

Electronic Titling: Potential and Risks

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Abstract

Initiatives in electronic conveyancing and registration show the potential of new technologies to transform such systems, reducing costs and enhancing legal security. However, they also incur substantial risks of transferring costs and risks among registries, conveyancers and rightholders, instead of reducing them; entrenching the private interests of conveyancers, instead of increasing competition and disintermediating them; modifying the allocation of tasks in a way that leads in the long term to the debasement of registries of rights with indefeasible title into mere recordings of deeds; and empowering conveyancers instead of transactors and rightholders, which increases costs and reduces security. Fulfilling the promise of new technologies in both costs and security requires strengthening registries' incentives and empowering rightholders in their interaction with registries.

Keywords: electronic conveyancing, electronic registration, lawyers, notaries, digital signatures.

JEL Classification: K11, K12, O33, L43

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1. Introduction

Electronic automation has made possible new ways of contracting, registering and settling transactions. In essence, technology has enabled the automation of many tasks performed by conveyancers when preparing and authenticating contracts and communicating with each other and with the registries. Many registries' tasks have also been automated, including not only communication and archiving but also some routine compliance checks.

The least problematic changes are the use of information technologies for archiving and accessing information, by keeping the register in digital form and providing online access to the elements of the register that are open to conveyancers, parties or the general public. A second step is to make it possible for users and/or professionals to lodge documents at the registry electronically. In principle, these documents could be the digital version of those in the paper system. However, to fully exploit the potential of the new technologies, electronic lodgment is often accompanied by substantial standardization of documents and transactions. To this effect, the structure of the transactions has to be carefully examined and forms preapproved by the registry.¹ For these standardized transactions, parties themselves or their legal representatives complete the forms in an electronic workspace by entering the specific data on the transaction they want to contract and register (e.g., the identity of the buyer or mortgagee, the name and incorporators of a new company), often "pre-populating" them with data from registry's databases that identify each property and its owner or identify each company in subsequent filings. If necessary, documents in the workspace can be electronically shared by parties and their representatives for review, amendment and approval, which is useful in conveyancing. After all parties have granted their consent, the document is submitted electronically for registration. The most ambitious systems also provide for transferring funds between parties.

¹ See, for instance, a list of the 221 electronic forms available at the New Zealand land registry at <http://www.landonline.govt.nz/edealing/elodgement/e-capable-instruments.asp> (visited July 27, 2009).

The most problematic issues relate to: (1) who is allowed to lodge documents at the registry; (2) the nature of the review performed by the registry staff before registration; and, encompassing both of these aspects, (3) how the new system ensures that rightholders have granted their consent.

First, to speed up reform, reduce opposition to reform and, allegedly but doubtfully, enhance security, the new system may reserve access to professional conveyancers, by granting them exclusive lodgment access to the registry. For example, in New Zealand, Singapore and British Columbia, only conveyancers may lodge documents electronically. Alternatively, the system may be open to other participants, at least to those who register for that purpose. This is the case of Ontario and the English 2002 Land Registration Act which allows “do it yourself conveyancing”.

Second, lodged documents may be subject to a variable mix of automatic and human pre-registration checks for compliance. Most systems have instituted electronic lodgment but retain manual review by registrars before registration. The idea of allowing conveyancers not only to lodge their instruments electronically but also to alter the register after automatic controls by an “electronic registrar” but without manual intervention by the registry staff (often called “agency registration”) is generally rejected or only applied to simple transactions. Thus, the pioneer Electronic Land Registration System in Ontario maintains ultimate control by registrars, and the same solution has been adopted in British Columbia and Singapore (Low, 2005). The system under development in England also introduces validation by the registry prior to execution and completion. The New Zealand *Landonline* system is exceptional in that conveyancers directly alter the register subject only to automatic checks for some impediments to registration, such as caveats and pending dealings, with no manual intervention by registry staff prior to registration.² Thus, it provides the paradigm case of agency registration.

Third, reforms introducing electronic conveyancing differ in how they ensure that rightholders have granted their consent to the transaction. Expediency has led some reformers

² See Christensen (2004) and Low (2005) for summaries of these and other systems.

not only to allow but to actually require conveyancers to sign the documents electronically on behalf of their clients; clients sign only the authorization documents to be kept by conveyancers. (Interestingly, in some countries conveyancers were happy to sign on behalf of their clients while in others they were opposed to bearing the risks of such representation. A major factor here seems to be previous practice, as both solutions are in place in paper-based systems.³) Alternatively, the system may require the digital signature of rightholders on any document, lodged, which is safer. This may allow parties to dispense with witnesses, including conveyancers, for authenticating purposes. Security may also be enhanced by having the system notify rightholders and even request their consent before registering any relevant alteration in their rights.

The rest of the paper examines in more detail some systems of electronic conveyancing and registration at different stages of development with a view to obtaining guidance on these issues. It focuses especially on the New Zealand experience which, as a lone example of agency registration, is an exception to the general policy of retaining manual control of registration.

2. Functioning systems in Ontario and New Zealand

Ontario was one of the first jurisdictions worldwide to provide for electronic registration through the Electronic Land Registration System, based on a register of rights (the “Land Titles” system), which was created by converting the old record of deeds.

³ In some common law countries (including New Zealand, British Columbia and Ontario, according to Low, 2005), it had been customary for conveyancers to sign title documents on behalf of their clients. Similarly, in Spain and some other civil law countries, parties sign the deed but notaries retain the original deed and lodge a copy at the registry. In all these jurisdictions, conveyancers had in fact been signing the documents to be registered. Conversely, in England the 2002 Land Registration Act allowed conveyancers to start signing as agents on behalf of their clients but professionals were reluctant to take on this function for fear of fraud and misunderstandings (Land Registry, 2003, pp. 11, 147-48).

This electronic registry is characterized by open lodgment, manual review, deferred indefeasibility and the planned empowerment of registries to notify rightholders.

Lodgment is open to all participants, so non-lawyers may lodge documents that do not require a “compliance with law statement”.⁴ The procedures set up to grant lodgment access simply require applicants to provide evidence of: their identity, to ensure that access is limited to persons who are correctly entitled; the sufficiency of their financial resources to pay any potential fraud victims; and their good character and accountability, to ensure that those dealing with the registration system have appropriate qualifications and integrity (OMGCS, 2008).

After lodgment, the registry staff manually review documents for compliance before registering or rejecting them.⁵ Section 23 of the Ontario Land Registration Reform Act stipulates that “an electronic document delivered to the electronic land registration database by direct electronic transmission is not registered until the land registrar registers the document in the prescribed manner.”

The main legal attribute of a register of rights—i.e., indefeasibility, the application of a contract rule in favor of third parties—has been retained. However, the legal effects of registration have been diluted to the extent that the law has been moved from immediate to deferred indefeasibility by modifying Section 78 of the Land Titles Act 1990, an amendment which reinstated what was long believed to be the rule in Ontario prior to the court decision in the *CIBC Mortgages v Chan* case (O’Connor, 2009, pp. 210-14).

Finally, it is significant that the law considers empowering the registrar to notify rightholders of any attempt to register an electronic document that purports to effect a transfer or charge of land (Subsection 23(4) of the Land Registration Reform Act, which has not yet been enacted at the time of writing).

⁴ See Low (2005).

⁵ See, for detailed information, “Electronic Land Registration” (http://www.ontario.ca/en/information_bundle/land_registration/content/stel02_165314, visited August 21, 2009).

While the Ontario system retained manual review, the New Zealand “Landonline” electronic registration system, created in 2002, largely replaced preregistration checks performed by staff with automatic checks.⁶ If a document passes these, it is registered “almost instantaneously and title details are updated automatically without any intervention from registry staff” (Muir, 2003, p. 313). Staff also perform some checks and audits after registration but by then it is too late to change anything as the registrar’s powers of correction are limited where property rights might be affected.

This reliance on automatic checks has been interpreted as meaning that lawyers are permitted to alter the content of the register without involvement from any third party: “conveyancers now become de facto Registrar-Generals of Land or guardians of the integrity of title by taking on much more overt responsibility in the certification process” (Greenwood and Jones, 2003, p. 330). The integrity of the Register rests fully on the certifications that Section 164A of New Zealand’s Land Transfer Act 1952 requires conveyancers to provide, showing: (1) that the parties have authorized the transactions and have proper capacity; (2) that suitable steps have been taken to confirm the parties’ identity; (3) that any statutory provisions have been complied with or do not apply; and (4) that the supporting documents for the transaction have been retained. Before the introduction of the Landonline system, lodged documents were accompanied by supporting evidence, such as parties’ authorizations, which allowed the registry staff to check their legality before deciding to register the transaction. With the new system, conveyancers simply certify this legality and retain supporting documents, which might be audited ex post by the registry. Conveyancers were also reluctant to alter the register directly, without manual review by the registry staff. The reform transferred to them responsibilities and risks previously

⁶ The new system is extensively discussed in Grinlinton (2003). For descriptions, see Muir (2003) and Greenwood and Jones (2003). Electronic registration was launched by the Land Transfer (Computer Registers and Electronic Lodgement) Amendment Act 2002; electronic lodgment became mandatory on 23 February 2009, some public counters were closed and the remainder provide limited services (LINZ, 2009a). In March 2009, 92.0% of all lodgments were electronic (LINZ, 2009b, Table 3).

borne by the registry, and this caused a low rate of voluntary up-take of electronic conveyancing (O'Connor, 2006, p. 3).

The effects of the reform are still controversial, raising two main issues: incidence of errors and risk of lawyers' fraud. On the one hand, it was claimed that the system not only did not reduce security but could actually enhance it due to the greater involvement of lawyers and their certification role, the automatic checks and audits put in place by the registry and the removal of duplicate titles (Muir, 2003, pp. 317-18; Greenwood and Jones, 2003, pp. 340-41). However, the reform also raised fears that mistaken registrations would increase, given that between 8 and 20 percent of lodgments contained errors before electronic registration (Grinlinton, 2003, p. 218, n. 7). This led this author to advise that the registry should exercise greater powers of correction (p. 344). There were also worries about an increase in opportunistic fraud, with more serious consequences for the security of property rights: if dishonest lawyers transfer land to innocent parties, prior owners lose their titles (Thomas, 2003a), given that, in spite of the lack of independent review, the legal consequences of registration remained those of a Torrens registry, protecting *in rem* innocent third party acquirers.⁷ It is likely that a high incidence of errors and fraud would trigger a backlash against Torrens, at least with respect to maintaining indefeasibility of title.

The system is still too new for these possible effects to be fully assessed. Lenders answering a survey by the New Zealand Law Commission (NZLC, 2008) claimed that both simple and serious errors had increased, including errors in relation to priorities, omitted mortgages and estates. These are errors that in the past the registry staff would have identified and avoided before registration. After the reform, they require reworking a posteriori. The legal profession, however, answered that errors had not increased. In fact, the rejection rate for electronic lodgments was relatively high, about 16 percent, in 2009, within the pre-reform range reported above. This number is hard to evaluate, however, given the move from manual to automatic

⁷ The New Zealand registry indeed offers immediate indefeasibility diluted by a set of judicial interpretation that tend to treat knowledge of opposing interests as fraud (Mason, 2003; Blanchard, 2003).

checks. Furthermore, it refers to an interim period after more complex instruments started to be lodged electronically, so it might be a transition spike.⁸

As to fraud, lenders who responded to the Law Commission survey asserted that the risk of wrongful activity had been reduced by removing the duplicate certificate of title and granting access to the register only to authorized conveyancers. However, new possibilities of fraud were soon demonstrated by cases in which transactions were registered before being completed (e.g., McBeath, 2003), and confirmed by cases of mortgage fraud using false identities (MacLennan, 2005), prompting proposals to strengthen security by requiring rightholders' consent before registration (MacLennan, 2006). Moreover, some uncertainty remains about the level of settlements reached by the government for fraudulent and incompetent dealings.

Overall, the effects are hard to evaluate because of lack of data and the short time lapsed. Most of the commentators may be partly right but they may be referring to different samples of transactions. They may also be weighing incidences of error and fraud differently. For instance, in many registration systems registrars have poor incentives when reviewing transactions for registration, which often leads to costly delays (the case in New Zealand before the reforms) and may end up in excessively lax control. In such a context, a reform that enhances conveyancers' responsibilities and liability for any registration failure (and for their certification of clients' signatures, as in New Zealand) may improve *average* quality. However, if this is implemented by granting registration powers to conveyancers, it may also lead to an increase in fraud by conveyancers, as marginal conveyancers will be undeterred from committing fraud by liability concerns. In other words, the strengthening of average quality is compatible with a greater risk of very poor quality in a few fraudulent transactions.

These effects need to be analyzed in the long term, to observe how parties and conveyancers learn to game the system, how they behave in periods of financial distress, and how the courts and the public react to a possible surge in the number of dispossessed owners or to a series of well-publicized scandals. A possible reaction to prominent cases of fraud would be the demise of

⁸ According to personal communication with the New Zealand registry.

Torrens registration, at least in practice, by judicial decisions that erode indefeasibility effects. It should be remembered that even though the Ontario online registration system maintained registrars' review, it moved in 2006 from immediate to deferred indefeasibility. In New Zealand, some experts advocate formal elimination of indefeasibility (Greenwood and Jones, 2003, pp. 344-47), which would transform the system from a Torrens registration of rights to a mere recording of deeds. In fact, they consider that indefeasibility is already a myth from a practical point of view (p. 345). If they are right, it could also be argued that the reform did not worsen the functioning of the registry because that functioning was in fact already closer to that of a recording of deeds system than a register of rights.⁹ Furthermore, checks made after registration would, at best, detect fraud after the event, when the results are in theory irrevocable. And enhancing the Registrar's powers of correction for such cases might also dilute indefeasibility.

In addition, it would be difficult to carry out a cost-benefit analysis of the reforms because of substitutions between the conveyancers and the registry. For example, one of the main reasons for implementing the electronic system in New Zealand was a desire to avoid delay in registration. But lawyers' compliance duties have substantially increased in cost and time under the new system, leading some firms to quit conveyancing practice altogether. Many public single-window and one-stop-shop initiatives tend to integrate tasks that private agents perform better. The New Zealand reform may have erred in the opposite direction.

3. Plans in England and Australia

The original intention of England's Land Registration Act 2002 was ambitious. Its aim was that contracts, transfers and mortgages were to be prepared, signed and completed electronically

⁹ "From a practical perspective, there is a good case to argue that indefeasibility is a myth.... The question needs to be asked whether or not it is time to reward the real victim in the scheme of things, that is, the original registered proprietor. Is it not more sensible to offer compensation, albeit in limited defined circumstance, to innocent purchasers and mortgagees...?" (Greenwood and Jones , 2003, pp. 345-46).

and processed by the registry's systems automatically. This would eliminate the registration gap by making registration simultaneous with completion (Land Registry, 2005, p. 17). It was planned that "solicitors themselves would make the register entries consequent upon a transaction, in dummy form before the transaction is effected and then in final form on completion" (Cooke, 2003b, p. 290).

The registry would however carry out "validation" during the drafting stage, detecting errors and inconsistencies and prompting conveyancers to amend documents before execution and completion. In this "front end" validation, the registry would check for the absence of conflicts between transaction and registered data, making sure, for example, that the seller is the registered owner, prompting for necessary changes and creating "notional registers" showing the expected result of any particular transaction (Land Registry, 2002, p. 44). After the contract but before completion, the electronic transfer and the draft changes to be made to the register would thus be approved by the registry (Abbey and Richards, 2002, p. 109). The registry would retain full control over changes in the register but the validation process was planned to become increasingly automatic.

It was expected that only a small proportion of applications would require attention by registry staff. It was also understood that conditional registration would be necessary for problematic cases, in which not all problems can be resolved before completion. Such conditional registrations would largely defeat the goal of simultaneous completion and registration (Land Registry, 2003, pp. 93-95), but were seen as better than the previous delays. Consequent to review by registrars that applications to register are in order (Section 16 of the Land Registration Rules 2003), half of the applications for registration generate requisitions in the current paper system (Land Registry, 2002, p. 44).

Progress towards electronic registration has been slow, however. Developing the technology turned out to be much more difficult and costly than expected, and the costs became even harder to justify with the dramatic slowdown suffered by the real estate market since 2007.¹⁰

Moreover, not all conveyancers supported moving out of the paper-based system. A major difficulty faced when planning for electronic transfers was having conveyancers sign on behalf of their clients. This requires transactors to sign powers of attorney, partly defeating the purpose of the reform, as there were doubts about the legality of less formal solutions for representation, and they would increase conveyancers', rightholders' and acquirers' risk. In particular, conveyancers feared that their clients might later deny that they had given authority to sign, further increasing an already risky activity.¹¹

More importantly, rightholders may reasonably fear the consequences of fraudulent signing and registering of transactions by conveyancers. Given that registered rights enjoy qualified indefeasibility,¹² the consequences would be similar to those discussed for the New Zealand case: i.e., a greater incidence of fraud would make indefeasibility unsustainable in the long term and debase the registry into a mere recording of deeds.

Consequently, in addition to providing online access to the registered information, the electronic services available are in practice limited to electronic discharges, which are directly accessible to *lenders*, so that they can remove legal charges from the land registry subject only to automatic validation. Pilot services also depart from agency registration by requiring the electronic signature of rightholders. Both the "Electronic Charge" and the "Business Gateway"

¹⁰ In fact, in 2009 the Land Registry launched an extensive downsizing effort (O'Connor, 2009). See also "Land Registry Five Year Transformation Programme" (http://www1.landregistry.gov.uk/info/noticeboard/item/?article_id=20323, visited November 8, 2009).

¹¹ Conveyancing is already risky for conveyancers. According to the director of the Solicitors' Indemnity Fund, over half the claims against English solicitors, in both number and value, are linked to conveyancing practice (Abbey and Richards, 2007, p. 29).

services require *borrowers* to sign deeds electronically via the Land Registry system for them to be legally valid.¹³

Two common features of these solutions are remarkable: the system requires the electronic signature of rightholders, without conveyancers being granted powers to apply for changes to the register; and rightholders are allowed to apply but only against their interest: for discharges and charges, it is the lender and the borrower signatures which are respectively required.

Something similar is envisaged for electronic transfers. Initially, these are to be limited to the simplest residential transactions: transfers and mortgages of whole, plus discharges of mortgages of whole, as anything else seems to be too complex.¹⁴ The key simplifying element is that in all these cases registration acts against individual declarations to the registry. The only requirement is that the authenticity of such declarations must be checked. But the complexity of modern law with its multiplication of rights often makes apparently simple cases more complex than they seem. For example, the increasing number and variety of rights granted over the family home to spouses who are not owners makes it necessary to collect their consents; otherwise, the acquirers' titles would be burdened with overriding interests.

Developments in Australia share some features with England. The State of Victoria led electronic registration with a system called Electronic Conveyancing Victoria, which was theoretically able to handle both registry lodgment and financial settlement. But in 2004 solicitors almost unanimously rejected the possibility of agency registration because it

¹² See, e.g., Fox (2005) and Nogueroles (2007, p. 132). Cooke is more cautious about the possible interpretations that courts might make with respect to indefeasibility under the 2002 Act (2003a, pp. 100 and 122-28).

¹³ See Land Registry, "Current E-Services," <http://www1.landregistry.gov.uk/e-conveyancing/currservice/>; and "Pilot E-Services," http://www1.landregistry.gov.uk/e-conveyancing/pilot_es/. As to the reasons for this change, see Land Registry, "Report on Responses to E-Conveyancing Secondary Legislation Part 2" (http://www1.landregistry.gov.uk/assets/library/documents/secondary_legislation.pdf). (All websites in this note visited August 23, 2009).

¹⁴ Land Registry, "Our Plans for the Future," <http://www1.landregistry.gov.uk/e-conveyancing/futureplan/> (visited November 7, 2009).

transferred risks to them. In fact, even though the system implemented allows only subscribers (mainly, solicitors) to lodge documents which are then reviewed by registrars, the system transfers risks to subscribers because they must act as clients' certifiers. Having cost \$40-50 million, the system registered a single pilot transaction in its 18 first months of operation because both banks and conveyancers refused to participate. Banks were not prepared to participate in a non-national system, and conveyancers had difficulties in obtaining professional indemnity insurance because the risks were considered too high (Fyfe, 2008; Merritt, 2009). Furthermore, the system suffered from a weak legal basis, as the registry relied on contracts to regulate the licensing of subscribers, lacking proper legislative authority (O'Connor, 2006).

At one point the Victoria system was considered the model for a national system, the Australian National Electronic Conveyancing System (NECS), but this now seems likely to develop independently. Agency registration has also been rejected for NECS, so subscribers will be able to lodge instruments electronically but registries will check them and then decide whether or not to register the lodged instrument. NECS, which also includes automatic transfer of funds, also planned that conveyancers would act as "certifiers" of transactors, digitally signing documents on behalf of their clients. This raised the typical worries of increasing fraud, mainly because it would facilitate both direct fraud by conveyancers and unlawful use of their digital signatures by others (Low, 2006, pp. 240-42).

4. Lessons and possibilities

These four experiences provide a rich catalog of the possibilities and difficulties of developing electronic systems of conveyancing and registration. In particular, they illustrate the possibilities for substitution between the tasks performed by humans and computers in different titling systems and the tradeoffs involved in these reforms.

A registry of rights is made up of a registry of deeds (the lodgment or presentation diary) and the register of rights *stricto sensu*, in which only purged, clean titles are entered. Automatic lodgment, allowing conveyancers or subscribers to the electronic system to file their application without human intervention by registry staff, is relatively easy to accomplish, whatever the type

of registry. Conversely, given that the registration decision involves checking that no other property rights are affected by the intended transactions, automating such a decision, that is, substituting the human registrar by computer software, is much more difficult. It is costly in terms of both the effort to develop the system and the additional contractual constraints which will be imposed if a stricter *numerus clausus* is necessary to make the system viable. It is also risky in terms of fraud.

For these reasons, it is easier to fully automate a recording of deeds because it lacks a register of rights. Automating it is equivalent to automating the lodgment or presentation book in a registry of rights. It is important to keep this in mind in reforms. Otherwise, the introduction of electronic registration may inadvertently interfere with the broader decision about the choice of titling system, given that registration of rights or its main attribute, indefeasibility, would be endangered by granting registration rights to conveyancers.

This risk is compounded in the case of a registry of rights with genuine deficiencies in terms of productivity, delay, registration gaps and, often, poor security. A benefit of agent registration is the immediacy of results. However, this benefit may be illusory because it is likely that agency registration will debase a registry of rights into a recording of deeds. Granting conveyancers the right to directly alter the register should speed up “registration”, but would inevitably reduce the legal quality of such rights—properly speaking, rather than speeding up registration it would most likely suppress it. This transformation of the title system might be a sensible move in itself but, whatever its merits, it should be decided on broader grounds, considering many other factors, instead of as an unintentional byproduct of introducing electronic technology. The alternative course of action to debasing the system is to tackle the deficiencies of the registry head-on. This requires changing the incentives of registrars by linking their compensation to performance in terms of both speed and risk.

These reforms pose other hidden dilemmas in addition to this speed versus legal-quality tradeoff. They relate to the standardization of property rights and the partly consequent transfer of costs between conveyancers and registries. Reducing the intervention of the registry staff in checking transactions for legal compliance and the presence of pertinent consents by affected rightholders is easier for standard transactions, which are therefore easier to automate. It is

therefore more viable for German-type systems with abstract (non-causal) property transactions in which the validity of the transaction is independent of the validity of the causal obligation. But there are costs involved in such standardization. Generally, the more abstract and summarized the content of the register, the more parties will have to rely on contract documents, which will have to be kept by conveyancers and parties. This in itself leads to difficulties. In some solutions, there is not even a real simplification but a mere transfer of paperwork, and access to the documents may even constrain some transactions. For example, mortgage refinancing may be hindered by the need to access documents in the hands of lenders.

Moreover, in these reforms registries often invest heavily in order to reduce their future variable costs and transfer them to conveyancers. These tradeoffs should be carefully examined. For instance, savings at the registry are not necessarily good if they are obtained by lowering quality or increasing the costs incurred by conveyancers. And both of these effects are likely when the chosen option is agency registration, moving the titling system from a registry of rights to a registry of deeds. Conveyancers' costs would increase in two ways: first, because they would bear more responsibility for the transaction being filed; second, because they would need to search the title by examining the chain of deeds for the parcel.

Understandably, there would be a parallel transfer of risk and liability between registries and conveyancers. This would tend to pose additional constraints on the structure of the conveyancing market. In general, conveyancers' ability to ensure compliance in the aspects not verified by a registry depends on their incentives, which are mainly defined not only by their position *vis-à-vis* their clients and third parties (e.g., their independence with respect to large parties) and their effective liability regime but also by the intensity of competition among conveyancers. This suggests a tradeoff between competition in conveyancing and conveyancers' ability to check transactions for compliance: the greater the competition, the lesser the ability of conveyancers to preserve the interests of third parties. A similar argument works for conveyancers' fraud. It is intrinsic to competition that some professional firms are brought close to bankruptcy. This greatly modifies their incentives to lower standards in aspects that are not rewarding to clients, and even leads them, in some cases, to commit fraud. When these effects are observed, a logical reaction is to reinforce rules and reduce competition. Thus, the price of greater functions, especially those related to externalities, ends up being reduced competition.

5. Empowering rightholders

Reforms in this area tend to disregard the possibilities created by new technologies to ensure more effective rightholders' consents, avoiding fraud and, in particular, overcoming an essential weakness in all systems with registration of rights: the risk that owners may lose their property right without having granted their consent. This can now be achieved in at least in three complementary ways: dispensing with conveyancers and enhancing security through codes and notices.

5.1. Dispensing with conveyancers

In all sectors, the role played in the productive chain by different types of intermediaries, such as distributors or banks, has been decreasing, as new technologies allow manufacturers and lenders to interact more directly with customers or borrowers. This “disintermediation” process is also active in conveyancing, as new technologies allow parties to interact more directly among themselves and with the registry (Arruñada, 2007). Digital signatures provide a way of authenticating the will of the parties that can be used to complement or substitute the authenticating function of conveyancers and witnesses. The identification task passes to the certifying authority, which has to check individuals' identity when first issuing signatures to them. This makes it possible for rightholders to communicate directly with the registry to formalize their consent to the intended transaction. Digital signatures save time and money because they allow individuals to physically interact just once with the authenticator, the digital signature's certification authority, for all transactions during the life of the identity certificate, instead of once for each transaction. Furthermore, rightholders' consent can be safely gathered without any need for the rightholder to be present at the closing. In fact, there is no need for a physical closing act. Digital signatures may also be safer than traditional methods, especially now that conveyancers do not personally know most of the transacting parties, as they used to do in the past, and have to rely on indirect proof such as identity cards which are easily manipulated. A UN committee concluded that “electronic signatures can be used to authenticate deeds. When they are used there must be certainty of authorship, guarantees that there has been

no change in transit, the signatures cannot be repudiated, and the data remain confidential” (UN-ECE, 2005, p. 15). Moreover, digital signatures are compatible with all sorts of conveyancers’ intervention, which could be either superseded or complemented in a general way or on an optional basis, for all or some types or transactions or parties. For instance, it seems particularly easy for banks to communicate cancellations of mortgages directly to the registry in this way. Digital signatures also have the potential for facilitating do-it-yourself (DIY) conveyancing, at least for the most routine and standardized transactions.

5.2. Enhancing security with codes

A modest way to improve security is to provide rightholders with digital identifier codes (right- and person-specific), known only to the holder and the registry, that they must assign to their conveyancing representatives in order to allow representation or must produce in some other form before registration (Thomas, 2003b and 2003c). This would provide a safer version of the paper certificates of titles used in Torrens registries, which have been eliminated in reforms such as that of New Zealand. Its workings are similar to the “two key” system used for electronic transactions in financial securities, in which both the owner and the broker must provide their unique identifier codes before a transaction takes place (Thomas and Grinlinton, 2005). Moreover, two- or three-key systems tie in perfectly with the theory of property titling (Arruñada, 2003), as they ensure that no property right is affected without its rightholder giving consent to a specific conveyancer or, more directly, to the transaction itself.

5.3. Enhancing security with electronic notices

Similarly, electronic technology reduces the cost of policies requiring the registry to notify affected rightholders of any change in the status of their rights before or even after registration becomes effective, something that could be implemented as a parallel safeguard in most systems. The value of this notification is clearly shown by the emergence of private providers of this type of information in countries where registration fraud has become a serious worry, even if in this

case it takes place after registration. For instance, in Costa Rica, since 2007 a private firm called PPR daily checks a mirror database of the public register to identify transactions which have been registered in the last 24 hours and if any have not been authorized automatically files a caveat.¹⁵ At the least, registries should be allowed to notify registered rightholders about intended changes in their registered rights, as covered by Section 23 of the Ontario Land Registration Reform Act after its 2006 amendment. It is worth mentioning in this regard that the English Land Registry has traditionally notified rightholders about intended changes to the register when the Registry perceives a possibility of fraud or undue influence. Moreover, notification is becoming standard security in all types of computerized registries. For example, the fraud alert systems introduced by section 112 of the 2003 US Fair and Accurate Credit Transactions Act (FACTA) allow consumers to instruct credit reporting bureaus to notify users that the consumer is or might be a victim of identity fraud. Users of consumer reports are then restricted in the type of credit they can extend to that consumer. Some credit bureaus also provide consumers with a monitoring service that alerts them whenever someone asks about their credit (Zetter, 2009). Working on a similar basis is the security trick used by some websites that send an email to all new registrants requiring them to validate their registration before they can start interacting with the website. These are just three examples of the possibilities that new technologies have opened up for protecting individuals and developing customized protection schemes.

Reasons of expediency, security and cost which are often given against empowering rightholders when introducing electronic systems do not hold much water. Empowering rightholders does add a complication and would take additional time and money to implement. Furthermore, many citizens do not yet use information technology. But registration systems are not developed for the short term and should be designed on the understanding that in the near future most, if not all, citizens will use digital signatures. Furthermore, the issuance of electronic signatures linked to the renewal of identity cards, which is well advanced in many countries,

¹⁵ See “¿Qué haría si un día se da cuenta de que su casa, lote o finca *ya no le pertenece?*,”

would avoid most of these difficulties, whatever their other merits. Digital signatures will increasingly be seen as a type of contractual infrastructure similar in nature and importance to the civil registry.

To avoid the greater possibilities for fraud created by electronic conveyancing, some analysts have also called for restricting access to registered professionals and having them certify the identity and authority of parties (e.g., Christensen, 2004). Both aspects are questionable, as they reduce competition and impede disintermediation. Moreover, their effect on security is doubtful, as they facilitate two forms of fraud: identity fraud by third parties, especially when rightholders are not required to sign, and direct fraud by conveyancers who may abuse their certification powers (Low, 2006).

Lastly, empowering rightholders is also costly, but costs differ substantially with the type of empowerment and, more importantly, there is scope for empowering rightholders in a self-sustained way, as they could be given the choice of, for instance, paying a fee to subscribe to a notice service from the registry. In systems of agency registration like New Zealand's, they could also be allowed to choose whether a registration application should include their digital signature before it can be registered, and/or to request that transactions affecting their rights be subject to manual examination by the registrar. These options could be offered on a fee-for-service basis, reducing their cost and maximizing their value.

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