

**JUGGLING MAGAZINES, PEOPLE, AND COMPUTERS:  
IMPLEMENTING AN ERP SYSTEM AT CANADA WIDE MAGAZINES**

by

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PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PUBLISHING

in the

Faculty of Arts & Social Sciences

Publishing Program

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Fall 2004

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## **Abstract**

This paper analyses the ways in which Canada Wide Magazines & Communications Ltd. (“Canada Wide”), a Canadian magazine publishing company, used software solutions to improve its operations and streamline its business processes. It documents and examines the implementation of an enterprise resource planning (ERP) system, a software system that replaced all legacy database and information systems at Canada Wide with a single, centralized database system.

This paper details a case study of Canada Wide and the challenges it faced when it adopted the ERP system and underwent a system-wide change. Overall, this paper offers insight into: the production workflow at a magazine publishing company, the drawbacks of functional management, the introduction of a crucial data processing system, and the management of change.

It explores the decision-making process of planning for change, and the implementation process of an ERP system.

## **Acknowledgments**

I am grateful for the opportunity of working at Canada Wide. The experience has been extremely rewarding for me both in my education and career goals. I would like to extend my gratitude to the staff at Canada Wide for their support and encouragement. I would like to recognize the following people for their assistance on this paper:

- Suzy Williamson, Production Manager
- Millie Warren, Vice President of Accounting
- Carsten Arnold, IT Manager
- Jennifer Adsett, Production Coordinator/ Studio Manager
- Bee Fioraso, Systems Administrator

Thank-you also to Tina, Mom, and Dad for your unconditional patience, love, and encouragement. A special thank-you to my friends; for those who supported me, brought me bubble tea, or left me alone so I could work on this, thanks. I'm finally done.

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## Chapter I. Introduction

On March 3, 2004, Millie Warren<sup>1</sup> declared that Canada Wide Magazines and Communications Ltd. would “come into the 21<sup>st</sup> century!”<sup>2</sup> Canada Wide had just signed with a software company, Media Services Group (MSG), to purchase a new software system that would centralize its database and revolutionize the way it did business. Canada Wide took more than two years to decide to adopt this new system, called an enterprise resource planning (ERP) system. Staff from all departments and all levels were involved, spending hundreds of hours researching, meeting and planning how to use technology to better meet the needs of the company. They searched for ways to streamline company workflow, manage the organization, and stay competitive in a rapidly-evolving publishing industry. An ideal ERP system, people believed, would be able to do all of this. Trying to be forward-thinking, Canada Wide made the decision to go ahead with the company MSG, in adopting an ERP software system that would change the daily functions of nearly every department in the company.

This report examines the impact of the ERP software system on Canada Wide’s production workflow. It begins with a look at the structure of Canada Wide and the functions of the different departments in the company. The focus will be on the role of the production coordinator, in order to better understand how the departments interact on a daily basis and how work flows in magazine production. Next the report

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<sup>1</sup> Millie Warren is Vice President of Accounting and Administration at Canada Wide and project leader of the ERP implementation program.

<sup>2</sup> Millie Warren, “ERP Announcement,” email to Canada Wide ERP Committee, 3 March 2004.



will look at ERP systems and how Canada Wide came to determine its need for one. The paper will examine the decision-making processes of the staff and management at Canada Wide and the steps that the company took to implement the new system. Lastly, this report will examine the first few months of implementation of the ERP system, how staff has been handling the changes, and the extent to which the new system has met expectations. The report will not be examining the success of the new system; indeed, it will be years before anyone can properly assess its success. Instead, there will be a focus on the implementation process itself and recommendations on how the process can proceed to the next stage of implementation.

The intent of this paper is to describe how magazine publishing companies manage growth and technological change in today's competitive magazine publishing environment. Canada Wide provides an interesting case study as a magazine publishing company that used technological solutions to improve its business practices. The company's forward-thinking strategies, its decision-making process, and its ability to manage change are exemplified by its decision to implement the ERP system. This report should be of interest for those who manage a publishing organization, for magazine publishers trying to solve their own workflow problems, or for managers looking to implement system-wide changes.

## **A. Canada Wide Magazines & Communications Ltd.**

Minutes from Gilmore skytrain station in Burnaby, British Columbia is the head office of Canada Wide Magazines and Communications Ltd., the largest independent magazine publishing company in western Canada. Founded in 1976, Canada Wide's first

publication was *TVWeek Magazine*, a regional TV listings and entertainment magazine. Today the company publishes over thirty different publications, in genres ranging from business to consumer to trade and leisure. Of these, Canada Wide owns and publishes eight titles: *BCBusiness*, *GardenWise*, *BC Home*, *Pacific Golf*, *99North*, *Award*, *Grocer Today*, and *TV Week*. It produces magazines under contract for trades, including *Mining Review* for the mining industry and *TruckLogger* for the forestry industry. It is also the contract publisher for a variety of magazines, from *Waters* for the Vancouver Aquarium to *Westworld* for the automobile associations in B.C., Alberta, and Saskatchewan. The list continues to grow, as the company proves committed to President and CEO, Peter Legge's promise of growing a magazine per year. Now entering its twenty-ninth year, Canada Wide just adopted its thirtieth magazine.

### **i. Mission Statement**

In maintaining its success and healthy growth, Canada Wide's mission statement is to be "Western Canada's dynamic leader in the magazine publishing industry".<sup>3</sup> For the past few years, Canada Wide has had over \$20 million in annual sales.<sup>4</sup> Canada Wide has been able to remain competitive because of its dynamic approaches in facing business challenges. Its latest decision to adopt an ERP software system is in line with its commitment to being dynamic and forward-thinking in its business practices.

In addition to being a prosperous and successful publishing company, Canada Wide prides itself on offering a rewarding work environment for its employees. With over one hundred professionals working full-time at Canada Wide, it is a credit to the

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<sup>3</sup> Canada Wide Magazines & Communications Ltd., *Canada Wide Employee Handbook 2003 Edition*, company document, June 2004.

<sup>4</sup> Canada Wide Magazines & Communications Ltd., *Canada Wide at a Glance*, brochure, June 2004.

company that nearly a third of the employees have worked there for over ten years.<sup>5</sup> Half of those employees have been working at Canada Wide for fifteen and even twenty years. Their work ethic echoes the company's mission statement, which comprises seven core values: honesty, competency, vision, profitability, customer service, meaningful employment with a future, and community involvement. The final line of the company's mission statement reminds employees "success is the pursuit of a worthy ideal."<sup>6</sup>

## **ii. Basic Company Structure**

Canada Wide is structured as a hierarchy, headed by a president and vice-president, board of directors, officers, and department heads. There are six departments of varying sizes: sales, editorial, marketing and circulation, production, accounting and administration, and information technology (IT) services. Canada Wide also has a separate division called the Art Department, a full-service graphic design firm that produces advertising, corporate branding materials, and other products for a variety of clients. The sales department and production department are the two largest departments, with twenty-eight and twenty-five employees respectively. The IT services department is one of the smallest, with only two employees, but is a significant player in the day-to-day workflow of Canada Wide.

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<sup>5</sup> There are 15 employees who have worked at Canada Wide for 10 to 14 years; 11 employees who have worked for 15 to 19 years; and 4 employees who have worked for over 20 years.

<sup>6</sup> *Canada Wide at a Glance*.

## **B. The Departments at Canada Wide and Their Functions**

It is important to understand the functions of each department at Canada Wide and how they interact, to understand how the ERP system affects workflow. Below is a list of each department with a summary of its functions:

### **i. Sales**

The sales department is the largest department at Canada Wide, employing twenty-eight people. This department is in charge of selling advertisement space into Canada Wide's publications. Making up the biggest source of revenue, advertising sales determine much of the success of a magazine and, in turn, the company as a whole. The sales reps specialize in sales for one or a few titles and represent their own clients or regions. They work closely in teams to meet budget goals for their respective magazines.

Several sales coordinators assist the sales reps in this department, serving administrative and sales support roles. The sales people work closely with the production coordinators in the production department, as the coordinators organize the ad materials that go into the magazines. Sales staff also depend on the accounting staff to calculate commissions, bill and collect from clients, and assure that budget goals are being met for each issue. A lot of support and resources go towards the sales department at Canada Wide, as ad sales are the number one source of revenue.

### **ii. Production**

The production department is the second largest department at Canada Wide, employing twenty-five people. Responsible for the look and design of all the publications

produced at Canada Wide, the production team consists of art directors, assistant art directors, advertising designers, preflight technicians, and digital imaging technicians. Five production coordinators, a production manager, and the vice president of production provide the management, administrative support, and coordination for this department. While most work is divided and distributed among the employees by magazine title, there is much overlap and sharing of work within the department.

The production department interacts the most with the editorial department. During story meetings, for instance, the art directors work with the editors to plan the look and feel of the story. The production coordinators also interact with nearly all the other departments on a daily basis. They work with the sales group when creating ads and the marketing and circulation department in developing marketing materials. The coordinators then relay the instructions to the art directors, ad designers, or preflight technicians who do the actual design work.

### **iii. Editorial**

The editorial department is comprised of editors and staff writers who do everything from contracting writers and selecting stories to copy editing, creating flat plans, and determining the editorial focus of a magazine. Some editors work exclusively on one magazine while others split their time editing several publications. A few of the specialty publications, such as *Truck Logger* and *PeopleTalk* have an external editor who is not a full-time member of Canada Wide's editorial staff. Editors work closely with the art directors in the production department during the production stage of a magazine.

#### **iv. Circulation and Marketing**

The circulation and marketing department is in charge of all subscription sales and promotions to build and maintain subscribers. The staff in the circulation department are at the forefront of customer relations. Staff process hundreds of customers a day, tracking address changes, renewal notices, and subscription cancellations for all subscription lists of the magazines owned and operated by Canada Wide. In attracting new subscribers, the circulation and marketing department also participates in a number of initiatives ranging from coordinating booths at garden shows to making commercials for TV. The continuous marketing campaigns from this department keep the circulation sizes of the magazines steady and growing. Circulation is important as it is the second major source of revenue at Canada Wide, and because high circulation attracts more advertisers. The circulation department interacts closely with the accounting department.

#### **v. Accounting and Administration**

The accounting and administration department is in charge of all money matters at Canada Wide. They keep track of everything from employee salaries to ad insertion contracts to printer invoices to stationary and supplies. The accounting department plays a significant part in planning and budgeting. The accounting department also currently performs traffic duties, which entails processing and inputting insertion orders at order entry. This department works with nearly every department on a daily basis, especially the sales and circulation departments.

## **vi. Information Technology (IT) Services**

The IT department is in charge of virtually any electronic device at Canada Wide, including the computer systems, printers, and phones. The two people in the IT Services department install software, provide technical support and monitor all the activities on all the computer systems at Canada Wide. They play an important role in the day-to-day activities of the company as well as in many decision-making processes. For instance, the IT department facilitated the ERP project and its members are now an integral part of the implementation of the system.

These six departments are distinct in function and operate as separate units at Canada Wide. Yet they also interact closely and depend on each other in order to function properly. The work is broken down and organized at Canada Wide according to function. The hierarchal structure, functional departments, and work divided by individuals are the characteristics of a company that is functionally managed.

## **C. Functional Management Styles at Canada Wide**

Ralph Hancox describes functional management in relation to “the assembly line method of production”.<sup>7</sup> The functional method breaks down work into separate tasks that are assigned to individuals or groups of individuals. This works well in manufacturing environments. However, Hancox suggests that the functional method has also been applied to the publication process: “Writers write. Editors edit. Designers design. Production managers produce. Sales personnel sell. Administrators administer.”<sup>8</sup>

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<sup>7</sup> Ralph Hancox, *Topics in Publishing Management*, (Vancouver: Simon Fraser University, 2004), section 2.5.3.

<sup>8</sup> Ralph Hancox, *Topics*, section 2.5.3.

At Canada Wide, work is separated into departments and work flows in this “assembly line” process. By separating work into functions by department, the overall process is more easily managed. Functional management is used at Canada Wide for the following reasons. First, workers are specialized on one task, so individuals become more efficient at the tasks that they are responsible for. For instance, production coordinators, instead of sales reps, follow up with client’s ad materials, freeing up sales reps to do what they do best—making sales. Second, finances are more easily managed and assessed by function. Balancing budgets is a constant challenge in the magazine publishing industry. By breaking down the costs of a magazine by function, it is easier to create budgets and fiscally-manage the process. Third, the operations within a department are better managed. The head of the production department understands production the best and serves as a better advocate and representative of the interests of the production department. Fourth, in functional organizations, it is easier to hold people responsible for their actions. By breaking up tasks into individual functions, it is easier to know who is in charge of what. People can be held accountable for their function and responsibility.

Representing the functional style, even the physical layout of Canada Wide approximates the way workflows from department to department. Made up of a maze of offices, cubicles, and desks, the departments at Canada Wide are side-by-side but separate. Employees are grouped and sit in their respective departments: administration, accounting, marketing, circulation, editorial, production, and sales. Employees are grouped by function rather than by magazine.



While there is much interaction between departments, employees work predominately within their own department. Other than managers and administrators, employees know little of the operations of other departments beyond what is relevant to their own work. Even sales and production, two departments that interact with each other on a constant basis at Canada Wide, do not completely understand the functions of the other.

In companies where work is divided by function, the employees from different departments interact but exchange information mainly on a 'need to know' basis.<sup>9</sup> Things may be kept separate, as Hancox suggests, to “seal off” a function from unwelcome interference”.<sup>10</sup> The departments may be set up by function but the overlapping ambiguity of some of these roles can cause territorial conflicts. Some sales reps who are protecting client interests, for instance, may not want to pass along their contact information to a third person, even though it is the job of the coordinator to follow up with the clients. The reps may be trying to protect their clients from unwelcome interference on their sale, although it makes the coordinator's work more difficult.

Other territorial conflicts result from departmental property. Once, a worker from the circulation and marketing department was “caught” using a production workstation to scan some marketing material. This set off great concern for management, as they feared that a person outside of the department could cause some accidental damage. That employee was told not to use production equipment anymore.

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<sup>9</sup> Ralph Hancox, *Topics*, section 3.1.1

<sup>10</sup> Ralph Hancox, *Topics*, section 3.1.1

The cleavage between departments goes deeper than differences in function and separation of equipment. At Canada Wide, information gaps further separate departments. The information gaps between departments are due partly to a lack of communication between people, and partly to having separate databases and computer systems for each department. Every department is separate at Canada Wide, using its own specialized software, computer systems, and computer platforms. Not all departments can share applications or access each other's databases. Information is completely decentralized. For six departments, there are six, if not more, computer operating systems. Below is a summary of the different computer systems at Canada Wide and how each department uses these systems.

- In the sales department, the sales reps operate on PC's and use a customized Filemaker databases to track their sales contact information. Each Filemaker database is customized according to magazine and while all the sales reps have access to their own magazines' databases, some of the reps do not use the software. Instead, sales reps choose to use any of a variety of software, including Microsoft Outlook, Microsoft Excel or Act!. These systems remain on the sales reps' desktop and do not interface with any other systems or databases.
- In the production department, the art directors and ad designers use software such as Quark, Photoshop and Illustrator and operate solely on Macs. The art directors often share work and files with each other. As such, their work is closely integrated on a central production server.
- The production coordinators, who are also a part of the production department, operate on PC's and have no access to this Mac-based system. They cannot view

any design work because they are not connected to the Mac network. The production coordinators work closely with the sales department but use a customized Filemaker docket system that is completely separate from the sales department.

- The editorial department is similarly unable to view design work as they do not have any design software installed on their computers. Although they operate mainly on Macs, editorial staff cannot access the files created by the production department. The editors and art directors interact closely but can only share Microsoft Word files. Art directors print out proofs for the editors to check, even for minor corrections.
- The accounting and administration department works on PC's and uses an independent software system as well. The accounting department uses AMS, custom financial and accounting software that does not interface with any other system. Production coordinators have limited access to information on AMS.
- The circulation department uses a sophisticated circulation software tool called Circworks, which they adopted about three years ago. This software is designed by the Media Services Group Ltd. (MSG) and interfaces with other MSG products. However, until the decision was made to purchase ERP software from MSG, Circworks could not interface with any other software in the company.

The separation and specialization of computer systems are, in large part, necessarily set up this way. In line with the functional management style, the systems are tailored to the functions of the respective department. AMS is a specialized accounting tool and

would not be appropriate for the sales department. Circworks is specific to circulation and Filemaker has been customized for use by the production coordinators. As Canada Wide's organization is divided into function-based departments, the computer systems are similarly divided by function.

## **D. Weaknesses of Functional Management**

In a large company like Canada Wide, functional management is an effective way of managing the different departments and their different functions. However, the separate departments and hierarchical structure of a functional environment can also cause weaknesses in terms of communication and organization of work. At Canada Wide, these weaknesses are exaggerated by the independent computer systems, making intradepartmental communication even more problematic. Below is a list of common weaknesses of functional management<sup>11</sup>, and how they affect Canada Wide's workflow:

- *In functional management, the roles are rigid.* At Canada Wide there are no employees, other than some in management roles, who would consider themselves as part of more than one department. The roles are very separate and specialized and employees rarely change roles or substitute for one another. Even in times when someone is sick and it is necessary to help each other, it is difficult to find someone to substitute in.
- *Interdepartmental conflicts occur over goals.* As mentioned, there are disagreements between the different departments at Canada Wide. These may arise from the different goals of the different departments. The sales department, for instance, is

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<sup>11</sup> Ralph Hancox, *Topics*, section 3.1.1

focused on selling ads and reaching certain money goals. The production coordinators, on the other hand, are focused on meeting deadlines for magazine production. Sometimes the sales department may ask for a couple extra days for their sales schedule so that they can bring in just a bit more money, but this request conflicts with the production schedule of getting the magazine completed by a certain date. There are strong differences between sales and accounting as well. One staff member describes the relationship between the sales and accounting departments as being like “oil and water”.<sup>12</sup> Accounting, after all, calculates the commissions for the sales reps, which determines their monthly pay cheques.

- *There is a lack of interaction.* Although everyone is warm and friendly, there is a lack of interaction between staff members from different departments at Canada Wide. People’s jobs allow them to interact and function on different levels, and unless someone *needs* to talk to someone else in another department, they may never do so. Most interaction occurs at planned meetings or out of necessity.
- *There is an attitude that “management knows best”.* Due to the hierarchical nature of functional management, the employees adhere to the idea that managers make all the decisions. They do not take initiative far beyond their own roles, especially not without the approval of a manager. Employees also do not question a manager’s authority. When the question of adopting an ERP system first came up at Canada Wide, it was important to first convince the managers to support the idea. Although the rest of the staff were informed about ERP at the same time, it

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<sup>12</sup> Carsten Arnold, interview by Gloria Ma, Burnaby, B.C., 8 October 2004.

would not matter until later how they felt about ERP as long as the managers supported the idea.

- *In functional roles, people will avoid taking responsibility.* At Canada Wide, people pass responsibility over to someone else citing “it’s not my job” or “it’s their responsibility.” Even small tasks are passed along in this manner because people feel that it is inappropriate to take responsibility for someone else. This again relates to the rigid roles of the functional style of management.
- *Functional management is not good for change.* This has become evident at Canada Wide as the company is trying to undergo many changes due to the implementation of the new system. The company has had troubles in these early months of implementation, which will be explored later.

The above issues are weaknesses in Canada Wide’s organization. The plan was to adopt the ERP system, a process-oriented tool, to strengthen the workflow process and business practices of the company.

The next chapter looks at the current workflow at Canada Wide. It outlines how work is organized and how it flows from department to department, concentrating specifically on the process of handling an advertising client. The next chapter will help explain why the integration of information with an ERP system is important to this process.

## **Chapter II. A Description of Workflow at Canada Wide**

At Canada Wide, the production coordinator serves as a main point-person for sales reps, clients, and printers. The function of the production coordinator is to connect the work of each of the departments. As such, the role of the production coordinator provides a unique perspective on workflows and workflow integration at Canada Wide. This chapter focuses on the workflow process of handling an advertisement insertion order, from the perspective of a production coordinator.

### **A. The Role of the Production Coordinator**

In late June 2004, I joined Canada Wide Magazines as a fifth and the newest production coordinator. While Canada Wide employed four production coordinators for the previous five years, the Vice President of Production and Production Manager decided that with recent growth and restructuring, the company would need an additional production coordinator.

The role of the production coordinator is to coordinate the delivery of the final magazine product to the printers. The art directors create the actual design and layout and the editors edit or write the actual text and words, but the production coordinator ensures that the magazine is actually assembled and gets printed. A large part of this process is making sure that proofs are checked and corrected by all participants at various stages before the files are finalized. Another major job is ad coordination, which

entails working with advertising clients to create ads and to receive and organize their supplied ad materials. This part of the coordinator's job involves customer service, communicating with clients and designers, and keeping everyone on schedule and on deadline. The coordinator works extensively with the sales reps in the sales department and the advertising design team within the production department so that the ads are produced on time and to specifications.

A production coordinator may juggle half-a-dozen different publications going through production at one time. In late September, I was working on seven publications at the same time: they were *GardenWise*, *HortWest*, two directories and three guide books for Tourism BC. The work can be overwhelming at times, coordinating a large number of ads and clients in so many magazines. Organization, communication, and access to information are key to production workflow.

## **B. A Step-by-Step Look at Production Workflow**

The production schedule of a magazine, often created a year in advance of the magazine's actual publication date, is essential to the workflow at Canada Wide. The schedule determines the amount of time the project will be at a particular stage, and when it should move to the next stage. The schedule is a critical part of a magazine's project workflow. It details the deadline of ad materials from clients, the date when the proofs are circulated, and the delivery date of files to the printer. The production schedule is essential to many of the processes at Canada Wide because it indicates deadlines for departments like circulation and accounting as well as the critical intercepts for the people who are directly involved in magazine production. The



production coordinator is one of the key people ensuring that the magazine stays on schedule.

Depending on the size, content, and complexity of the magazine, production on a magazine can begin anywhere from a couple of weeks to several months before the delivery deadline. The Winter 2004 issue of *GardenWise*, for instance, began production in early September, but was not delivered to customer homes until the beginning of November. Other directories and client projects may take longer than this, as the schedule considers the time for client approval and extra days for proofing.

The production schedule begins with the closing date of advertising sales; only after the ad sales are finished can the production of the magazine begin. The art directors and editors start many months ahead of an issue deadline planning stories and photos, but do not begin doing layout or design until production is scheduled to begin. During the production period, the art directors design, the editors edit, and the production coordinator collects and processes ads. Most magazines at Canada Wide spend a few weeks in production. During this time, many people contribute to the final product.

Near completion of the production process, final proofs of each page of the magazine are printed and circulated. The production coordinator makes sure that these proofs are checked by everyone who has contributed to the publication. This includes people from all departments: sales, circulation, editorial, and production. Each must check these proofs before the magazine can be printed. By the end of this process, a dozen or more staff members will have signed off on the proofs. The production coordinator then guides the proofs through the next few stages, in which corrections are done, new proofs are made, final files are sent to the printer, colour proofs are

received, more checks are done, a final set of corrections is made, and then the final approval is given for the printer to print the magazine.

Publications, more often than not, stay on schedule and are shipped off on time, even when problems occur that delay production. Art directors may get sick, ads may come in late, or clients may request many changes that need to be accommodated in very little time. In fact, because there are so many variables in magazine publishing, it is rare that the production process goes perfectly smoothly. There is always a late ad or a late change discovered at the final proofing stage. Even with a dozen sets of eyes checking a magazine before it goes to print, mistakes can be made. The magazine publishing process is unpredictable by nature, and as such, it is particularly challenging for a large company like Canada Wide to be functionally-managed.

### **C. Current<sup>13</sup> Daily Workflow of the Production Coordinator**

The first duty of the production coordinator following the close of sales, is to contact all of the ad clients booked into that particular issue. In most situations, this means following up with a client exactly from the point where the sales rep left off selling the ad. However, because of the separate computer systems at Canada Wide, production coordinators cannot access the client contact information that the sales reps have in their computer system—even though the coordinators also use Filemaker as part of their daily workflow. Instead, production coordinators wait. They wait as copies of the paper contract make their journey from in-basket to in-basket around the different departments at Canada Wide. Sometimes this process takes many days,

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<sup>13</sup> This section uses the term “current” to refer to the workflow process at Canada Wide before the ERP system was implemented. The distinction between workflow before and after the ERP system should become clearer in the section on the operational realities of the ERP system.

sometimes even more. From beginning to end, this describes the process workflow of an insertion contract at Canada Wide, before the switch to the ERP system:

- At the end of a sale, the sales rep writes up and processes a paper insertion contract with his/her advertising client. The insertion contracts are filled out in quadruplicate, for the four parties that need it: the client, the sales rep, the production coordinator, and accounting. The information from this contract is also entered into the sales reps' contact management system, in some cases into Filemaker or Excel or a Palm Pilot, whichever is the rep's personal preference.
- The paper contract is signed by the client and then goes to the Credit Manager for approval. The Credit Manager checks the ad client's credit history. Usually the credit check can be made quite quickly, but if there are problems, then the contract is held up and some follow-up on the client's history needs to be made. Because the client's history does not exist on any single database, it may take some time to figure out how to proceed.
- The contract is then passed to traffic, a position shared by two staff members in the accounting department. The job of traffic is to input the information from the hand-written insertion contracts into a computer running the legacy AMS system. Traffic also breaks up the contract into its four separate pages and distributes them to the appropriate party.
- Once all the information from all of the contracts is entered into the AMS system, and the magazine has closed its ad sales for that issue, traffic creates a "run sheet", a list of all the ads sold into a magazine. The run sheet is generic; the information on it serves the basic needs of all the sales reps, sales managers,

production coordinators, and editors, who use the run sheet to help them create the flat plan of an issue. The information on the run sheet includes: the advertiser's name, the size and shape of the ad, the colour, and the revenue generated by the ad.

- Traffic prints out the run sheets (on a dot matrix printer, no less) and then gives them back to the sales manager or sales rep. Sales checks over this list, adding any late additions and making any notes corrections specific *by hand*. Traffic also prints a rep sheet, a report that lists all the ad bookings in an issue, sorted by sales rep. These are passed to the sales department as well. The printed lists also do not contain the names or contacts of any of the ad clients. As contact names are critical for the production coordinator's work, the sales rep must hand-write all of this information on the rep sheet, in addition to any production details or special instructions. The sales reps look up the client contact name, phone, and fax numbers, on their own contact management system or it from the contract to fill in these entries. If a late ad sale is made after the rep sheet has been printed, a new rep sheet is not printed. Instead, everything is hand-written in on pieces of paper.
- When the rep sheet is finally passed on to the production coordinator, the coordinator can begin doing her job. The coordinator contacts each client on the list and follows up on his or her ad materials. If the client wants Canada Wide's in-house advertising department to create the ad, the coordinator must open a docket in the production department's customized Filemaker system. This is yet another computer system in which ad client information must be entered.

- After a magazine is completed and printed, the accounting department handles client billing. The accounting department must include any production charges from the advertising department. Printed summaries from production's Filemaker program again need to work their way from in-basket to in-basket before reaching the accounting department. The print-out signals to the accounting department that the magazine is closed and the billing process may begin. At least at this point, accounting can access and check the production charges on the production department's computer system as this component of the system is accessible to both departments.

This is the process of an ad as it moves from department to department to department, in Canada Wide's "assembly line" of ad production. This does not consider the added complexity of ads that are designed in-house or are supplied incorrectly. While the process for handling an ad for some of the contract publications is a bit different, every ad that goes through Canada Wide is processed in this way.

#### **D. Weaknesses of the Current Workflow**

The inefficient paper trail detailed above works around the obstacles caused by Canada Wide's separate computer systems. When considering ERP as a potential software solution, management believed that the computer system could by replace the paper inefficiencies, open access to information, and streamline workflow. They recognized these weaknesses caused by the current workflow:

- First, it creates duplication of work. The same client information must be input two or three times into two or three different computer systems. This makes the system inefficient, slow, and redundant.
- Second, multi-entry work increases the risk of error. Spelling mistakes and typos are greatly problematic, especially when phone numbers are input incorrectly. Errors also occur when different naming conventions are used. The British Columbia Landscape and Nurseries Association, for instance, is referred to as the BCLNA in one system but by its full name in another. A lot of time is wasted in trying to track down information and compare notes from one department with another, when they are referring to the same thing with different names.
- Third, the multi-entry system creates information gaps. In some cases, the sales rep uses a different contact person than the production coordinator. This is because the person who books the ad may not necessarily be the same person who designs the ad. The buyer will work with the sales department and the designer will work with the production coordinator. Because the systems are independent at Canada Wide, the coordinators may have different names and contact numbers for an advertiser than the sales reps and whenever a difficulty arises confusion may reign.
- Fourth, the process is slow. It can take many days between the signing of a contract and the production coordinator receiving the rep sheet to indicate she can begin her job. For a weekly publication like *TVWeek*, a quick turnaround is critical for the magazine to be completed on time.

- Fifth, workers must wait for another department to finish its work before beginning their own. Because the production coordinator must wait for the sales rep and the traffic department to finish their work first, the coordinator cannot do much until the rep sheet comes to her in-basket and signals that she may begin her job. If she receives a file early from a client, she cannot process it because she has no insertion order for it, and thus no information. Often, a production coordinator cannot work ahead because she is waiting for the rep sheet, and is then overwhelmed when all the materials come through at once. If the rep sheets are late, then the whole process is delayed even further.
- Sixth, no one in the company truly knows what the status of the insertion order is at any given point. Sales people do not know when the ad materials have arrived; they call the production coordinators to ask them. Production coordinators do not know what new ads are sold; they wait for the paper work to come in from traffic. Frustrated customers who are trying to track their ad materials get transferred to different people in the company before their questions can be answered.
- Seventh, information is incomplete. Sales reps do not always fill in client contact information on a contract thoroughly. It becomes the job of the production coordinator to track down the missing information
- Eighth, late ads cause major disruption. If a sales rep makes a late sale, the insertion contract must be rushed through all the different steps from accounting to the production coordinator so that the coordinator may get the ad materials in on time before the magazine goes to print. To accommodate these “rush

orders," the accountant, the production coordinator, and anyone else who interacts with the contract basically must stop whatever he or she is doing and process the late ad. If the sales rep neglects to communicate to anyone that he has made a late sale, which happens often, then the coordinator will have even less time to manage it. One late ad can hold back an entire magazine.

In sum, the workflow at Canada Wide has its inefficiencies. Some of these inefficiencies are a direct cause of the separate computer systems between departments. Underlying this whole process is Canada Wide's functional management style, as departments are broken down into separate units. When the administration looked to possible technological solutions to improve the company's workflow, they decided to adopt an ERP software system. The next chapter looks at the process that the company went through in deciding on which ERP system to implement and the features that they needed in an ERP to fix the inefficiencies that they had with the current workflows.



## **Chapter III. The Introduction of an ERP System at Canada Wide**

Previous chapters have described the functions of the departments at Canada Wide and how people interact and operate within the current workflow. The ERP system was brought in, effectively to change it all. This chapter looks at the decision-making processes that led up to the decision to adopt the ERP at Canada Wide.

### **A. Identifying the Need for Change**

It became evident that Canada Wide needed to find a new system that could handle the growing needs and demands of the company's expanding publishing business. The accounting department at Canada Wide had been using the same software system, AMS, for years when it realized that the system was reaching its limits. The AMS system could not generate the types of reports that the accounting, sales, and production departments required, nor could it handle extensive amounts of information. When the system started stalling and even crashing, the accounting department knew that it was time to find a new accounting software system.

Other departments also complained about inefficiencies in their software programs. The sales department, for instance, complained about having to hand-write their insertion contracts and rep sheets. They wanted a computer software program that could create automatic insertion contracts to help cut down on the administrative work that they needed to do.

While the departments complained about shortfalls in their software systems, the IT department began investigating a more holistic solution.<sup>14</sup> IT manager Carsten Arnold observed the inefficiencies of the separate computer systems and wanted to find solutions that would eliminate the divisions as well as provide the upgraded software services that the individual departments required. He looked at available software solutions. Software vendors had a variety of partial and fully-integrated software systems on the market. These systems could integrate the databases of the different departments into one. Arnold believed that such a system could solve many of Canada Wide's problems, including the workflow inefficiencies caused by the separate computer systems. In early November 2002, Arnold, along with the Vice President of Administration Millie Warren initiated the proposal to adopt an ERP system at Canada Wide.

## **B. A Description of ERP (Enterprise Resource Planning)**

Enterprise resource planning (ERP) means integration. ERP software is designed to integrate all the departments and functions of a company into one single system that can meet the particular needs of each department.<sup>15</sup> At Canada Wide, this would mean that one computer system would be used for all the functions of the sales, production, accounting, and circulation departments. Although the functions of each of these departments are quite different, an ERP system can accommodate the differences by using different modules for different departments. The sales reps operate on a sales module targeted towards their needs while the accountants operate on an accounting

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<sup>14</sup> Carsten Arnold, interview by Gloria Ma, Burnaby, B.C., 8 October 2004.

<sup>15</sup> Christopher Koch, "The ABC's of ERP," *ERP Research Center: CIO.com* [online], 2004.

module targeted towards their accounting needs. All the information from these separate modules is stored in one central database.

ERP systems emerged in the early 1990's, a technical evolution to accommodate computer systems that were becoming more and more sophisticated. At the same time, business managers were also adopting holistic approaches to running their companies. As ERP expert Carol Ptak suggests, at that time, "integrated resource management was the focus for a competitive company".<sup>16</sup> The idea behind ERP is that in order to achieve company goals, all of the employees within the company should be focused on that same goal. To be competitive, employees need to be empowered with knowledge; and to make good decisions, employees need good information. Having a single management system with a single repository of data can "provide valuable information on demand".<sup>17</sup> ERP software systems are the answer to businesses that see the competitive advantages of having an integrated information system.

ERP systems completely eliminate the need for separate systems. "The magic" that Christopher Koch sees with an ERP system is that "people in these different departments all see the same information and can update it".<sup>18</sup> With ERP, a sales rep can check, at the point of sale, what a client's credit rating is, if a client's ad materials are in, if production charges are included in an ad, and a number of other things beyond what he or she used to know. Information is communicated efficiently, instantly and with fewer errors. In a functional environment like Canada Wide's, where the departments

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<sup>16</sup> Carol A. Ptak, *ERP: Tools, Techniques, and Applications for Integrating the Supply Chain. Second Edition.* (New York: St. Lucie Press, 2004), 7.

<sup>17</sup> Carol A. Ptak, *ERP*, 11.

<sup>18</sup> Christopher Koch, "The ABC's of ERP."

operate separately but client information needs to be shared, the ERP system can bring the entire process together.

Companies that switch to ERP systems are often looking for the same things. Fiona Fui-Hoon Nah surveyed dozens of companies who made the switch to ERP.<sup>19</sup> Below is a list of the six most common motivations for adopting an ERP system, and how Canada Wide fits into these motivations:

- *The need for a common platform.* Canada Wide's IT manager articulated the inefficiencies of the separate computer systems. Bridging the gaps between computer systems by having a central database was seen as one of the biggest advantages of the ERP system for Canada Wide.
- *Process improvement.* At Canada Wide, the current workflow process is slow, inefficient, and vulnerable to error. The ERP system is seen as something that will greatly improve the entire work process.
- *Data visibility.* By centralizing information, client data and information would be more accessible to everyone working in the different departments. Everyone would have access to the information that he or she needs.
- *Operating cost reductions.* As a fiscally responsible company, Canada Wide has looked at the long-term benefits of the ERP and calculated its potential savings. Many in the company expect that the ERP system will save the company a lot of time and money once the system is fully-implemented.

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<sup>19</sup> Fiona Fui-Hoon Nah, ed., *Enterprise Resource Planning Solutions and Management*, Idea Group Publishing [online], 2002.

- *Increased customer responsiveness.* The ERP system would narrow the information gaps between departments, improving client service overall. In this system, the sales department would have access to the information that the production department has, giving everyone the ability to serve customers better.
- *Improved strategic decision-making.* The ERP system is seen as a tool that could be used to track business progress and calculate the costs of a function. ERP would be a key accounting tool that would help company management in budgeting and making strategic business and financial decisions.

### **C. The Process of Adopting an ERP System**

Millie Warren, acting as ERP Project Manager and Carsten Arnold, acting as Project Facilitator led the long process of finding an appropriate ERP system that would meet Canada Wide's specific needs. The project leaders created an ERP committee, made up of middle management and senior staff from each department in the company. The ERP committee met once a week for one to two hours to discuss matters related to the ERP. The purpose was to get the entire staff, or at the very least, the staff who would be using the new system, to buy-in to the idea of an ERP system. For the members of the ERP Committee, these meetings were quite time-consuming. Some of the members did not want to be part of the meetings or the ERP process, while others appreciated the opportunity to be involved in such an important decision. For the project leaders, given the magnitude of an ERP project, the meetings were a conscientious effort to get people involved. This project would completely change the workflow of the entire company and they needed the employees to buy-in to it.

One of the first goals of the ERP committee was to build a solid understanding of every detail of every function at Canada Wide. The members of the ERP committee were asked to create business process definitions, which entailed providing very specific descriptions of the job functions of each department. Every procedure in every department was recorded; every paper form was documented and numbered. This was the first time that Canada Wide had ever collected these kinds of data. At the end of this compilation stage, the project leaders had pages upon pages of material that provided in exact detail how business was done at Canada Wide.

These details were used to create a request for proposals (RFP), a formal business request directed to ERP software vendors. The RFP listed all of the functions that Canada Wide wanted in an ERP system. By sending an RFP to a software vendor, Canada Wide was indicating that they were interested in their company's products, that they wanted the company to respond with a list of their services, and to submit a bid for their business.

The RFP was a significant undertaking for Canada Wide. For the first time, all of the daily functions of each of the departments were recorded in one place. For the first time, people gained insight into the whole company and its functions rather than just one or two departments and how they interacted. The members of the ERP committee fully realized the redundancies in the current workflow. They became hopeful that an ERP system would eliminate many of these unnecessary functions and truly streamline the company's functions.

The two project leaders examined the detailed list of job functions at Canada Wide and tried to pare it down into a list of requirements for the RFP. It soon became evident

that an ERP system could not do everything that Canada Wide wanted it to do. Some of the daily procedures of the production coordinator, for instance, simply did not fit into ERP software. As production coordinator Jennifer Adsett summarizes this whole process: “At first we were asked to make a wish list of everything we wanted in a new system. Then we had to cut that down to a list of the most important things that we wanted. The final list was really just the very minimum of what we needed ERP to do”.<sup>20</sup>

The accounting department had the longest list of requirements on the RFP.<sup>21</sup> They listed about forty functions that they needed, including matching purchase orders with invoices, handling payroll, printing invoices, and creating budgets. The sales department wanted a software system that could track advertisers and agencies, create insertion contracts that could be printed, emailed or faxed to clients, and serve as a contact management system. The production department’s list of requirements focused mainly on job costing functions. The final RFP was a 42-page document. It listed in detail the varied requirements that Canada Wide had in an ERP system, organized by department and referenced with a code and number.

The request for proposals was finished on December 18<sup>th</sup>, 2003, and was sent out to thirteen different ERP software vendors. It was a triumphant moment for the staff at Canada Wide as the project was a cumulative effort from a number of staff from across several departments. The next step for Canada Wide was to wait for the responses and to consider the options they had for ERP systems.

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<sup>20</sup> Jennifer Adsett, interview by Gloria Ma, Burnaby, B.C., 29 September 2004.

<sup>21</sup> ERP Committee, Canada Wide Magazines & Communications Ltd., *ERP Publishing System: Request for Proposal (RFP)*, internal document, 18 December 2003.

The results did not quite meet expectations: only two companies responded. Arnold, the project facilitator, speculates that the reason many vendors did not respond to Canada Wide's RFP was because they simply could not provide the product that Canada Wide was looking for; Canada Wide knew *too well* what they needed and therefore their requests were overly specific.<sup>22</sup> When Canada Wide asked the vendors why they did not respond to the RFP, one vendor commented, "the magazine industry software requirements are significantly different from [our] target market".<sup>23</sup> Another company said, "your project was beyond the scope of what my company can provide".<sup>24</sup> Even ERP vendors who worked with other magazine publishers could not meet Canada Wide's specific needs. One such company suggested that Canada Wide's implementation time frame would be an "unfeasible target".<sup>25</sup> Canada Wide's RFP indicated that they would notify the successful vendor on March 22<sup>nd</sup>, 2004 and that the company wanted to go-live with the new software on June 1<sup>st</sup>, 2004—a two month implementation period.

Many of the software companies offered products that specialized heavily in one area, for instance, sales management, but were lacking in other areas, like accounting. As a magazine publisher, Canada Wide had specific requirements for accounting software, including the ability to handle client pre-billing, batch invoices, sales commissions, and other magazine-specific accounting practices.<sup>26</sup> The project facilitator admits that he knew early on, from some of the vendor's web-based profiles, that they would not be

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<sup>22</sup> Carsten Arnold, interview.

<sup>23</sup> *ERP Vendors Responses to the RFP*, a collection of email responses to Carsten Arnold, 12 February 2004.

<sup>24</sup> *ERP Vendors Responses to the RFP*.

<sup>25</sup> *ERP Vendors Responses to the RFP*.

<sup>26</sup> *ERP Publishing System: Request for Proposal (RFP)*.



able to meet Canada Wide's requests. But he had hoped to receive more responses to the company's RFP.<sup>27</sup>

After months of preparation in accumulating knowledge of the company's workflow, researching different ERP vendors, and creating a request for proposal, the only ERP vendor that could meet the requests of Canada Wide's RFP was the Media Services Group.

#### **D. A Description of MSG (Media Services Group)**

Media Services Group Ltd. (MSG) is a software developer that offers ERP solutions to magazine publishers and events management companies. With a mission statement to "help publishers run more competitive and profitable businesses,"<sup>28</sup> MSG offers products that are specific to magazine publishing needs. Their list of software products include: Circworks, designed for tracking circulation size and growth, maintaining client information and contact, and printing mailing labels; Sales Prospector, designed as a contact management software, for tracking and managing ad clients; Production Workflow, designed for coordinating and tracking insertion orders for production; Ad Manager, designed to manage the entire insertion order process, printing reports, and client billing information; PAS, which stands for publishing accounting systems, designed for detailed accounting purposes; and over two dozen other modules. Even the names MSG use for its line of software products are in accordance with the names of the functions of magazine publishing.

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<sup>27</sup> Carsten Arnold, interview.

<sup>28</sup> *About The Media Service Group Ltd.: History*, leaflet given to ERP Committee, January 2004.

In fact, Arnold, the project facilitator, admits that MSG was the likeliest ERP vendor since the very beginning of the vendor selection process.<sup>29</sup> Canada Wide had been purposefully forward-thinking three years previous when it purchased the Circworks system for the circulation department. The circulation department bought Circworks knowing that it would be compatible with any of MSG's other modules if the company chose to implement the other modules later. To this day, Circworks is renowned as one of the most advanced circulation software available.

MSG's response to Canada Wide's requests was impressive. MSG's Ad Manager module satisfied nearly all of the accounting department's forty requests and their Sales Prospector module performed all but one of the requirements of the sales department.<sup>30</sup> Most of the requirements of the production department were met adequately. MSG's biggest limitations were meeting the needs of the editorial department; it did not offer many features that the editorial department wanted. For instance, the ERP committee wanted a map-out module that editors could use to automatically create a flat plan. MSG also did not have the ability to check or track time sheets. Time sheets are used extensively in the production department to record the units of time that art directors spend on work like designing or scanning photos. Despite these few setbacks, Canada Wide was satisfied that MSG offered the most complete software package.

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<sup>29</sup> Carsten Arnold, interview.

<sup>30</sup> Lee Pierce, *Response to the ERP Publishing System: Request for Proposal (RFP)*, Media Services Group internal document, 30 January 2004.

## **E. Anticipation and Expectations of the ERP System**

The fact that only two companies responded to the RFP, and that, of the two, only one company offered a near-complete ERP system, disappointed some people on the ERP committee. Committee members felt that all of their hard work in coming up with the RFP should have elicited more response. Nonetheless, it was a consensus to proceed with MSG as “virtually any system would have been better than the one they had”.<sup>31</sup>

One of the biggest challenges of bringing the ERP system to realization was staff response. The staff at Canada Wide had mixed opinions of the ERP system. People seemed hesitant to accept change and were skeptical of the technology. Some even feared that the ERP system would eliminate their jobs. For some people, the MSG system was a costly software investment that did not guarantee results. For others, the new system was a cure-all for Canada Wide’s workflow problems and an exciting step into future technologies. Staff had a mix of expectations for what the system was really capable of doing. Below are some of the concerns and expectations of the staff regarding the MSG system:

Training was the number one concern for staff. Many staff members appreciated and understood the magnitude of a software system overhaul and felt that the only way to make the transition smooth was to have good, extensive training. The expectation of the staff was that they would be kept well informed of each stage of implementation, and that the training would be well managed and thorough.

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<sup>31</sup> Jennifer Adsett, interview.

Another expectation of the MSG system was that implementation would be slow. Staff expected that the full results of the ERP upgrade would not be realized for many years. They knew that it would take a long time to bring all the departments to a level of efficiency that would be satisfactory to everyone in the company.

Early on, the production department understood that the MSG system would not be able to handle all of the functions that they wanted it to. The work of the production coordinators was just too multi-faceted for the MSG system to cover. It became evident that the production coordinators would have to continue using their legacy systems in order to make up for MSG's shortfalls. The expectation of the production coordinators was that the MSG software would not affect their workflow much, but would supplement it.

For the sales reps, the MSG system offered many significant changes to their workflow. No longer would the reps have to handwrite their rep sheets; no longer would they have to fill out tedious paperwork for insertion contracts. However, the sales department was worried about the new work that would be created by the MSG software. As the users who would enter orders, the sales reps were worried about the new work load that the data-entry process would create. Instead of being a simpler alternative, the new process seemed to involve more tedious administrative tasks.

The accounting department was positive, though a bit anxious. The ERP system would be especially important to the accounting department's work. On paper, the things that MSG's Ad Manager program could do were much more sophisticated than their previous AMS system. However the accounting department also knew that they would be the first department in the implementation schedule to fully use MSG and that

their trials and successes in implementation would be the basis for every other department in the company.

The other expectation shared by staff was that there would be many people who would be resistant to the changes that the MSG system would bring about. For instance, some of the sales reps were vocally resistant to the extra work brought on by MSG and expressed their unwillingness to change their work processes.

The expectations of the staff went into shaping things such as the plans and schedules for implementation. While staff members from different departments had different expectations of how the ERP system would function, the overall opinion of ERP was positive. The staff at Canada Wide were, and still are, hopeful but cautious about the advantages of ERP. They are realistic and optimistic, understanding that it will take a lot of time before the system is fully functional, but that when it is fully functional, the workflow at Canada Wide will be much improved.

At the time of writing, Canada Wide is about two months into the implementation process.<sup>32</sup> Change in these first couple of months has been difficult, and the staff members feel anxious about the new system. There is some uncertainty about how implementation is going as ERP users experience new problems and challenges every day. However, implementation remains on schedule. The next section looks at the operational realities of the ERP system in the first two months of implementation, how the employees are handling the change and how the attitudes of staff at this point in time will influence the next stage of implementation.

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<sup>32</sup> This paper was written mainly between September 2004 and October 2004, during the first phase of implementation of the ERP system. The opinions in this paper represent those of Canada Wide staff who were actively using the MSG software during these two months.

## **Chapter IV. Operational Realities of the ERP System**

While the ERP project leaders and the ERP committee had varying expectations of the ERP system, the operational realities were a bit of a surprise to everyone. Many challenges cropped up, especially in the pre-implementation stage of MSG, training of the system software, and establishing change in the workplace. This chapter looks at the operational realities of the ERP system, over a six-month period, from the point of adoption through the second month of implementation. The chapter following this expands on some of the events that occurred during this period, examines the reasons why Canada Wide encountered problems, and recommends strategies for the next stage of implementation.

### **A. The Pre-implementation Process**

On April 8<sup>th</sup>, 2004, an announcement was posted on the company's intranet system.<sup>33</sup>

We are pleased to announce that we have penned a deal with Media Services Group (MSG) to purchase our new ERP system. For the newbies at Canada Wide, ERP stands for Enterprise Resource Planning, a term used to describe a centralized database system whereby all departments share the same information. Accounting, Sales, and Production will be using the same system that we currently have in the Circulation department. Each department will have a different software package that is specific to their job.

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<sup>33</sup> The intranet is an internal web-based communications system used for updates and company-wide announcements. Every computer at Canada Wide is set to the intranet site as its home page, and is read near-daily by most staff members. Notices are also often sent to staff via email or via paper memos. There is no priority or precedence to differentiate what type of news goes on the intranet and what news is emailed or passed on paper into an in-tray. All ERP announcements, however, were put on a link on the intranet system.

Next week we begin discussions with MSG to determine what our implementation strategy will be. The timeline for installing, configuring, testing and training will be planned out in the next few weeks and we will be posting notices as things progress. This is a huge step forward in organizing and streamlining our business processes.<sup>34</sup>

This was an important announcement as many staff members (not only the “newbies”) did not actually understand what the ERP system was.<sup>35</sup> While the members of the ERP committee had been working towards this goal for over half a year, other employees in the company were not fully aware of the fact that Canada Wide was planning a system overhaul. Announcements like this one were posted on the intranet throughout the implementation period, updating Canada Wide staff on the progress of ERP. These postings contained information such as when a new computer server was installed, or when two Canada Wide employees were sent to the annual MSG user conference in New Orleans.

The plan was that the ERP system would be implemented in two stages. In the first stage, the circulation, accounting, and production departments would implement the MSG system, with a go-live date of August 1<sup>st</sup>. The sales department would be the last department to be added to the MSG workflow, with a target go-live date in early January 2005. Before each stage of implementation, the departments were required to go through pre-implementation, which involved training, data conversion, and system and software upgrading.

The go-live date for the first stage of implementation had been originally scheduled for June 1<sup>st</sup>, per the original proposal. This date was pushed back to August 1<sup>st</sup>, to

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<sup>34</sup> Canada Wide Magazines & Communications Ltd., *ERP Update 04/08/04, Inside Canada Wide*, company intranet posting, 1 October 2004.

<sup>35</sup> In fact, many non-MSG users at Canada Wide still do not know what MSG or ERP is (ie. as of December 2004, four months into implementation).

coincide with the start of Canada Wide's new fiscal period. This gave Canada Wide about four months for pre-implementation, from the point that Canada Wide first signed on with MSG to the point of going live. During the pre-implementation period, computers were upgraded, software was installed, data from the old systems were converted to MSG, tests were run, and staff were trained on the software. A lot of back-end work was done in anticipation of the MSG system, and with only two employees and one intern<sup>36</sup> working in the IT department, there was a lot of work to do.

Part of the initial pre-implementation was to convert the circulation department on to new software. The circulation department had been using Circworks, a sophisticated circulation software program from MSG, for the previous two years. But they had been working with it in DOS. With a newer version of MSG's software being introduced to the entire company, the circulation department had to upgrade to a new software interface. The data in the circulation department's database also needed to be completely updated and cleaned up, in anticipation of merging with the data of all the other systems in the company. Cleaning up data involved insuring that customers' addresses, for instance, were not out of date, were not duplicated, and were set up consistently. Any data that did not follow a certain convention would create problems later on. The circulation department was quite busy during this pre-implementation period, doing its daily work in addition to cleaning up data and training on the new software.

The accounting department went through a similar process as the circulation department, cleaning up data and configuring its software system. Their legacy system,

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<sup>36</sup> The IT department had one student intern who worked at Canada Wide for a few months during the summer, and another intern who worked during the fall.



the AMS system, was not compatible with the MSG system and data had to be converted from the old database to the MSG database. The accounting department spent a lot of time cleaning up its data, which again involved going through client contacts and addresses to insure that they followed the specifications set up by the MSG system. With tens of thousands of client names and addresses in the accounting database, this process took up much of their time during the pre-implementation stage.

It was determined early on that the production department's database, which was kept on a customized Filemaker docket system, would not be converted over to MSG. The production coordinators would keep their legacy system in addition to using the new MSG system. The production department therefore did not need to go through an intensive data clean-up the way that the accounting and circulation departments did. During the pre-implementation stage, in fact, the production department was not as active or involved as the other two departments in setting up the MSG system. The production coordinators spent relatively little time with the MSG software before going live, having only one software training session.

During the pre-implementation phase, the ERP Committee also stopped meeting once a week. This was unfortunate, as communication between the departments dropped significantly during this period. Whereas the planning and adopting stages of ERP were process-oriented, and involved many staff members, the actual implementation stages were functionally oriented, and involved staff only on a "need to know" basis. This meant that during the pre-implementation stage, the accounting and circulation departments were extremely busy with cleaning up and converting data; the IT department was extremely busy with setting up software and configuring the system;

and the project leaders were extremely busy coordinating these activities. Meanwhile, the sales and production departments were less involved and, to some extent, disconnected from the whole ERP process. During the four-month pre-implementation period, these two departments simply carried on with their daily functions, waiting to be told when it would be their “turn” for further training or action.

## **B. Training**

Before the go-live date, the production coordinators had only two training sessions on the MSG software, and worked with the MSG software on only one of these occasions. This would be sufficient time for training, according to MSG representatives, who played a large part in planning the timeline for each stage of implementation. At first, one day of software training for the production coordinators seemed like enough, as they would use and interact with only one software module, Production Workflow. The plan was to introduce the coordinators to the new software, teach them how to use the basic functions, and then leave them to work with the software and learn on their own time.

At the first training session for the production coordinators<sup>37</sup>, an MSG product manager came in to show the coordinators the functions of the Production Workflow software. Three of the coordinators had never even seen the system before this session, and were confused from the point that they were shown how to log in. The software was clearly not as simple as initially believed. While being led through the different functions, a few coordinators commented that they “did not need” a certain function or

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<sup>37</sup> This training session occurred on July 8, 2004, about three weeks before the go-live date.

that they “did not want” some other function. The MSG trainer replied that “one day, you might...” The overall perception was that the MSG trainer did not understand the role of the production coordinator well enough to explain how the software would fit with their daily work. The coordinators came out of the first MSG training session frustrated, confused, and not fully understanding how the software would replace their current workflow.

The second training session, was not necessarily training at all, but was an important meeting in anticipation of ERP implementation. Led by production manager Suzy Williamson, this meeting was for production coordinators and sales reps, and addressed the communication gaps between these two departments. There had always been an unspoken tension between the production coordinators and the sales reps because of a lack of proper communication, a tension made even more difficult by the separate computer systems. For example, the sales reps give instructions to the coordinators for their ad clients. If the instructions are inaccurate, late, or never given, then the coordinator may follow up with a client inaccurately, late, or not at all.

With the MSG system, the hope was that the communication gaps would be narrowed. The sales reps and production coordinators would be, after all, communicating via a centralized computer database rather than pieces of colour paper passed around the office. However, as Williamson expressed at the meeting, the system would still require everyone to communicate openly in order for the system to function to its fullest potential. The sales reps and production coordinators came away from the meeting agreeing that they would need to improve their communication skills. They also

left with the impression that the MSG system would be the medium that would improve those lines of communication.

As part of the pre-implementation training, these two sessions were supplemented by instructional emails and informal tutorials on how to use the system. Production coordinators also had access to a resource manual on the Production Workflow software. However, the coordinators were largely expected to use the MSG software on their own time, and to learn how to use the software on their own. When the August 1<sup>st</sup> go-live date came, the production coordinators were supposed to begin using the MSG system as part of their daily routine. They didn't. Each of the production coordinators did try to use the software, but were immediately discouraged by how cumbersome and unintuitive it was. The software training session that they had during the pre-implementation period did little to prepare them for the challenge of actually using it. The change was simply too sudden and drastic for the production coordinators, and indeed most of the MSG users. It was easier to continue using the legacy system because, at this point, it was still active.

The accounting and circulation departments had similarly negative impressions of the MSG software early on. They were also disappointed with the training, and the lack of instruction left them struggling with the software for many weeks after the go-live date. Trying to learn to use the software while working with "live" data was somewhat frustrating for the Canada Wide staff. Productivity was low. In addition, the employees in the accounting department who were doing traffic had to do two times the work. They had to enter every insertion order twice, into MSG as well as the legacy system, to provide back-up. The accounting department frustratingly found that the data from

one system would be different from the other. New problems were being discovered with the MSG system all the time. Every MSG user struggled with the software at least a few times during these first couple months of MSG implementation.

Overall, the employees at Canada Wide were disappointed with the lack of training that they received in preparation for the MSG system. While most people were willing to learn and try the new software at first, the early frustrations that they experienced created a sense of dissatisfaction towards the entire system. Despite the problems and frustration, however, the employees never gave up in training themselves and working with the new software. Partly because of faith in the system that they chose as a collective, and partly because of the work ethic instilled at Canada Wide, the MSG users diligently continued working with the software system. By the end of the second month of implementation, all the regular MSG users were able to navigate and use the software with some level of confidence.

### **C. Changes in Workflow**

Despite some struggles during the pre-implementation period, Canada Wide still met its targeted go-live date. A few changes in workflow were immediate for the production coordinator:

- Sales reps no longer needed to handwrite client contact information on their rep sheets; production coordinators were able to find this information themselves by accessing the MSG system and viewing information on-screen.
- Production coordinators no longer needed to wait for a run sheet to arrive in their in-tray before they started calling advertising clients; information was

accessible as soon as the insertion contracts were inputted or updated by someone in traffic.

- Different types of reports could be printed, that contained more information that was relevant to the work of the production coordinators.

By eliminating paper work, and by centralizing information, the MSG system brought about some immediate improvements over the old way of working. The system was faster, more accurate, and provided more information resources for staff. Even in the early stages, the MSG users realized that the system was quite powerful. However, not everyone started using the MSG system right after it went live. The go-live date indicated that any new orders received after August 1<sup>st</sup> would be entered into the new system. The ones that were received prior to August 1<sup>st</sup> were being entered in both the legacy system and the new MSG system. It was necessary to continue this double-entry method for a while, because of the dates of some the magazines' closes. And because ad information was available to the production coordinators in the old legacy system, many of them avoided using MSG until it was really necessary. In fact, because the MSG system was so slow and cumbersome to use at first, the only way the production coordinators could keep on top of the work was to continue using the legacy system. Days and even weeks went by, and few of the coordinators even logged into the MSG system. The coordinators avoided using the new software, at least for the time being.

The traffic coordinators in accounting were working extra hard during this period, trying to keep up with all of the double-entry work, struggling with the new software, and continuing the process of cleaning out the databases. For the accounting and the circulation departments, there was no choice but to use the MSG system and system

software, even though they were not yet totally proficient with the software. Each department struggled but managed to get their work done by the end of the day.

Eventually the practice of doing double-entry ended, and the production coordinators were in a position where they had to use the MSG system. All three departments were actively using MSG by the end of September, about two months after the go-live date. The separate legacy systems were basically gone and the three departments shared information and data on the MSG system. These three departments were integrated, in a sense, but the workflow process did not change to reflect this integration. That is, the production coordinators did their job while the accounting department did their job; and they did their jobs in the same way as before. The “assembly line” aspect of the process did not change, and each department maintained their specific function in the workflow. Production began with the end of sales, the sales reps passed their paper contracts to the traffic department to input into the system, and roles did not change.

The operational reality is that Canada Wide is a functionally managed company. The employees work and function within their own department, and do not need to worry about what is going on in the other departments, beyond what immediately affects them. The company has operated successfully for nearly three decades as a functional organization, by breaking work down by departments. To improve on this success, Canada Wide decided to improve its internal practices by adopting the ERP system. However, an ERP system, in itself, is a *process-oriented* tool. ERP software is designed to integrate processes, bringing work together into a single, smooth process—almost a complete contrast to the division of work of a functional organization. The challenge is

seeing how this process-oriented tool will fit into the functional framework at Canada Wide: whether the staff will change their work to suit the way the software was designed to be used, or if the software will be customized and manipulated to fit the way that work is done at the company.

The next chapter begins by looking at how Canada Wide can balance its process-oriented and function-oriented styles by looking for strategies for the next stage of implementation. The chapter begins by re-examining some of the problems that occurred during the first two months of implementation at Canada Wide, examines the reasons why these problems occurred, and offers recommendations for the next stage of implementation.



## **Chapter V. Evaluating the ERP Implementation**

As of the time of writing this report in December 2004, the two months that have passed since the initial implementation of the MSG software are insufficient to assess the success of the ERP system. The staff at Canada Wide feel that it is too early to say whether their expectations have been met, or if the money spent on the ERP investment has been worth it.<sup>38</sup> The last stage of implementation is scheduled to begin January 2005.

As Canada Wide moves toward the next major phase of implementation, it begins to reflect on its implementation strategies and reevaluate them for the next phase. The problems that have arisen in the initial two months serve as valuable lessons on how to implement change at the company. This chapter examines the operational realities of the first two months of the MSG system at Canada Wide. It explores the reasons why Canada Wide may have encountered problems during the pre-implementation process, the training stage, and establishing changes in workflow. This chapter also offers recommendations to consider as the company moves into the next phase of change. These recommendations are based on the principles of process management as they relate to change in the work place, the recommendations of Canada Wide staff members themselves, and the recommendations of published works on the subject of ERP systems and implementation.

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<sup>38</sup> The opinions of the Canada Wide staff on the MSG system were gathered through casual conversations and one-on-one interviews throughout the implementation process.

## **A. The Short Pre-Implementation Process**

Perhaps the email from the software vendor that suggested that Canada Wide's implementation schedule was too short should have been seen as a warning. Even though Canada Wide pushed back its go-live date to August 1<sup>st</sup>, the time frame for pre-implementation was only about four months. The short implementation schedule put a lot of pressure and unneeded stress on people. Project leader Millie Warren agrees in retrospect, that four months was short, and wishes she had more time for testing before the system went live. At the initial planning stage, however, she believed that four months would be enough.<sup>39</sup> The schedule for Canada Wide's implementation had been originally determined by the ERP project leaders, with advice from experts at MSG. Although Canada Wide managed to achieve its go-live goal of August 1<sup>st</sup>, it did not have enough time for testing and training.

### **i. Data Conversion**

The preparation and clean-up of data took up a lot of time in the pre-implementation schedule. Information systems professor and ERP systems researcher Judy Scott warns that "data conversion from legacy systems is complex and often problematic".<sup>40</sup> Data conversion is often one of the riskiest parts of implementing ERP and can create major problems in an ERP implementation project. Data can be lost during the conversion from legacy system to new system, rendering a company inoperable. Other problems can arise during data conversion, for instance, by integrating an ERP system with other legacy software, or using products from multiple software

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<sup>39</sup> Millie Warren, interview.

<sup>40</sup> Judy Scott, "What Risks Does An Organization Face From an ERP Implementation?" in *Business Driven Information Technology: Answers to 100 Critical Questions for Every Manager*, ed. David R. Laube et al., (California: Stanford Business Books, 2003) 275.

vendors. These last two issues are not a problem for Canada Wide as its ERP software are entirely MSG products and there are no current plans of integrating it with the legacy systems.

Canada Wide also tried to safeguard against any potential problems in converting data from the legacy systems to the MSG system by asking an expert from MSG to come do the conversion for them. IT Manager Carsten Arnold indicated that Canada Wide did consider trying to do the conversion themselves, but did not want to risk losing or corrupting any of the company's valuable data. Before the conversion could be done, however, all of the data from the legacy systems had to be cleaned up and updated. The project leaders underestimated this part of the pre-implementation process. Thousands of names and contacts of various customers and clients had existed on separate databases for many years at Canada Wide. Not only did all of this data have to be cleaned up, it had to be organized in a way that would be compatible with the MSG software and with each other. When the data was deemed "clean" by the separate departments, the circulation department's data merged with the accounting department's data. This caused a number of new problems as thousands of client contacts were duplicated. The "de-duping" process consisted of looking into every client account that was doubled, determining which account was older or unused, and then deleting it. The de-duping process has taken months and is still ongoing.

## **ii. Testing**

The accounting and circulation departments were so pre-occupied with cleaning up their data and preparing it for conversion, that they neglected other duties that were critical during the pre-implementation period, such as testing. A part of the MSG site

was set up during the pre-implementation phase for testing, but users really only looked at it or used it during training sessions. The test site also only contained a partial data and data for a few magazines.

ERP expert Christopher Koch emphasizes the importance of proper testing, which consists of running a real order through the entire system, and not simply “plugging in dummy data and moving it from one application to the other”.<sup>41</sup> Testing is ideally performed with real data and done by the people who will ultimately use the system. At Canada Wide, the users tested the MSG software mainly during training sessions, as well as part of regular practicing and training with the new software. There were no set times for software testing, as most testing was done mainly by individuals in their spare time.

If proper testing had been done at the pre-implementation stage, some of problems that the MSG users faced during the first two months of implementation may have been avoided. For instance, orders that were entered on the Ad Manager software contained contact names that did not show up on the Production Workflow software used by the production coordinators. For the production coordinator to access this information and find the contact name, they had to navigate through several different user screens. This was a time-consuming process but the coordinators thought that this was just part of the way the software was designed, and continued accessing information like this for several weeks. As it turned out, the traffic coordinators could have easily input the client contact names in a field that would have been accessible to the coordinators. They did not because they did not know they had to; after all, they do not use the

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<sup>41</sup> Christopher Koch, “The ABC’s of ERP.”

Production Workflow software. If the different users had tested the software together earlier, they could have realized this error a lot sooner.

Other problems may have been avoided if more testing was conducted during the pre-implementation period. By working out the bugs during a testing phase, learning how the different systems were linked, and figuring out what data from one system was accessible to another, a lot of time and frustration may have been saved during the “live” phase of the system.

The next stage of implementation will introduce new software to the MSG System that no one at Canada Wide has used before. Testing will be crucial during the pre-implementation stage, to work out the bugs and to figure out exactly how the added software module will interface and interact with the other ones in place. It would be ideal to have users from each department: sales, production, accounting, and circulation work on their own software modules and run through different test scenarios. The testers should also use real data, and see what happens with the data when something is input, updated, or even deleted. Testing will help everyone better understand how the software works. Currently, the MSG users who did not go through proper testing discover “surprises” in the MSG software every day. Sometimes these surprises are good, but sometimes these surprises are not so good; for instance, discovering that their data have been deleted or changed by someone else.

### iii. Time

If more time had been allotted to the pre-implementation schedule, then the staff may have had more time for testing. Many ERP experts suggest that time is one of the most underestimated factors in ERP implementation, and ERP projects are often at risk for overrunning because not enough time is built in from the very beginning. Business analysts Mark Endry and Travis White warn that the speed of implementation can “skimp on (or eliminate altogether) knowledge transfer from the software vendor to the user”.<sup>42</sup> If a company only allows enough time to install the software, but does not allow enough time for the users to learn how to use it, then the new software may not be as valuable as it should be. Ultimately, it is the vendor who understands the software the best, and the way that it is ideally used.

Canada Wide’s short schedule did not allow enough time for this critical “transfer of knowledge” from MSG reps to Canada Wide staff. MSG reps could only meet with the staff on a handful of occasions. Compounded by the fact that MSG’s head office is in California, the time that MSG reps spent at Canada Wide’s office was limited. A lot of preparation and follow-up work went into the visits by the MSG staff, and a lot of correspondence was conducted via email or over the phone. The philosophy behind the extra work preparing for an MSG staff visit was to “maximize time” with the MSG reps when they arrived. Although the project leaders understood the importance of the transfer of knowledge, not enough time was allotted into the schedule to accommodate it.

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<sup>42</sup> Mark Endry and Travis White, “What Is an Enterprise Resource Planning (ERP) System?” in *Business Driven Information Technology: Answers to 100 Critical Questions for Every Manager*, ed. David R. Laube et al., (California: Stanford Business Books 2003), 271.

## **B. Shortfalls in Training**

The short pre-implementation schedule also did not accommodate enough time for proper training on the MSG software. Overall, the staff at Canada Wide are disappointed by the lack of training. Training needs to go beyond simply showing users what all the buttons on the screen do. Users will understand how to use a new software program as long as he or she has some time and practice with it. However, learning how to use an ERP system goes beyond just learning how the software works. The ERP system brings about entirely new ways of doing things to the different staff members of Canada Wide. One of the keys to training is therefore instructing users on the “proper” way of using the system. The production coordinators, for instance, learned how to use the software on their own time, by practicing and working with it every day. However, because the coordinators worked on the software separately, they discovered ways of working with it and use it differently from each other. They navigate through screens differently, enter different types of notes in client’s orders, and interact with the software differently. This may have been fine in the “old way” of doing things, as a coordinator kept notes for herself that no one else used or saw. Now with an integrated system, everyone sees everything, which means that everyone needs to follow standards and use the system in the same way. There must be standards set out from the beginning and a uniform way of using and interacting with the software.

Training is one of the most important steps of a successful ERP system implementation project. People who have been through ERP implementation often wish that they had focused first and foremost on training. ERP expert Christopher Koch suggests that many companies often underestimate proper training for ERP. To train

employees properly, “they have to have a much broader understanding of how others in the company do their jobs than they did before ERP came along”.<sup>43</sup> Training at Canada Wide needs to be focused how the company does business and what the overall process looks like. As the departments will be operating with integrated data, it is important for the people using the MSG system to have at least an understanding of what the other people on the other end of the system are doing. For example, for the circulation department, the most important part of a client’s data is the mailing address; for the sales department, the most important part is the client’s name and phone number; and for the production coordinator, the most important is the production contact name, fax, phone and email address. Prior to the MSG system, the people in the accounting department never understood what the production coordinators did or the significance of a client’s fax number. Now that all of these different departments are sharing the same data, they need to understand that someone’s “useless” data may be very valuable to someone else. They need to understand how the departments interact and integrate, and how to make the MSG system assist in that structure.

By integrating the information collected from the different departments into a central database, the ERP system makes available this information to all the different departments. The idea behind this process is that anyone who uses it has access to all the information that it contains. However, if a user does not or cannot understand the information that the system contains, then that kind of accessibility is not useful. The “old way” of processing an insertion order at Canada Wide’s was slow, but worked because it was simple. The information was separate but was sufficient for the purposes

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<sup>43</sup> Christopher Koch, “The ABC’s of ERP.”



of each department and its functions. With the MSG system, more information is made available to everyone, changing the idea of divisional work.

Christopher Koch writes:

[The old] process may not have been efficient, but it was simple. Finance did its job, the warehouse did its job, and if anything went wrong outside of the department's walls, it was somebody else's problem. Not anymore. With ERP, the customer service representatives are no longer just typists entering someone's name into a computer and hitting the return key. The ERP screen makes them businesspeople. It flickers with the customer's credit rating from the finance department and the product inventory levels from the warehouse. Will the customer pay on time? Will we be able to ship the order on time? These are decisions that customer service representatives have never had to make before, and the answers affect the customer and every other department in the company...Accountability, responsibility, and communication have never been tested like this before.<sup>44</sup>

While Koch's example uses a manufacturing company, his recommendations are relevant to Canada Wide. The training at Canada Wide must go beyond knowing simply how to operate the MSG software, to understanding how the entire process works. Only after this may the different users from the different departments be able to operate the same system, share the same data, and use the system to its fullest abilities.

Everyone's greatest anxiety for the next stage of implementation is the training procedure for the sales reps. As the sales reps will take over the role of order entry, all the information input in the system stems from the point of sale. Everything that the sales reps input will affect every other department in the company that uses the MSG system. As customer service reps, the sales reps need to be able to interpret and understand the information on the ERP system. If a client asks the sales rep questions about their ad, the rep must be able to interpret the information in the system entered

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<sup>44</sup> Christopher Koch, "The ABC's of ERP."

by the other users. It is critical for all the MSG users to input data accurately and keep their information up-to-date. With ERP, “accountability, responsibility, and communication have never been tested like this before”—especially not at Canada Wide.

The training processes need to improve and should shift towards educating people about the changes that are happening overall in the company, the changes that are happening in each department, and then specifically the changes that are happening to an individual employee’s workflow. In addition to this, employees need more training on the software itself and the functions of the MSG system. As the employees develop a better understanding of the process, they will inevitably understand and use the software more effectively as well.

### **C. Challenges with Change**

In a functional environment like Canada Wide’s, change is difficult to execute. ERP systems expert Christopher Koch, suggests “to do ERP right, the ways you do business will need to change and the ways people do their jobs will need to change too”.<sup>45</sup> Any change in jobs means that individuals will need to change as well. And people are resistant to change. No matter how extensive the training is, and how committed staff members are to implementing the new workflow successfully, there will inevitably be a few employees who are threatened, frustrated, or afraid of changing.

In fact, the reason why some ERP projects fail is due to people’s resistance to change. According to Koch, “if your company is resistant to change, then your ERP

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<sup>45</sup> Christopher Koch, “The ABC’s of ERP.”

project is more likely to fail.”<sup>46</sup> Canada Wide, as a whole, is not resistant to change; the board of directors and managers all approved the decision to switch to an ERP system. The project leaders were careful to involve all departments in making decisions regarding the ERP, ensuring especially that the managers bought-in and supported the change. Nevertheless, changing to the MSG system has been a challenge at Canada Wide. Many problems have occurred during the first few months of implementation that make people feel reluctant to change to the new system. Some people blame the training processes while others blame the software itself. Others allude to poor planning, blaming the lack of time and knowledge transfer. While all of these factors contributed to the challenge of switching to the ERP system, the challenge that is the hardest to overcome is the attitudes of the people themselves towards change. Below are some of the excuses that employees have for not using the MSG system:

- *I'm too busy to learn the new system./ I haven't had time to try it..*

Considering how busy the company culture at Canada Wide is, these two excuses are entirely valid. After all, there is little “down time” for staff to “play around” or try to learn something on their own. Currently, the employees at Canada Wide are left to figure out how the programs work on their own time and consult the user manual if they run into problems. There is no true software expert on hand to direct questions to. Instead, when users run into problems, they ask their coworkers, which slows productivity even more because then two people are taken away from their daily work to figure out a software problem.

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<sup>46</sup> Christopher Koch, “The ABC's of ERP.”

Because workers feel that they are too busy to learn the new MSG software, they find ways of avoiding it. They use different methods of “working around” the software, to get the information that they need and then continuing the work the way that they prefer. The production coordinators, for instance, have grown very accustomed to working with printed run sheets listing all of their advertisers and client contacts. They use these run sheets as check lists, to make notes, and record all their information about the client. The MSG system is designed so that these notes and records are done on screen and all of the information can be pulled from the database. Not comfortable with this method, the coordinators create and print reports, formatted to look as similar as possible to their old run sheets. Coordinators did not create their own reports in the past; it was formerly a job of the traffic coordinator to print reports and distribute them to the rest of the company. MSG is sophisticated enough to allow users to print their own reports, containing a vast amount of data. However, trying to determine which report to print or even how to print the report itself can be a challenge.

- *The new system is stupid and it can't do the things that we used to do.*

This excuse was overheard when a production coordinator complained about how frustrating it was to pull a report from the new MSG system. One of the reasons the MSG system was chosen, in fact, was because of its ability to print out a wide variety of very sophisticated reports. The legacy AMS system, in contrast, could only print a limited number of generic reports. In the early stages of learning how to print reports using the MSG system, some of the production coordinators complained about the types of reports that the MSG system created. The fonts were not right, there was not

enough spacing, and they were just far more confusing than the old reports. One coordinator admitted that she preferred the old dot-matrix printed reports, saying, “I guess I’m just a dinosaur but I like the way things used to be”.

- *The software is far too cumbersome.*

The MSG system is, in fact, a cumbersome system to learn. The user screens are difficult to navigate and the set-up is unintuitive. The entire system is actually quite complex, the way that different modules integrate and the way that information is shared. There are also many levels of security features that grant different users access to different parts of the system. Furthermore, because everything is interconnected across many departments, a user may input data in his own software in one field, and it will show up in someone else’s software in a completely different field. The software modules are not intuitive to use and are not similar to any other software systems. They originate from MSG, not Microsoft, and are feature customized publishing software functions that few people have prior experience working with. Considering how little formal training the users received on how to use the software as well, this excuse is entirely valid. The users should not be expected just to switch over from a legacy system that they had been using for years to a new software system that is so different.

These reasons above reflect the attitudes of the users who were reluctant to use the MSG system during the early days of implementation. Changing people’s attitudes is difficult. However, there are ways of introducing change that are not as painful as others. Again, training plays an important role in encouraging people to accept change.

ERP expert Christopher Koch says, “if you simply install the software without changing the ways people do their jobs, you may not see any value at all—indeed, the new software may slow you down by simply replacing the old software that everyone knew with new software that no one does.”<sup>47</sup> Part of earlier frustrations amongst MSG users was due to low productivity. The staff felt that the new software, that was supposed to streamline work processes and make work easier, was actually the cause of many roadblocks that made work more difficult. However, in order for users to use the new system to its fullest potential, they must understand all the advantages that it offers.

Former Harvard Business School professor Todd D. Jick suggests that there are typically four questions asked by individuals when they are going through organizational change.<sup>48</sup> Individuals can feel confident about change when they understand the answers to these four questions:

- *Why do we have to change?*
- *Why are these the right changes?*
- *Is this company capable of handling the changes?*
- *What will the company do to help me through the changes?*

According to Jick, individuals need to understand whether there is adequate motivation and incentive in change, as well as enough support and enablers of the change. Managing this change therefore becomes a balance of motivational factors and skill factors.

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<sup>47</sup> Christopher Koch, “The ABC’s of ERP.”

<sup>48</sup> Todd D. Jick, “Managing Change,” in *The Portable MBA in Management Second Edition*, Allan R. Cohen (New York: John Wiley & Sons, Inc., 2002), 343.

At Canada Wide, the process of change did not provide clear answers to these questions. Employees were not motivated to change because they did not clearly understand why the company was changing or whether the ERP system was the right way to change. The employees need to understand what they are doing, what their goals are, and how a new software system will help them get there. In explaining the MSG software to the production coordinators, for example, it needs to be presented in a way to make the coordinators aware of its advantages and efficiencies. The coordinators need to believe that the change is actually worthwhile. After this, the training sessions should involve demonstrations on how to use the software properly. These sessions should help users understand the basic functions of the software, what key buttons do, or how to navigate from one screen to the next. The demonstration should be simple, yet thorough. The employees need to feel as though they are getting company support through this time of change. Another key is allowing time for users to practice. Users must be given time to practice using the new software in a test environment. They should not be told to practice on their own in their spare time, and not with live data. Users may be more comfortable if they can practice in well-organized training sessions.

Furthermore, the “best practice” methods of using the software should be emphasized right from the beginning of training. Instead of having users figure out how to operate the software on their own, they should be using the software as it was designed. Koch advises “you have to get people inside your company to adopt the work methods outlined in the software. If the people... do not agree that the work methods embedded in the software are better than the ones they currently use, they will resist

using the software.”<sup>49</sup> As cumbersome as the MSG system is at first, its work methods are remarkably more thorough and precise than any of the legacy systems. If the users also believe this, then they may also be more willing to learn how to use the new software. After proper, inclusive training, and some time for software testing and practice, even people who feel that they are “dinosaurs” should be able to accept the new software.

While some employees were reluctant to change in the beginning, there has nevertheless been acceptance of the new system. In the classic model of change, Canada Wide employees are entering the fourth stage of change.<sup>50</sup> The first phase is denial, or shock, during which an employee reacts by denying that any change is occurring.<sup>51</sup> They are timid and protective. The second phase is defensive or resistant, during which an employee may be angry about the change and even shows anger towards those are pushing for change. The third phase is exploration, or acknowledgement, in which an employee may become accepting of the change and even curious about what that change may entail. The fourth phase is acceptance, or adaptation, in which an employee accepts the change and even grows more committed and enthusiastic about the change.

Many of the MSG users at Canada Wide are now entering this fourth phase. They are accepting and adapting to the new system and changes in workflow. In fact, there has to be. At this stage of implementation, there is no choice of going back to the legacy systems and users are aware of that fact. Faced with this situation, the employees have no choice but to learn how to use the new system.

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<sup>49</sup> Christopher Koch, “The ABC’s of ERP.”

<sup>50</sup> Ralph Hancox, letter to Gloria Ma, Vancouver, B.C., 13 December 2004.

<sup>51</sup> Todd D. Jick, “Managing Change,” 366.



The next major step towards full implementation of the MSG system is adding the sales department. They will work with Sales Prospector, a database and contact management system. The set up begins November 2004, and full training begins January 2005. People are nervous about this step in the implementation process. As Systems Administrator Bee Fioraso comments, “the personalities in the sales department are different; I know that some of these people are not going to want to change.”<sup>52</sup>

Knowing this and knowing what they learned from the first step of implementation, the ERP project leaders are better prepared for training and implementing this part of the ERP project. They have already made some changes that will hopefully make the second stage of implementation smoother than the first. The time set aside for the pre-implementation stage for the sales department is longer and the action plan is more detailed than it was before. People from outside of the sales department are also involved in the planning process. The sales team is diligent in preparing and cleaning up the sales data that needs to be added to the MSG system, in order to minimize the problems during data conversion that accounting and circulation experienced. Lastly, the sales reps have been divided by magazines so that they are brought on to the MSG system in smaller “test groups” to prevent any problems that might occur.

The next chapter summarizes the implementation process of the ERP system to date, as well as reflects on the impact that the ERP system has had and will have at Canada Wide.

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<sup>52</sup> Bee Fioraso, interview by Gloria Ma, Burnaby, B.C., 8 October 2004.

## **Chapter VI. Conclusion**

The management at Canada Wide saw the ERP system as a software solution to the problems that they were having with inefficient workflow. They believed that by integrating the departments with the MSG system, communication and information-sharing would be greatly improved. Better communication and information would, in turn, allow staff to be more effective, more productive, and more efficient as workers. The software was expected to serve as a catalyst to solve other related problems in workflow as well, including narrowing the communication gaps between the departments and allowing equal access to information.

### **A. The Limits of ERP**

Canada Wide's previous workflow, however, had a number of weaknesses. The weaknesses in workflow resulted from a number of problems: the separate computer systems, poor communication between departments, a strongly hierarchical structure, and other functional weaknesses. The MSG system has improved the situation at Canada Wide in many ways, but has not and cannot solve all the problems that the company has. Communication gaps between departments, for instance, have always been an issue at Canada Wide. As Suzy Williamson suggests, "communication is a human thing"<sup>53</sup> and will be a constant issue regardless of what software system is used. The ERP system is a technical solution, a software program, and is limited in what it can do.

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<sup>53</sup> Suzy Williamson, interview by Gloria Ma, Burnaby, B.C., 8 November 2004.

In fact, while the ERP system should bring the departments at Canada Wide closer together in terms of integration, the communication gap between the departments could actually widen. With an ERP system, it can become even less important for the accounting department to understand what the production coordinators do. After all, with this system, the coordinators have all of the information in front of them and the ability to create their own reports; they do not need accounting to do it for them. Sales reps no longer need to fill out rep sheets for their coordinators; eventually, they will not even need to fill out insertion contracts. Everyone can sit at his or her own computer console, inputting and looking up information without ever really needing to understand where the information comes from or where the information goes. As long as the correct information pops up on the computer screen, the production coordinator may never need to speak to the sales rep. The way that ERP is used is more efficient than the old system because it allows departments to work even more independently of other departments. In many ways, the MSG software is just an expensive substitute for the old way of doing things. The system has replaced a slow-moving paper trail with lightning-fast integrated software, serving the same purpose and providing the same information as before.

## **B. Future Goals**

Change is difficult. Change is even more difficult when it involves nearly a hundred different people with different skill sets, who work in different departments, and have different daily functions. Canada Wide Magazines & Communications Ltd. is a company that took on this challenge and changed the way it did business. The adoption of an ERP

system and integration of company-wide workflow was done entirely to strengthen the core and the organization of the company. Although the system is not yet fully operational, the lessons already learned from the process of change are certainly valuable.

Canada Wide's current organization and structure is typical of publishing companies in Canada. The functional style of management divides staff members by department and job function, which builds on the strength of individuals within a department, as well as increasing work efficiency. However, functional management also has many weaknesses; most notably at Canada Wide as a source of communication problems. In order to remedy these communication gaps between departments, by integrating computer systems, data, and information, the company decided to implement an enterprise resource planning software system. The ERP project leaders were careful in involving everyone in this important decision-making process, making a diligent effort of having management and key users buy-in to the idea of the ERP system.

The ERP system in itself however is a process-oriented tool. It is designed to make the entire process work better, not individual functions. The planning stages of ERP were process-oriented, involving staff members from all departments and considering every department's needs and interests. However, as the actual implementation began, the ERP project began employing the functional style. Training was provided department by department and pre-implementation work was organized according to functions. Communication between departments during the pre-implementation stage was not as consistent, once the ERP committee stopped meeting weekly. The departments communicated on a functional "need to know" basis, and only the project leaders had a

holistic view of the entire process. Even the systems administrator Bee Fioraso, who was responsible for installing the ERP software and taking care of the back-end aspects of the system, did not know what the whole process entailed. She said, “I get the instructions and then I just do it”.<sup>54</sup>

As the next stage of implementation begins, the full plans for the MSG system need to be clearly stated—for every department and for every person involved. Having weekly meetings with the ERP committee is an important step in keeping everyone aware of the implementation process. Rather than staff knowing only on a “need to know” basis, the staff who are involved in the ERP project should know as much as they can. This way they can understand what is expected of them or what is to come. If the users understand where they will be in a few years time, after full implementation, then perhaps they will better understand how the ERP system will take them there.

The benefits of having an ERP system will not be seen for at least another year. Indeed, even after a few years, the hard savings in time and money may not be easily calculated. The benefits of ERP after all, are achieved within. The goals of ERP are to improve the communication and efficiency of internal business practices, which may not necessarily translate into extra dollars. In the meantime, the staff at Canada Wide are just getting through the growing pains of change. The staff look forward to the day, which some believe could be as far as two years later, when the MSG system will be fully implemented and functional. As systems administrator Bee Fioraso sums up best, “some users love it and embrace it; some don’t want to use it and think it’s terrible. But

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<sup>54</sup> Canada Wide staff member, interview by Gloria Ma, Burnaby, B.C., October 2004.

it really hasn't been too bad. Once it starts working with all the departments, it will be good. It'll be fine."<sup>55</sup>

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<sup>55</sup> Bee Fioraso, interview.

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