

Richard Field on Technology and Commerce

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[Richard Field is an attorney and legal consultant in private practice in financial systems, electronic commerce and emerging technologies. He has chaired the Electronic Commerce Payment Committee and the Coordinating Committee on International Policy of the American Bar Association, Section of Science & Technology Law, as well as the Committee on Banking of the New York County Lawyers' Association. A biographical profile appears at the end of this article.]

UBIQUITY: Tell us something about the ABA's Section of Science & Technology Law. Are you currently the Chair?

FIELD: I have been Chair-Elect this year, and will be Chair beginning in August 2005. The Section focuses on issues at the cutting edge of science, technology and the law, and the issues go from electronic commerce (one of my areas) into the life sciences, neuroscience and the law, nanotechnology and law, public health and law, that sort of thing. We adjust periodically to reflect new developments. We are organized into committees and task forces, with officers and a council that sets overall Section policy and budgets. We have a Section-issued journal, *The SciTech Lawyer*, and also put out an academic journal, *Jurimetrics*, through Arizona State University College of Law. The Section allows lawyers with interests in these areas to network, learn, and contribute to public debate. Lawyers, together with our non-lawyer associate members, develop the law, write articles and books—we have a book publishing arm—develop and sponsor continuing education programs for lawyers and others, either at ABA meetings or some other places. We have alliances with some other organizations, such as the AAAS, the American Association for the Advancement of Science in Washington. With the AAAS we have a group called the National Conference of Lawyers and Scientists, which meets four times a year and discusses the policy issues that involve both science and law.

UBIQUITY: What is your own background?

FIELD: I am a practicing lawyer. I practice for myself and I have for 12 or 13 years. Prior to that, I had been an in-house counsel for another 12 or 13 years, in technology, in the financial industry. Now, currently much of my focus for clients is the financial industry, but not exclusively. I have undergraduate degrees in engineering and in applied mathematics from Brown University. I didn't practice in science, but went straight into law school at NYU in New York then immediately into law practice and banking as an in-house lawyer. I have interests broadly in science areas, in technology and in harmonizing technology law policy globally.

UBIQUITY: What are your current interests?

FIELD: I'm a member of a number of the organizations in law, the American Law Institute for example. I'm active in policy in e-commerce. This afternoon I am going

to be on a call with the U.S. State Department, among others, on a new United Nations convention that's being drafted on international electronic contracting. I'm currently on the U.S. delegation for that commission – the International Trade Law Commission at the U.N., known as UNCITRAL. I have been active in that for some years. We've worked on electronic signatures and on electronic contracting and a number of other issues.

UBIQUITY: What have you found to be the most intractable issue in the electronic signatures and e-contracting?

FIELD: I'm not sure that anything's been intractable because the convention that we've been working on has progressed pretty well. Now what caused a lot of discussion were issues of regulation versus non-regulation of these kinds of Internet transactions. By and large, European countries tended to be more comfortable with regulating issues.

UBIQUITY: Such as?

FIELD: Such as, if a contract is entered into online it has to be reproducible; of if there's an error, it has to be correctable; if there are requirements that certain things be available to counterparties; then we should put it in this international convention. The U.S. position had tended to be that an enabling approach, coupled with strong party autonomy to allow for adjustment and evolution of business practices, was the correct approach. Also that the convention should be limited to business-to-business, knowing that consumer transactions would be very tough to get global consensus on right now. This took some time, but mostly this approach has prevailed. Occasionally the convention defers to the law of the country governing the contract, which would be the situation today. We haven't tried to deal with validity of specific contract terms, privacy, that sort of thing. However, we believe the convention will encourage the growth of e-commerce in the U.S., in Europe, and I think importantly in developing countries.

UBIQUITY: Before we began this interview you mentioned that you're going to a law conference in China next month.

FIELD: Yes. I was asked to go over to speak at two electronic commerce law conferences being put on, one in Beijing and one in Shanghai, at universities. Mainly Chinese participants, but it's also being co-sponsored by Temple University Law School. China is moving ahead quickly in electronic commerce – it enacted an electronic signature law in April 2005 – but issues like online payment remain problematical.

UBIQUITY: What is the cooperation in these issues between lawyers and computer scientists?

FIELD: It runs the gamut. Within our American Bar Association section, we've had some pretty good discussions and we pride ourselves in bringing together the lawyers and the technologists. In fact, it was at least 12 years ago when one of our groups, the Information Security Committee, got together and more or less invented the field of digital signature law out of whole cloth, taking PKI, certification authorities, etc. and proposing a framework for usage rules and liabilities. They ended up coming up with digital signature guidelines that were very widely disbursed around the world. And that took some years of sitting with the lawyers on one side

of the table and some of the cryptographers and security experts on the other side, not understanding each other at first but finally starting to recognize what it means to have a digital certificate, what goes in the available fields within the certificate, what are the risk issues in cryptography and how they can translate into rules, laws and guidelines, et cetera. Similar work has gone on in other areas of law, science and technology.

UBIQUITY: Yet it's not all harmonious.

FIELD: Oh, no. In many areas, there are battles going on – as in the copyright area, for example, where digital rights management sometimes brings out conflicts between copyright law principles and technology solutions, between freedom to use or sell materials that might be copyrighted and new techniques to prevent use or sale, and then whole movements like open source where the idea is to remove certain copyright restrictions but liability is sometimes uncertain. So there's an interaction between lawyers and technologists, but there's some competition. Will technology replace some functions of the law? You hear about that in DRM obviously – that you don't need to rely on copyright law at the same level if you are protecting things through technology, or contract provisions. Of course intellectual property owners might say, "Obviously we still want all copyright protections even with technology solutions" – but has the technology solution gone through public debate, hammered out by all sides, to make it as fair as a legislative solution may have been? It's a big world out there and lawyers have a role to play and scientists and technologists have a different role. My philosophy I think at a macro level is, we each come with a certain wisdom, but lawyers' wisdom doesn't collectively change over time. Lawyers aren't getting smarter. In fact, the world isn't getting wiser. What does change is the technology. That's the random event in the world.

UBIQUITY: What are the implications of technology's role as the random event in the world?

FIELD: As technology increases the aggregate of knowledge, it drives everything else. I always say to start with that premise. Technology is driving things, new invention is driving things. On the business side, what it does is enable new forms of business. It always has. I mean, you invent a ship that can travel across the ocean, you immediately come up with new business models to take advantage of it. And business has always come up with new models to take advantage of new techniques, and the Internet is no different. Any other science area that we're dealing with is no different, in genetics, or whatever else.

UBIQUITY: And law -- ?

FIELD: Law then follows the new model of business, the new models brought about by technology. Sometimes it directs business practice; sometimes it enables it. Another philosophy I've come to embrace is that the law is rarely technology neutral. There's a lot of misguided talk about technology neutrality, and of course you've heard it in the electronic signature law debates and in a lot of other things, but if you look at the law of signatures, people have tried in the past 10 years to say, well, let's just use the neutral law, which is the law of paper signatures, and apply it to the Internet. But my view is, no, the paper isn't neutral, it's very specific technology. If you have a contract on paper, you've got a biometric signature. you've got something where the signature, the authentication device, is tied to the message because it's on the same piece of paper, and if it's ever changed it can be detected.

You've got a situation where the parties generally are face-to-face with each other in signing a contract, so it's fair that the relying party should be responsible if it's an interloper, if it's a counterfeit, fraudulent signature on the other side.

UBIQUITY: And how does the paper model fit the Internet?

FIELD: It doesn't necessarily fit the Internet well at all, because lots of things are different. You're not face-to-face. You don't have necessarily biometric identification that's tied to the message. Now PKI brings you some of that by analogy, but it's different. And in fact, paper technologies are different from each other. When you have checks, the law of checks in the Uniform Commercial Code changes the liability. Recognizing that you're not face-to-face for the most part and recognizing that the recipient can't always know when the signer has forged a signature, it says that the recipient is liable and that the innocent person whose name has been signed in vain isn't liable, unless it's he that's been negligent and his negligence contributed to the forgery. So there's a whole different rule for checks and I say that's because it's not face-to-face. The setup is different. A lawmaker should look at every situation as though it were technology and develop the law to fit that. Good laws have always been crafted to fit the technology that they're meant to address.

UBIQUITY: And how does one craft the law to fit the Internet?

FIELD: The Internet isn't necessarily analogous to anything that went on before. It may be something completely new. Now what's not easy to do as a matter of social policy is to figure out a whole new set of rules, but it's not always the right answer to just use an analogy and try to say, "This is just like something that happened before" – because the technology is different. You see that recognition reflected in online contracts. Now, I also, speaking on payments law, have made that same argument for electronic money: you've got technology changing, enabling new business patterns. And once you've got the new business patterns, business demands ways to get paid that will work in that new situation, especially when we are seeing in some countries what we say in the U.S. a few years ago – all these new kinds of e-payment methods that were just kind of clever and really brilliant, but falling right and left.

UBIQUITY: Why did they fall right and left?

FIELD: Well, I think historically you're dematerializing money in a sense; you go, over a period of thousands of years, from trading cows, to gold, which is more transportable. And then you find that gold is not even good enough, so you use paper that represents gold and you can travel 100 miles with it. Then you invent checks and bring in third party trust models, and on and on. So as the business model enlarges, the needs to pay change and they're all subtle. And what's going on with the Internet is, among other things, is the creation of an entirely new business model. You've got a new world of counterparties you can deal with whom you have never met before and who don't trust you. Now how do you set up a payments system that works in that world when you don't trust them and they don't trust you?

UBIQUITY: The solution?

FIELD: At first, credit cards actually seemed to be a brilliant solution, very minimal, very cheap. In credit cards, you have got sellers who are willing to give up their goods and ship their goods, knowing that they've got a credit card payment even

though the credit card payment can be reversed, but there is a cost to the customer to reversing, with the credit card company paternalistically standing over their people. And if they start getting too clever they're going to cut out their credit and sellers know that. So sellers rely on the credit coming in. Buyers equally are saying, we don't know that the seller is ever going to send us the stuff, but we're willing to send the credit card payment because we can get it back if something bad goes on. And it's an extremely cheap way of doing it for those who can, and in addition it replaces online arbitration in some ways. The credit card system, almost by accident, has set up a way to handle transactions for pennies by giving each party just enough assurance that for a small chunk of transaction fees they're willing to release their end of it without full assurance that they're going to get anything. And for consumers, the law overrides contracts to provide additional protection. Which is why in the U.S. credit cards have really been the way to go.

UBIQUITY: Let's move from money to information. You'll remember that maybe 10 years ago a lot of people were saying that "information wants to be free." What do you think of that? Does information want to be free?

FIELD: Yes, information wants to be free, but there are many legitimate interests that don't necessarily want it to be free in the broadest way, because information is also value: it's money. So there are conflicting, competing interests. Information wants to be free in the sense that it is the building block of everything else and it is most useful socially. I would say the infrastructure of the Internet as it was set up was based on information being free, and that doesn't disappear. That core, the way it was originally set up had less to do with corralling information so much as in communicating freely. Since then, as it's turned into more of a business utility, the counter interests have come in and some of the technology now has the effect of pulling back on that to some degree. But the core of the Internet promotes freedom. The core technology infrastructure promotes freedom of information, and that's a hard thing to get around. And maybe that's the great achievement of the Internet architecture.

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[Richard Field is an attorney and legal consultant in private practice in financial systems, electronic commerce and emerging technologies. He has chaired the Electronic Commerce Payment Committee and the Coordinating Committee on International Policy of the American Bar Association, Section of Science & Technology Law, as well as the Committee on Banking of the New York County Lawyers' Association. He serves on the United States delegation to the Working Group on Electronic Commerce of the United Nations Commission on International Trade Law, and has been called upon as an expert advisor to the UNCITRAL Secretariat. A member of the Private International Law Advisory Committee, U.S. Department of State, Mr. Field has also assisted the European Parliament in its study of electronic payment systems and commerce, the Ministry of Economy, Trade and Industry of Japan on issues of network security, the OECD on consumer authentication, and the Korean Institute of Technology and the Law as an International Advisor. He was a participant in the Electronic Commerce Project of the ICC.]

A member of the American Law Institute, Mr. Field was an advisor to the National Conference of Commissioners on Uniform State Law project to revise the U.S. payment laws of the Uniform Commercial Code. He co-authored the ABA's Model

EDI Payments Agreement (1992) and was a contributor to its Digital Signature Guidelines (1996).

Mr. Field is an Affiliated Research Fellow of the Columbia Institute for Tele-Information (CITI), and has been an Adjunct Professor of Electronic Finance at Columbia University Graduate School of Business. A former in-house advanced technology and payment counsel at Manufacturers Hanover Trust Company and at Morgan Guaranty Trust Company, Mr. Field holds undergraduate degrees in applied mathematics and engineering from Brown University, and a J.D. from New York University.]

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