The Impact of Technology on the Construction Industry

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Chief Justice McLachlin of the Supreme Court of Canada, in the summer of 2009, noted that fewer construction cases are being tried due to "complexity, time, preservation of relationships, cost, risk of outcome and other such factors".¹ There is no doubt that litigation is and continues to be the most popular method of dispute resolution for construction disputes. The problem is that the cost of litigation and the time it takes to resolve disputes, contributes to the hardship being suffered by the parties to a construction dispute. Contributing to the staggering costs of litigation is the fact that construction litigation is particularly document intensive with an increasing number of documents, communications, and plans being exchanged and stored electronically. A typical construction project generates electronically stored information from numerous different sources, including email, word documents, excel spreadsheets, financial and accounting data, CAD drawings, Primavera P6 (formerly, “Primavera Project Management”), and other construction industry programs that can be utilized only by a party with a valid license.

The impact of technology on the construction industry cannot be viewed simply from the perspective of the litigation lawyer and the litigants. In fact, on the Construction and Professional Forum of the Linked- In website, one of the recent questions posed to members was: “What is the one piece of technology that has transformed how you work?” This question led to several responses and has helped to illuminate the impact of technology in the construction field. Responses delivered included:

- “Remote desktop access.” (Christopher P.H. Gould)
- “The personal computer – I was brought up on slide rules but started work with a calculator, more recently, digital cameras.” (James Cohen)
- “The ‘Cloud’ has made it easy to access all my information from the phone, tablet and computer without having to change it on all 3 places. The tablet has also been a huge time saver while walking through jobs and noting items with corresponding pictures.” (Carl Cathcart C.P.E.)
- “The Internet for sure – before that it was the fax machine.” (Larry Wares)
- “I would have to say building information modeling (BIM) which has had an incredible influence on how my colleagues and myself work. It is created by the same people who created Auto CAD (AutoDesk) and it is fantastic to visualize your product before, during and after the construction phase.” (Daniel Gannon)
- “Virtual meetings, screen share has been a huge time saver and productivity improvement” - Microsoft Live Meeting or Go To Meeting are excellent tools.” (Samuel A. Seltzer, P.M.P.)
- “Text tool – an online collaboration platform for the construction industry.” (Dale Rohling)
- “Introduction of tablets. You can take them everywhere and access anything you want without having to go back to the construction office. You have instant access at your fingertips. (Tom Messer)²

There are advantages, therefore, to the proliferation of electronically stored information (“ESI). The increased use of electronic communication in business has created a proliferation of potentially available tangible evidence for use in future litigation. One of the obvious strengths of electronic evidence is the increased availability of the written word - coupled with other electronic crumbs, including bits and bytes, to establish facts and events. Many of these "written words," together with their associated "bits and bytes," will fall under the definition of business records with the ensuing result that courts will defer to the computer-generated or ESI, given its tremendous degree of circumstantial trustworthiness. In addition, e-discovery is more intrusive. Private conversations based on mindless chatter, which were once commonplace "at the water cooler", are now committed to writing in emails and instant messages, creating a document which may be produced and used against its drafter in future litigation.

¹ The Honourable Mr. Justice Ricchetti and Timothy J. Murphy, “Construction Law in Canada”, LexisNexis, Chapter 11, Construction Disputes, at p. 223.
² Linked In – Construction Industry Group, last accessed April 13, 2012.
As more information is being created through electronic means, the need to store large quantities of electronic information has also expanded. The challenges of storing vast quantities of electronically generated information have given rise to additional challenges in terms of the ability to preserve that information and retrieve it.

The increased volume of relevant ESI has increased the focus on proportionality in discovery, reflected in the changes to the Rules of Civil Procedure and recent judicial decisions emphasizing the importance of proportionate discovery, which requires a fundamental shift in litigants and their counsel's approach to discovery. To achieve this shift, the default rule in favour of virtually unlimited discovery must be reversed and proportionality must replace relevancy as the most important principle guiding discovery. This was the sentiment recently expressed by Master Short in Warman v. The National Post Company, et al, a defamation case where the defendant sought production of the plaintiff's computer's hard drive on the basis that it contained documents relating to the main issues in the action. In considering the defendant's production request, Master Short engaged in a lengthy discussion of the principle of proportionality, noting that he had a duty to make an order proportionate to the case.

In his review and analysis of the role of proportionality in discovery, Master Short adopted the eight factor proportionality test for e-discovery identified by US Magistrate Judge James C. Francis IV in Rowe Entertainment Inc. v. William Morris Agency, Inc., being:

A. the specificity of the discovery requests;
B. the likelihood of discovering critical information;
C. the availability of such information from other sources;
D. the purposes for which the responding party maintains the requested data;
E. the relative benefit of the parties of obtaining the information;
F. the total cost associated with production;
G. the relative ability of each party to control costs and its incentive to do so; and
H. the resources available to each party.

Master Short concluded his analysis of the proportionality principle and the changes to the Rules of Civil Procedure incorporating proportionality into the rules by stating the following:

The time has come to recognize that the "broad and liberal" default rule of discovery, has outlived its useful life. It has increasingly led to unacceptable delay and abuse. Proportionality by virtue of the recent revisions has become the governing rule. To the extent that there remains any doubt of the intention of the present rules I see no alternative but to be explicit. Proportionality must be seen to be the norm, not the exception - the starting point, rather than an afterthought. Proportionality guidelines are not simply "available". The "broad and liberal" standard should be abandoned in place of proportionality rules that make "relevancy" part of the test for permissible discovery, but not the starting point. If embraced by the courts, parties and their counsel, such proportionality guidelines offer hope that the system can actually live up to the goal of securing for the average citizen, a "just, speedy and inexpensive determination" of his or her case, subject to production. Instead, it is more appropriate, in light of the principle of proportionality, to limit any disclosure order to relevant items to be decided by an independent expert retained to review the hard drive.

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4 Ibid.
6 Supra note 35 at para. 82.
7 Ibid. at paras. 84 – 86.
In disposing of the motion, Master Short felt that a forensic examination of some of the available electronic data was justified, however, restricted that examination to very limited areas, to be made on a mirror image of Warman's hard drive and to be made by an independent, mutually acceptable expert.\(^8\)

It is interesting that Master Short started his Judgment by quoting from Senator Barry Goldwater's 1964 acceptance speech at the 28th Republican National Convention, accepting that party's nomination for President, where Senator Goldwater stated as follows:

> I would remind you that extremism in the defense of liberty is no vice. And let me remind you also that moderation in the pursuit of justice is no virtue.

After delivering his reasons, Master Short concluded that:

> Senator Goldwater may have held the view almost 50 years ago that "moderation in the pursuit of justice is no virtue", but having regard to civil litigation in Ontario today, I remain convinced that proportionality is.\(^9\)

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\(^8\) Ibid. at paras. 157-161.  
\(^9\) Ibid. at para. 200.