

# State law protects defects in software applications

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When Philip Koopman, associate professor of electrical and computer engineering (ECE), began his lecture by asking that all recording devices be turned off, everyone there knew it was going to be good. The lecture was held last Thursday as part of the ECE seminar series. He started out with the key question: "What's the cheapest way to deal with software defects?" The answer: "Get a law passed saying that you don't have to fix them."

The Uniform Commercial Code, Article 2 (UCC2), which deals with the sale of goods, is law in all fifty states, and is the more gentle version of the Uniform Computer

Information Transactions Act (UCITA). The UCC2 protects purchases made by consumers, while remaining fair to the manufacturers. When you buy a piece of software, the warranty often says that it will cover all things under state law, except for a few specific items. However, Koopman said, the company cannot do that, and is actually bound to follow all rules of state

are revealed after purchase, and allowing software publishers to change the terms of the contract after purchase.

UCITA also would allow restrictions that prohibit consumers from criticizing or publicly commenting on software they purchased and allow software manufacturers to remotely shut down mission critical software (such as the software used in insurance companies) without court approval and without incurring any liability for the harm caused. According to Koopman, even negligence on part of the manufacturer is forgiven — thus leading to possible purposefully poor designs and functionality of goods.

"In my opinion, UCITA provides tremendous legal incentive to introduce software into products that we

rely upon for everyday life, and at the same time eliminates any practical penalty if that software is full of bugs," said Koopman. "Do you want your next car or television set to be as non-robust as typical desktop software? Would you trust your life to software with the same disclaimers you see on desktop software that basically say it doesn't really have to work?"

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*— Philip Koopman  
Assoc. Professor, ECE*

law. And even if the consumer signs a contract stating that he or she is not allowed to return the specific item in spite of such allowances under state law, then the contract is invalid.

The UCITA is a proposed state contract law meant to provide a standard for the licensing of software and all other forms of digital information. UCITA will affect anyone using software or any kind of digital information such as individual consumers, businesses, industries, and schools.

The UCITA, whose big proponents include AOL Time Warner and the Microsoft Corporation, is meant to be a new law on top of the UCC2, but only covering software. Its proponents argue that UCITA provides a unified, standard body of law which can be applied to software and information license transactions. Its default terms are said to give consumers stronger protection than even the UCC2. However, it also permits manufacturers to easily and completely negate those defaults and provide no protection in their warranties by saying that it disclaims the consumer rights.

Opponents argue that UCITA gives software manufacturers and information services an unfair advantage and leaves consumers hanging and almost cheated when they end up with bad software. Some of the types of "unfair advantages" the manufacturers would have are: "Click-Wrap" agreements (agreements in which the consumer agrees to certain terms before opening the package and getting a chance to see the terms), restrictions on use of the item which

The second half of the lecture discussed Koopman's involvement in the debate in Washington of whether the UCITA is valid and appropriate. As an expert on embedded systems (computers built into things like televisions and elevators), Koopman was "the engineer" and one of the Federal Trade Commission's sources for opposition of the UCITA. He argued that the UCITA would be an unnecessary and confusing addition to already existing software license agreements.

"My biggest personal concern is that UCITA will lead to defective safety critical products such as cars. If safety critical applications were absolutely excluded from UCITA coverage, then I'd probably be able to rest easy at night," said Koopman. "However, the UCITA drafting committee refused to consider that suggestion."

When asked what he thinks students at Carnegie Mellon can do to help or be involved in the battle, Koopman said, "Over the longer term, I urge students to use the special skills they learn at Carnegie Mellon to help their community and country."

"Some day you'll be able to make a difference," he said. "It might be in helping our legislative system understand a complex technical area so they get it right. But whatever your skills, when the opportunity to serve comes, seize it."

For more information, students can go to <http://www.ices.cmu.edu/koopman/ucita/>.