Law, Liability and Expert Systems

Joseph A. Cannataci
Research Centre for Law & Information Technology, Faculty of Law, University of Malta

Abstract. This paper examines some of the possible legal implications of the production, marketing and use of expert systems. The relevance of a legally useful definition of expert systems, comprising systems designed for use both by laymen and professionals, is related to the distinctions inherent in the legal doctrine underlying provision of goods and provision of services. The liability of the sellers and users of, and contributors to, expert systems are examined in terms of professional malpractice as well as product liability. A recurring theme indicates that legislators may be inclined to restrict possibilities of liability suits in order to avoid disincentives to the creation of expert systems.

Keywords: Expert system; Professional; Professional malpractice; Product liability; Intelligent knowledge based systems; Artificial intelligence and law; Computers and law

Expert and Professional

I assume that these are expert systems for lawyers and not for the public at large.

(Bryan Niblett)

... it may be neither ethical nor possible, for a variety of definitional and practical reasons, to keep "professional" systems out of the hands of laymen. Despite the opposition by professional groups that can be expected, it appears that home computerization of many "professional" services is imminent. The effects of such developments are uncertain, but entire areas of practice might be greatly changed or even eliminated.

(Marshal S. Willick)

Expert Systems for All

In all fairness to Professor Niblett, it should be pointed out that he made the above statement in order to clarify the fact that the sample questions to an expert system for lawyers that he was outlining during a lecture at the UK Society for Computers and Law AGM in 1981, were put "by a lawyer and not by the client"

Indeed, at the end of the same lecture, Niblett raised the issue of "To what extent should members of the public have direct access to these systems and can they in
practice be prevented from constructing and using them? . . . these are large and
difficult questions which cannot be answered in this lecture". 2

However much one needs to qualify the context in which Niblett made the
statement reproduced above, it remains useful in illustrating the declared attitude
most researchers in AI have towards the projected utilization of their creations.
This attitude is typically that an expert system is primarily conceived as a tool for
the “professional” and that it is not intended for use by “laymen”. Well, one
might be asking, how relevant is this issue to an examination of liability and
responsibility for expert systems? Admittedly, at first glance, the question of
access to expert systems by persons who may currently be regarded as “non-
professionals”, may appear to be more relevant to a discussion on unauthorized
practice of a profession rather than one on professional liability. It is submitted
however that this issue is crucial as a point of departure for this study, since if one
were to concede the possibility of relatively unrestricted access to expert systems,
then the discussion on the resultant legal liability and responsibility for the
consequences of use of the system would have to be broadened considerably. This
is because, if one were to conceptually restrict the use of expert systems to
“professionals” then one would have to examine the issue of liability and
responsibility in terms of the following relations:

```
PROFESSIONAL (System-user)

CLIENT

SYSTEM-SUPPLIER (Vendor and/or developer)

SYSTEM-DESIGNER (Knowledge engineer)

SYSTEM-CONTRIBUTOR (Expert whose knowledge is represented)
```

If, on the other hand, the discussion were to encompass the contemplated use
of mass-marketed and/or publicly accessible expert systems then the following
dimension would have to be added and explored:

```
CLIENT

(System-user)

SYSTEM-SUPPLIER (Vendor and/or developer)

SYSTEM-DESIGNER (Knowledge engineer)

SYSTEM-CONTRIBUTOR (Expert whose knowledge is represented)
```

It is important to make the distinction between one situation and the other
since, as will emerge more clearly at a later stage, different legal systems may
have different methods for dealing with the problems posed in questions of
liability. For example, liability in the provision of services may be different to the
liability which accompanies the provision of goods. This is especially true for tort
liability under U.S. law, wherein the two relevant offshoots of the tort of general
negligence are strict liability (i.e. liability without fault) and professional malprac-
tice. It will be seen, for example, that it is possible to envisage a situation where an
expert system is marketed as “off-the-shelf” or “canned” software which is
directly accessible to the customer, and this may affect the application of the US
law of tort, since in this case such a program would constitute a product (and as