SERVING THE AGRICULTURAL CLIENTS OF TOMORROW

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I. INTRODUCTION

In *Powershift*, Alvin Toffler relates the story of St. Augustine who wrote of his mentor, St. Ambrose, Bishop of Milan, as the brainiest person in the 5th Century world because he was so learned he could read without moving his lips![1] Toffler uses this story to illustrate how the entire structure of human knowledge has changed—it is now the "ultimate substitute" for other resources.[2] He reminds us in his provocative trilogy, *Future Shock*, *The Third Wave* and *Powershift*, that the major technological, economic, and social changes we are experiencing as we move into a new century indicate the rise of a new post-industrial civilization—a Third Wave if you will—following the First Wave (invention of agriculture 10,000 years ago) and the Second Wave (the industrial revolution).[3] This massive change will affect all aspects of our lives. Among the likely candidates for restructuring is the "global law machine," which, Toffler finds, will have to be fundamentally altered to "fit the needs of a radically changed world."[4] Agriculture also will change dramatically and, potentially, "with the help of computers, genetics, satellites, and other new technologies, could someday be more advanced, more progressive than all the

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1. ALVIN TOFFLER, POWERSHIFT 84 (1990).
2. *See id.*
3. ALVIN TOFFLER, THE THIRD WAVE 20 (1980).
4. *Id*. at 397.

smokestacks, steel mills, and mines in the world. Knowledge-based agriculture may be the cutting edge of economic advance tomorrow."[5]

What does this portend for the agricultural lawyer of the future? Clearly, new legal issues will arise that are generated by the application of new technologies in agriculture, some of which already can be seen in the use of biotechnology and the use of satellite technology for "precision" farming. Furthermore, the continuing social and economic changes suggest lawyers will have to deal with highly diverse populations on a global level. This may raise questions about the adequacy of the preparation of today's generation to deal with tomorrow's problems.

II. NEW LEGAL ISSUES

One certainly can expect that the changes in agriculture (more "knowledge-based") will create legal issues not previously encountered. Some of these issues will evolve because of the use of the new technology to facilitate transactions. For example, Professor Don Pedersen has evaluated the potential legal problems that arise as electronic data interchange is substituted for negotiable paper documents of title in agricultural commodity transactions.[6] The evaluation of new issues can be seen already in the initial applications of biotechnology in agriculture. To illustrate, the most basic of genetic manipulation techniques—embryo transfer in livestock—has generated the most mundane of questions under Article 9 of the Uniform Commercial Code. Are embryos an "increase" of livestock covered by an after acquired property clause in a security agreement? This issue was before the Oklahoma Supreme Court in *Fairview State Bank v. Edwards*.[7] In *Edwards* the court found the embryos to be included in the descriptive term "increase" although the debtor was not in the embryo transfer business at the time the security agreement was made.[8]

Genetic engineering techniques in livestock and plants will, no doubt, generate other basic commercial law questions in the future. Warranty issues come immediately to mind. Recent reports of increased bollworm infestation in Bt cotton raises questions of the effectiveness of the "insect resistant" cotton for which growers paid an extra $32 per acre "technology fee."[9] (Bollgard, developed by Monsanto, has a natural insecticide built into it to fight tobacco budworm, but is not resistant to bollworm).

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5. ALVIN TOFFLER, POWERSHIFT 411 (1990).

6. Donald B. Pedersen, *Electronic Data Interchange as Documents of Title for Fungible Agricultural Commodities*, 31 IDAHO L. REV. 719 (1995).

7. Fairview State Bank v. Edwards, 739 P.2d 994 (Okla. 1987).

8. *See id.* at 998.

9. Doug Thompson & Garry Mitchell, *Bollworm Infestation Disillusions Growers of 'Insect Resistant' Cotton*, ARK. DEMOCRAT-GAZETTE, July 27, 1996, at 1D.; Doug Thompson, *Rise in Bollworms Mars the Success of Bollgard Cotton*, ARK. DEMOCRAT-GAZETTE, Aug. 5, 1996, at 1D.

It is not only the question of effectiveness of new products that raises concerns. There is also the issue of potential harm resulting from the creation and release of modified organisms. While the risks may in fact be slight, the question of liability for any resulting harm is one that our existing system may be ill equipped to handle.

The modern rule of strict liability for defective products that turn out to be unreasonably dangerous would, at first blush, appear to afford a basis for relief from genetically modified organisms or products.[10] However, if the harmful thing is a living organism, some courts may have difficulty in applying the usual liability rules.

In a 1982 article titled, *The Applicability of Strict Liability to Sales of Live Animals*, three cases were reviewed which had considered the applicability of strict liability concepts from the Restatement (Second) of Torts, section 402A, in the sale of animals.[11] These were apparently the only cases through that year to have considered the question. Two of these were intermediate appellate court decisions in Illinois in which the theory was found inapplicable;[12] one was a New York Supreme Court decision which allowed a cause of action on strict liability in tort where sick hamsters had apparently transmitted a disease to humans.[13]

The central question in these cases is whether a living creature can be considered a "product" within the concept of strict liability[14] as developed in Section 402A of the Restatement (Second) of Torts and as set out by statute in many states.[15]

While application of the strict liability concept in the sale of animals is premised on the construction of the word "product," if a court finds animals to be "products," it also must find that the defective condition of the product (animal) renders it unreasonably dangerous to the user or consumer.

In the best known of the Illinois cases, *Anderson v. Farmers Hybrid Cos.,* the court dealt specifically with the issue of whether defective livestock would be

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10. RESTATEMENT (SECOND) OF TORTS § 402A (1966).

11. Daniel A. Harvey, Note, *The Applicability of Strict Liability to Sales of Animals*, 67 IOWA L. REV. 802 (1982).

12. *See* Anderson v. Farmers Hybrid Cos., 408 N.E.2d 1194 (Ill. App. Ct. 1980); Whitmer v. Schneble, 331 N.E.2d 115 (Ill. App. Ct. 1975).

13. *See* Beyer v. Aquarium Supply Co., 404 N.Y.S.2d 778 (Sup. Ct. 1977).

14. *See id.; Anderson,* 408 N.E.2d at 1194, *Whitmer*, 331 N.E.2d at 115.

15. Section 402A provides:

> (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
> (a) the seller is engaged in the business of selling such a product, and
> (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

RESTATEMENT (SECOND) OF TORTS § 402A (1966). *See, e.g.,* ARK. CODE ANN. §§ 16-116-101 to -107 (Michie 1987 & Supp. 1995) (providing a statute incorporating this concept).

considered products, and found the strict liability theory inapplicable.[16] In that case the buyer sued the suppliers of allegedly defective gilts that were to be used for breeding purposes.[17] The gilts apparently had a contagious and infectious disease called "bloody dysentery" which spread to the buyer's existing swine herd.[18] Because warranties had been disclaimed, the buyer proposed a strict products liability theory as a basis for recovery.[19]

The court refused to extend the strict liability concept to living creatures in part because they were not contemplated as "products" under generally accepted principles of products liability law but also because the purpose of strict liability would be defeated if the concept extended to "products whose character is easily susceptible to changes wrought by agencies and events outside the control of the seller, which is the case with living creatures."[20] The court noted that living creatures are in a constant state of interaction with the environment and their nature cannot be fixed prior to the time they enter the stream of commerce.[21]

A few courts have been willing to apply strict liability in the sales of animals. *Beyer v. Aquarium Supply Co*., did so.[22] In that case the New York court rejected the argument that the strict liability concept should apply only to manufactured products on the basis that diseased animals pose a risk to human safety as do manufactured products.[23]

The courts remain divided on the question. Since 1982 only four additional cases have raised the issue. Two of those take the Illinois position, that a live animal cannot be considered a product; two suggest the New York approach is preferable.

In *Kaplan v. C Lazy U Ranch*, the federal court, applying Colorado law, rejected the contention that a saddled horse could constitute a product.[24] The case involved injury to a guest by a horse which allegedly would expand its chest while being saddled, meaning the saddle could slip to the side.[25] The court rejected the argument that the horse was a product, stating, "[c]learly, no person ever designed,

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16. Anderson v. Farmers Hybrid Cos., 408 N.E.2d 1194 (Ill. App. Ct. 1980); *see also* Whitmer v. Schneble, 331 N.E.2d 115 (Ill. App. Ct. 1975) (holding that a dog was not a "product" in a dog-bite case where the plaintiff attempted to use the strict liability concept).

17. *Anderson*, 408 N.E.2d at 1195.

18. *See id.*

19. *See id.*

20. *See id.* at 1199.

21. *See id.*

22. *See* Beyer v. Aquarium Supply Co., 404 N.Y.S.2d 778 (Sup. Ct. 1977).

23. *See id.* at 779; *see also* Daniel A. Harvey, Note, *The Applicability of Strict Products Liability to Sales of Live Animals,* 67 IOWA L. REV. 803, 813 (1982) (discussing *Beyer v. Aquarium Supply Co*.).

24. *See* Kaplan v. C Lazy U Ranch, 615 F. Supp. 234, 238 (D.C. Colo. 1985).

25. *See id.* at 237.

assembled, fabricated (except the Greeks at Troy), produced, constructed, or otherwise prepared a horse."[26]

The most recent court to consider the issue was the Missouri Court of Appeals in *Latham v. Wal-Mart Stores, Inc*.[27] In *Latham* a purchaser's husband allegedly contacted psittacosis, a disease transmittable to humans, from a parrot.[28] The court reviewed all of the prior cases but "agree[d] with the Illinois position that due to their mutability and their tendency to be affected by the purchaser, animals should not be products under § 402A as a matter of law."[29]

Two courts have taken the opposite view. In *Sease v. Taylor's Pets, Inc.*, the purchaser of a pet skunk, along with friends of the purchaser, all who had been in contact or bitten by the skunk found to be rabid, brought suit under the Oregon statute that is identical to Section 402A.[30] The court reviewed the Illinois and the New York cases and held the live skunk was a "product" within the meaning of the Oregon statute.[31] The court found the statute applicable to products that are "subject to both natural change and intentional alteration."[32] The court emphasized that Comment (e) of the Restatement (Second) of Torts § 402A makes it clear that a "product" need not be manufactured or processed.[33] Comment (e) uses a poisonous mushroom example which although "are neither cooked, canned, packaged, nor otherwise treated" are subject to liability under the section.[34]

Another case that takes issue with the Illinois approach is *Worrell v. Sachs*, a 1989 Connecticut case involving a child's serious eye damage and loss of sight allegedly resulting from exposure to a diseased, parasite-carrying puppy.[35] The court indicated that in those cases involving a diseased condition (as opposed to animal behavior), this is a defect relevant to the animal as a product.[36] The court suggested that the Illinois approach confuses proof of liability with status. According to the court, "it does not necessarily follow logically, that inability to prove a case because of mutability means that an animal is not a product at all. Rather it means that liability may not attach to that particular product."[37]

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26. *Id.* at 238.
27. Latham v. Wal-Mart Stores, Inc., 818 S.W.2d 673 (Mo. Ct. App. 1991).
28. *See id*. at 674.
29. *Id*. at 676.
30. Sease v. Taylor's Pets Inc., 700 P.2d 1054, 1058 (Or. Ct. App. 1985).
31. *See id.* at 1059.
32. *Id.* at 1058.
33. RESTATEMENT (SECOND) OF TORTS § 402A cmt. e (1966).
34. *See id.*
35. Worrell v. Sachs, 563 A.2d 1387 (Conn. Super. Ct. 1989).
36. *See id*.
37. *Id.* at 1387.

The court indicated that the reasoning of the New York court in *Beyer* and the reasoning of the Oregon court in *Sease* were persuasive and that, at least where injury resulted to a consumer from a diseased pet, the strict liability could be used.[38]

Although the courts are divided on the issue, if the reluctance to extend the concept of strict liability to living things is overcome, it may not be difficult to find a product developed by biotechnology both defective and unreasonably dangerous. A more serious obstacle in use of the theory may be that intangible commercial loss or pure economic loss is ordinarily not recoverable in strict liability but is normally considered under the provisions of the UCC rules governing commercial transactions. Section 402A of the Restatement (Second) of Torts requires that the unreasonably dangerous product must cause physical harm to the user or consumer or to his property.[39] If the only injury is to the product—the modified organism—the purchasers may be limited to UCC remedies.

The use of biotechnology raises other interesting, but unanswered, legal questions as well. Of particular concern may be the nature of agreements under which producers may use products developed by biotechnology.

Professor Neil Hamilton reviewed a number of these provisions and noted that the contractual provisions in seed cases typically commit the producer to not sell any seed for breeding or variety improvement purposes or even save any of the harvested crops as seed.[40] These agreements assert the proprietary interest of the company in the parent seed and seed crop.[41] Not only do these agreements restrict the use the grower may make of the products, but they also may give the technology owner unlimited access to the grower's property. Thus, one can see developing an unusual clash of property rights—one party's rights to protect intellectual property; another's concern with the land on which the technology is being used.[42]

This same conflict can emerge in the context of another application of technology—that of "precision" farming. Precision farming combines the technology of satellite imagery, global positioning systems, application rate controllers, yield monitors, and computer analysis to provide detailed site specific information for individual farm fields.[43] This technology has the potential of providing detailed information on growing crops and, when combined with soil mapping and sampling, also can be used for precise application of nutrients, to detect troublespots in fields,

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38. *See id.* at 1388.

39. RESTATEMENT (SECOND) OF TORTS § 402A (1966).

40. *See* Neil D. Hamilton, *Why Own the Farm If You Can Own the Farmer (and the Crop)?: Contract Production and Intellectual Protection of Grain Crops*, 73 NEB. L. REV. 48 (1994).

41. *See id.*

42. *See* Curt Hudson, *Won't Sign Away Property Rights*, FARM J. July/Aug. 1996, at 5 (Letter to the Editor) (discussing farmer's reluctance to sign agreement with Monsanto for Roundup Ready soybeans because it gives the company a right to enter his bean fields for three years without notice).

43. Kevin P. Corbley, *One-Meter Satellites: Practical Applications by Spatial Data Users; One-Meter satellites offers high-resolution images for geographic information systems*, GEO INFO SYSTEMS, July 1996, at S39.

and to estimate yields. Yield mapping equipment provides data at harvest that can be used for the next year's field preparation.

The knowledge base gained from the use of this technology can be extensive. Whose information is it? Because commercial services often will provide the analysis of the data obtained in this fashion, the issue of ownership, control, and use of the data may be of concern, particularly in landlord-tenant situations. Likewise, the potential use of information obtained by "spying" on neighboring farms may raise troubling privacy issues. While the USDA may use the satellite technology for crop estimates as a replacement for farmer polling data,[44] the commercial misuse of similar information may be of concern.

Clearly, the use of technology means the agricultural lawyer of tomorrow must become more familiar with areas of the law previously reserved to the legal specialist. For example, as commercial application of technology increases, conflicts over intellectual property rights will increase. This can be seen in the recent disputes involving the Plant Variety Protection Act and trade secret law in seed cases. *Asgrow Seed Co. v. Winterboer*[45] and the recent amendment to PVPA[46] effectively eliminate "brown bagging" and restrict the farmer's saving of seed to amounts necessary to replant his farm acreage. Similarly, *Pioneer Hi-Bred International, Inc. v. Holden's Foundation Seeds, Inc.* confirmed that trade secret protection could extend to genetic plant material.[47] The bubbling conflict between the efforts in NAFTA and GATT along with the UPOV (International Union for the Protection of New Varieties of Plants) to protect intellectual property rights and the goals of the Convention on Biological Diversity to share benefits of genetic resources raises these questions to the international level.[48]

III. NEW ECONOMIC AND SOCIAL SITUATIONS

A number of studies have focused on the changing economic and social situation into the next century and the implications these changes will have on law and the legal profession. Among these are the "Delphi Study" conducted by Georgetown University and the study of the Hudson Institute completed for the Federal Courts Study Committee both completed in 1989. Professor Thomas Baker

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44. Doug Thompson, *Satellites Size Up Crops Across Delta*, ARK. DEMOCRAT-GAZETTE, July 18, 1994, at 1D.

45. Asgrow Seed Co. v. Winterboer, 115 S. Ct. 788 (1995).

46. Plant Variety Protection Act Amendments of 1994, Pub. L. No. 103-349, 108 Stat. 3136 (1994).

47. Pioneer Hi-Bred International, Inc. v. Holden's Foundation Seeds, Inc., 35 F.3d 1226, 1236 (8th Cir. 1994).

48. For a thorough discussion of these issues, see Neil D. Hamilton, *Who Owns Dinner: Evolving Legal Mechanisms for Ownership of Plant Genetic Resources*, 28 TULSA L.J. 587 (1993).

summarized these studies by identifying the basic forecasts.[49] Population in the United States will continue to increase though the rate of growth will decline.[50] The population will change significantly in age (older) and racial composition (more diverse with proportional increases in the percentages of nonwhite ethnic and racial groups).[51] As a result, issues related to the elderly and cases dealing with equal opportunity and discrimination, employment rights, and safety issues will increase.[52] Courts increasingly will be called upon to resolve clashes between our civil and criminal norms and traditions from other cultures.[53]

Legislatures will continue to criminalize more behavior.[54] The criminal dockets will increase with new offensives in crimes involving computers and those involving international transactions.[55] Likewise the civil caseload will continue to expand given developing areas of tort litigation such as health and environmental matters and more cases involving science and technology.[56] Many of these issues will be global in nature as internationalization of the economy continues.[57]

A major aspect of the rapid change brought about by the Third Wave is what Toffler calls a "new system for making wealth "[that is] totally dependent on instant communication and dissemination of data, ideas, symbols, and symbolism.[58] This new wealth creation system takes on a global dimension as national boundaries become less meaningful. As a result, the agricultural lawyer of tomorrow will need to be acquainted with such diverse procedural information as: (1) the dispute resolution procedures of NAFTA and GATT; (2) when to use the Foreign Sovereign Immunities Act; and (3) the remedies available under the United Nations Convention on Contracts for the International Sale of Goods (CISG). Lawyers will necessarily become familiar with aspects of civil procedure in the European Court of Justice, in civil law countries and even in those whose legal heritage we share.

A particularly striking example of changes brought about by internationalization of the economy is the dispute resolution procedures of NAFTA and GATT. In NAFTA a bi-national dispute resolution mechanism is contemplated

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49. Thomas E. Baker, *A View to the Future of Judicial Federalism: "Neither Out Far Nor Deep,"* 45 CASE W. RES. L. REV. 705 (1995).

50. *See id.* at 710.

51. *See id.*

52. *See id.* at 710-11.

53. *See id.* at 711.

54. *See id.* at 712.

55. *See id.*

56. *See id.* at 713.

57. *See id*; *see also* Thomas D. Morgan, *Economic Reality Facing 21st Century Lawyers*, 69 WASH. L. REV. 625 (1994) (describing the demands on attorneys as economic internationalization increases).

58. ALVIN TOFFLER, POWERSHIFT 25 (1990).

with a supranational appeals process.[59] In GATT the World Trade Organization (WTO) is given power to interpret the treaty and member states and obligated to assure conformity with the agreement.[60]

And, even if the lawyer wishes to use domestic courts for resolution of disputes, the question of when (and which) courts to use will be crucial. For example, the federal courts in the United States are given jurisdiction to hear disputes involving foreign governments involved in commercial activities in the United States as an exception to the immunity otherwise extended by the Foreign Sovereign Immunities Act.[61] The problem, of course, is determining what is meant by "commercial activities."

If the supranational bodies or U. S. courts are not the appropriate forum for resolution, then look to domestic courts of other countries. If so, the lawyer must become familiar with the civil law tradition and the fact that our adversarial system is not the norm in most of the world. In fact, even in some of the treaties we have ratified, the traditions of the civil law are strongly reflected. For example, the UN Convention on Contracts for the International Sales of Goods (CISG) adopts remedies more akin to those found in civil law countries than in the United States. Specific performance is valued more highly than damages as the appropriate remedy for fundamental breach. Procedures adopted from German law are included to provide a means of encouraging performance.[62]

And, even in countries of shared legal heritage procedures vary considerably. For example, in Great Britain the use of juries in civil cases has all but disappeared. In fact, Lord Hailsham, a prominent British commentator, referred to the United States as that "great museum of discarded English legal forms" when discussing the use of juries in civil cases.[63]

And, even if local procedure would seem important, in Europe, at least, one cannot ignore the role of regional courts and in particular the European Court of Justice, which bears the responsibility of interpreting European law under the European Union. Should an unresolved question of European law arise in a national

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59. *See* Baker *supra* note. 47, at 746-47.

60. *See id.* at 745-46; *see also* David M. Trubek et al., *Global Restructuring and the Law: Studies of the Internationalization of Legal Fields and the Creation of Transnational Arenas*, 44 CASE W. L. REV. 407 (1994).

61. Foreign Sovereign Immunities Act, 28 U.S.C. § 1330 (1976), 28 U.S.C. §§ 1332, 1391(f) (1948), 1602-1611 (1976); *see* Foreign Sovereign Immunities Act, 28 U.S.C. § 1605 (1976)(citing exceptions for commercial activity).

62. *See* UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS, Articles 46-48, 61-64 (1994). Under Article 47 when there is late delivery by the seller the buyer may fix an additional time of reasonable length for performance by the seller. If the seller fails to deliver within that period, the buyer can avoid the contract without showing a fundamental breach. This is called Nachfrist notice from German legal doctrine. A similar procedure is available for sellers in Article 63.

63. LORD HAILSHAM, HAMLYN REVISITED: THE BRITISH LEGAL SYSTEM TODAY 37 (1983) (quoted in MARY ANN GLENDON ET AL., COMPARATIVE LEGAL TRADITIONS 475 (1985).

court, say in France, that proceeding may be suspended and referral made to the ECJ.[64] (If the proceeding is in the member state's court of last resort, it *must* request a ruling of the ECJ.[65]) Once the correct interpretation is found, the national court may then apply the finding to the case at hand.[66]

IV. WHAT WILL 21ST CENTURY LAWYERS NEED TO KNOW?

Professor Thomas Morgan, former president of the Association of American Law Schools, has captured the essence of all that has been said about the skills and knowledge needed by the future lawyer.

> The most fundamental skill of a twenty-first century lawyer is likely to be understanding a client's business or family problem. Skills of lawyering will more and more become skills of problem-solving and will call upon what we now describe as interdisciplinary training. No lawyer will be as good as the client at doing the client's business, and no lawyer will be able to solve the problems of a client's aged parent or delinquent child. The more lawyers know about science, technology, economics, psychology, management, and other matters affecting their clients' interests, however, the more value lawyers will be able to add to their clients' activities.
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> In the same vein, twenty-first century lawyers will need to know the international implications of all that they do. That will be true of lawyers in mid-western states as well as those on both coasts. It will be as true in the fields of family law and trusts and estates as it is in commercial law. The law of Germany will be as important to a lawyer in the state of Washington as is the law of Oregon. The fact is that learning a foreign language may be more important for a twenty-first century lawyer than taking a trial advocacy course.
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> Finally, developing an understanding of the pluralism within this country, as well as around the world, will be even more fundamental in the future than it is today. Very little legal advice to a domestic or international business client will even be competent if it ignores the impact of a decision on the sensibilities of persons of different nationalities, races, ages, religions, genders, and sexual orientations. Lawyers serving individual clients will likewise be required to counsel a diverse group of clients for their practices to grow and develop.[67]

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64. Joseph H. Weiler, *The Transformation of Europe*, 100 YALE L.J. 2403 (1991) (discussing Articles 169-172 of the Treaty of Rome (1958), as amended by the Single European Act (1987)).

65. *See id.* at 2420.

66. *See id.*

67. Morgan, *supra* note 57. at 634-35.

It is appropriate to note that Professor Morgan's initial focus is on problem-solving. This skill also is listed as first among ten generic skills as fundamental to competent performance by lawyers identified by the Task Force on Law Schools and the Profession in a report completed for the Section of Legal Education and admission to the Bar of the American Bar Association (the "MacCrate Report).[68] The other skills listed were legal analysis and reasoning, legal research, factual investigation, oral and written communication, counseling, negotiation, understanding the procedures of litigation and dispute resolution, organizing and managing legal work, and recognizing and resolving ethical dilemmas.[69]

These fundamental skills, and especially problem solving, serve as a widely accepted generic description of what lawyers do.[70] For example, Dean Steven C. Bahls lists problem solving among specific competencies required by the general practice attorney.[71]

However, as critics of the MacCrate Report suggest, there is much more to what lawyers do than the "instrumental solving of client problems."[72]

> Lawyering also entails moral reason and ethical sense, just as law reflects and constitutes the normative order of those who make and interpret it. But recognizing the latter is no excuse for giving short shrift to the former. The world is full of highly moral but instrumentally incompetent lawyers. Whether they do more harm than less moral but more able lawyers is an empirical question.[73]

One explicit criticism of the MacCrate Report is that it paints a particular picture of the lawyer "principally as a litigator" and a particular view of the legal system "as an adversarial one in which the best of all worlds is achieved if everyone and everyone's lawyer looks out for themselves."[74] Professor Carrie Menkel-

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[68]. Robert MacCrate, *Keynote Address ––The 21st Century Lawyer: Is there a Gap to be Narrowed*? 69 WASH. L. REV. 517, 522 (1994) (summarizing the *Report of the Task Force on Law Schools and the Profession: Narrowing the Gap*, (1992) completed for the Section of Legal Education and Admissions to the Bar, American Bar Association).

[69]. *See id*.

[70]. Gary L. Blasi, *What Lawyers Know: Lawyering Expertise, Cognitive Science and the Functions of Theory*, 45 J. LEGAL EDUC. 313, 328 (1995).

[71]. Steven C. Bahls, *Preparing General Practice Attorneys: Context-Based Lawyer Competences*, 16 J. LEGAL PROF. 63, 69 (1991) (containing as an Appendix the *ABA Section of General Practice Report on Lawyer Competencies*).

[72]. Blasi, *supra* note 70, at 396.

[73]. *Id.*

[74]. Carrie Menkel-Meadow, *Narrowing the Gap by Narrowing the Field: What's Missing from the MacCrate Report ––Of Skills, Legal Science and Being a Human Being*, 69 WASH. L. REV. 593, 594 (1994).

Meadow suggests the twenty-first century lawyer will have to go beyond the skills of "thinking like a lawyer."[75]

> In the twenty first century lawyers will also have to solve problems, synthetically and creatively, as well as analytically; they will have to read and write and enforce statutes. Thus, they will need a variety of new and more complex skills and new ways of understanding legal problems. In learning to think creatively and solve problems, they might draw from such disciplines as engineering, architecture, and artificial intelligence. In order to understand wordcraft, lawyers might be as informed by literary criticism as case reading. We will need to offer courses in statutory construction and legislation, as well as common law subjects. We will need to balance private law courses with public law courses and we will need to study processes more inclusively (civil systems including ADR, criminal systems including plea bargaining). Most importantly, at the intellectual level, the well-educated lawyer will need to understand basic economic concepts, statistics, and enough social science to be able to analyze empirical effects of lawmaking and law-enforcing. If we are to take seriously recent pleas to make lawyers more sensitive to their public calling, then we will need to focus more on moral and political philosophy as well.[76]

Along a similar vein, Seattle attorney, Robert C. Cumbow, has suggested that legal education may need restructuring to a three and a half or even four year program with the possibility of a post-degree practice requirement.[77] He compares contemporary law school to a ladder with "its upper and lower rungs missing."[78] He describes the "anomaly" of modern legal education is that it "makes the concrete abstract" and "emphasizes the intellectual adventure of law to the exclusion of both the concrete human dimensions of law as actually practiced and the understanding and acceptance of a value system that, alone, gives meaning to such practice."[79] His call is for a curriculum that includes the "upper rung" of practical application (clinical course work) and the "lower rung" of the foundations of law (philosophical and moral foundations of law and justice) as well as attention to exposure to other countries' legal systems all complimenting the traditional substantive course work.[80]

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75. *Id.* at 616.

76. *Id*. at 616-17.

77. Robert C. Cumbow, *Educating the 21st Century Lawyer*, 32 IDAHO L. REV. 407, 413 (1996).

78. *Id.* at 411.

79. *Id*. These conclusions seem consistent with a survey of University of Washington law graduates in 1992, which suggested that law schools were successful in teaching basic skills such as legal reasoning and substantive law but not so with regard to "practice skills" and "social and moral context of law." *See* Wallace Loh, *Introduction: The MacCrate Report—Heuristic or Prescriptive?*, 69 WASH. L. REV. 505, 510 (1994).

80. *See* Cumbow, *supra* note 77, at 413-14.

It is, no doubt, obvious that all the calls for different types of skills, knowledge and values training for future lawyers must be considered in light of "fiscal retrenchment, the implications of information technology, the context of globalization, ethical preoccupations, and interdisciplinary, critical and multicultural perspectives."[81]

When we return to the three waves of Toffler, it is clear that as societies progress from the First Wave, agricultural, to the Second Wave, industrial, an increased number of lawyers become essential as a "concomitant" of a more complex economic system.[82] In fact, it can be argued that the demand for legal services is directly related to economic activity and that the activities of lawyers are generally "economically facilitating."[83] If this is true, and there is convincing evidence that it is, then as we move to a Third Wave post-industrial society, and a new type of wealth creation, one can conclude that the demand for legal services certainly will continue and, perhaps, be in excess of the growth rate of the number of lawyers entering the profession.[84]

The real question will not be whether the Third Wave economy will maintain an appropriate equilibrium between the number of lawyers and the growth in production of goods and services, but rather whether these lawyers who are practicing in the Twenty-first century will be sufficiently skilled to "anticipate the changes their clients will experience and help their clients manage that change."[85]

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81. *See id.*; Loh, *supra* note 79, at 512.

82. Frank B. Cross, *The First Thing We Do, Let's Kill All the Economists: An Empirical Evaluation of the Effect of Lawyers on the United States Economy and Political System*, 70 TEX. L. REV. 645, 652-53 (1992) (citing sociological and economic studies that indicate lawyers are found only in highly developed agricultural economies or those that are urbanized).

83. *Id*. at 661.

84. Morgan, *supra* note 57, at 630.

85. Morgan, *supra* note 57, at 633.