-style-type: none"> • 65 per cent have formed alliances • Most common alliances are for title development, marketing/sales and access to technology <p><u>Future Alliances</u></p> <ul style="list-style-type: none"> • 87 per cent plan to form an alliance in the future • Most likely to be with content owners (38 per cent), for distribution (32 per cent), publishing (36 per cent) and developers (28 per cent) • Most likely of all segments to form alliances with telephone companies (15 per cent) and cable television companies (13 per cent)

Government

Government involvement in multimedia industry

The multimedia executives were asked about their perceptions of the Canadian federal government with respect to industry involvement. The survey respondents were asked about current levels of government involvement and their opinions on this involvement. There are wide gaps in perceptions between current involvement and the *ideal* level of government involvement.

In general, those surveyed do not perceive that the federal government is closely involved in specified relationships with the multimedia industry. Table 41 shows a listing of areas asked about and the proportion of respondents who feel that the federal government is “very involved” in each. With the exception of export development and legislation/regulation, 10 per cent or fewer of respondents judged the government to have this level of involvement.

Table 41 Perceived and Ideal Government Involvement

Base: All companies

	PERCEIVED VERY INVOLVED (203) %	VERY INVOLVED IS IDEAL (203) %	DIFFERENCE (203)
Tax credits	7	53	-46
Providing grants	10	46	-36
Providing loans	8	54	-46
Employment incentives	6	51	-45
Training incentives	8	57	-49
Aiding in export development	13	64	-51
Aiding in developing linkages/partnerships	6	36	-30
Involvement in standards development	5	30	-25
Improved access to strategic information	5	49	-44
Regulations/Legislation	13	17	-4

Still, multimedia executives perceive that the federal government should take a more active role—at least in specified areas. Much of the *gap* between the status quo and the desired level of involvement is on the financial front. For example, over half of respondents believe that the government should be very active in providing tax credits, loans, employment and training

incentives to the industry. But 10 per cent or fewer believe that the government is currently “very” active in these areas.

Other perceived gaps or opportunities for the federal government lie in access to strategic information, nurturing partnerships and development of standards. When asked about perceptions of regulatory involvement, fewer than two-in-ten (17 per cent) noted that the ideal situation would be the government being “very involved”.

Export development is singled out by the greatest proportion (64 per cent) of industry members for active government involvement.

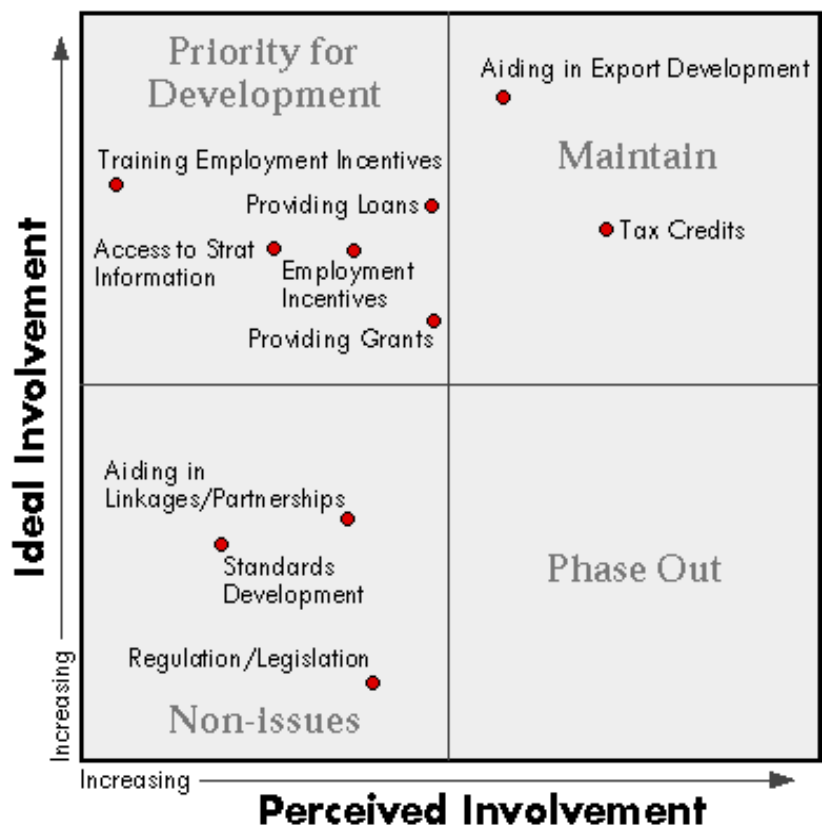
The chart below summarizes industry executives’ perceptions by comparing perceived involvement against expectations. As seen below, the priorities as identified by the industry include:

- Access to financing;
- Access to information;
- Training incentives;
- Employment incentives.

The four quadrants visually represented in figure 10 segregate the elements that should be provided by governmental agencies from those that promise little perceived utility value and hence potentially low usage. A description of the analytical technique employed in deriving the quadrants is offered below.

The index used for level of involvement is based on the procedure prevalent for combining *top box scores*. For such data, the weighted average is taken of the percentages in the top two response categories (e.g., *very* and *somewhat*), with the score in the first category weighted by a factor of 3 and the score in the second category by a factor of 1. In this study the weights were modified to -2 for the first category and 1 for the

Figure 10 Government Involvement
Perceived versus Ideal



second category. For example, if a respondent's score was 30 on *very involved* and 15 on *somewhat involved* the combined score would be 25—that is, 30 is multiplied by two and the result added to 15, to obtain 75, which is then divided by three.

Survey results suggest status quo maintenance

In the upper left quadrant of figure 10 are located the elements which industry representatives expect from government and its agencies. Effectively, expectations concerning the provision of financial incentives (i.e., in the form of grants, subsidies and other forms of financial assistance) must be a priority development initiative for government.

The survey respondents have low expectations on elements in the lower left quadrant. Resources are better directed at communicating or enhancing elements other than aiding in the development of linkages/partnerships, standards development and the creation of industry specific regulation/legislation.

The survey responses suggest more of a *status quo* maintenance role for the government in terms of: regulation, standards development and partnership assistance. This role also holds for export development and provision of tax credits.

Usage of government programs

In addition to questions about perceived levels of government involvement, the respondents were asked about government programs ever used. Table 42 lists these responses.

Table 42 Usage of Government Programs and Facilities

Base: All companies

	TOTAL (203)
	%
Small business start-up loans	15
Employment incentives	27
Grants	26
Federal Business Development Bank	9
Government procurement	12
Other government backed loans	13

While some companies have used various government programs, usage is generally below the anticipated “ideal” levels noted by respondents. This suggests that opportunities exist to leverage current programs or develop new public and private sector initiatives. The financial programs mentioned by

respondents include: employment incentives (27 per cent), grants (26 per cent), start-up loans (15 per cent) and others (by fewer than 15 per cent).

Perceptions of the role of government by industry segments

The chart below summarizes perceptions and usage levels by industry sector.

Figure 11 Industry Segment Perceptions of Government Role

Corporate Segment	Education Segment	Info/Ref/Ent Segment
<p><u>Involvement</u></p> <ul style="list-style-type: none"> • More likely to say government is not involved <p><u>Program Usage</u></p> <ul style="list-style-type: none"> • <i>Least likely to have used government grants—usage of other government initiatives about average</i> 	<p><u>Involvement</u></p> <ul style="list-style-type: none"> • More likely to say government is involved—particularly in providing loans and grants <p><u>Program Usage</u></p> <ul style="list-style-type: none"> • <i>Most likely to have used grants (32 per cent) and assistance from the Federal Business Development Bank</i> 	<p><u>Involvement</u></p> <ul style="list-style-type: none"> • Most likely to say government is not involved in employee incentives <p><u>Program Usage</u></p> <ul style="list-style-type: none"> • <i>Average usage of government programs and facilities</i>

Industry Issues

Respondents were asked to agree or disagree with a series of statements pertaining to the multimedia industry. Those who agreed that a particular statement represented an industry issue were asked how much impact this had on their business.

Availability of financial support was widely held as an important issue with most believing it to have a great deal of impact on their business. In addition, the cost for clearing rights to content usage were perceived as an important industry issue with a great deal of impact on business activities.

Table 43 Agreement with Issue and Perceived Impact on Business

Base: All companies

	TOTAL	IMPACT ON BUSINESS		
	AGREE (203)	GREAT DEAL	SOME	NONE
	%	%	%	%
Difficult to get financial support to create new multimedia titles	72	52	26	8
Too many incompatible delivery platforms	67	46	35	7
Difficulty finding experienced, well-trained employees	64	39	46	4
The cost of obtaining clearing rights for content is too high	57	43	33	10
Most production is publisher driven rather than developer driven	50	26	51	12
Available distribution channels are not meeting needs	46	52	33	2
Competitors lack business knowledge	40	17	63	10
Shelf life of products has been reduced	38	20	57	12
We bid low on projects because competitors undercut to win jobs	39	44	35	5
New competitors are undercutting in terms of job costing, so we decrease our margins to stay in business	37	34	45	3
There are a lack of projects coming in	36	36	52	4
Company lacks business knowledge	29	38	57	2

Issues segmentation

A segmentation analysis was conducted with the issues statements taking into account the companies level of agreement on the issue and whether or not this was having impact on their business. Four issue groupings were defined and give insight as to the specific issues that need to be addressed.

Segment 1: Distribution Driven

Companies in this segment are more inclined to agree with the following statements:

- Distribution channels are not meeting our needs.
- Shelf life has been reduced.
- Industry is publisher rather than production driven.
- There are too many incompatible delivery platforms.
- Difficult to get financial support for new titles.

Segment 2: Starving for Business

Companies in this segment are more inclined to agree with the following statements:

- There are a lack of projects coming in.
- New competitors are undercutting to win jobs.

Segment 3: Knowledge Poor

Companies in this segment are more inclined to agree with the following statements. Companies serving the corporate segment are more likely to share these attitudes.

- Our company lacks business knowledge.
- Our competitors lack business knowledge.

Segment 4: Rights Bottleneck

- The cost of obtaining clearing rights is too high.

The following table highlights, by way of a ranking scheme, these issue bundles against the three major industry segments.

Figure 12 Issues Segmentation by Content Specialization Segment

	Corporate Segment	Education Segment	Info/Ref/Ent Segment
Segment 1 : Distribution Driven	Ranked 2	Ranked 1	Ranked 1
Segment 2 : Starving for Business	Ranked 3	Ranked 2	Ranked 3
Segment 3 : Knowledge Poor	Ranked 1	Ranked 3	Ranked 4
Segment 4 : Rights Bottleneck	Ranked 4	Ranked 4	Ranked 2

Although each company was concerned with most of the issues raised in this section, the strength of this attitude varied by which segment they fell into.

Companies serving the corporate segment were most likely to be effected by a deficiency of business knowledge. This segment is less likely to be concerned with obtaining clearing rights for content as is the information, reference and entertainment segment.

For this segment and the education segment, issues of distribution predominate. For the education segment, the difficult business environment in terms of volume and competitive pressure is of secondary importance.

Industry View of IMAT

About two-thirds of respondents to the survey expected IMAT to become more involved in activities aimed directly at the membership. These encompassed market building initiatives (i.e., convening seminars and conferences) to member directed services such as job boards and networking forums.

Less than half (47 per cent) felt the need for IMAT to involve itself in the development of special interest groups. Far fewer thought IMAT should be concerned with the growth of the organization through the creation of additional association chapters.

Table 44 Expected Areas of IMAT Involvement

Base : All companies

	TOTAL (203)
	%
Forum for advertising jobs and projects available	65
Sponsor seminars and conferences	61
Networking forums and cooperatives	61
Acting as a voice and spokesperson to government	55
Creating special interest groups	47
Developing other chapters	32
Refused/Don't know	9