



To the Members of the Commerce Committee:

Submission on the Patents Bill 235-1

Along with many of my computer and information science colleagues, I strongly request that you place **software** on the list of “Other Exclusions” in clause 15 of the Patents Bill 235-1. Not doing so would be a serious misstep for New Zealand and would have long-term negative consequences for the welfare of our country. The main reasons for opposing such an inclusion are relatively straightforward, especially to those who understand computers.

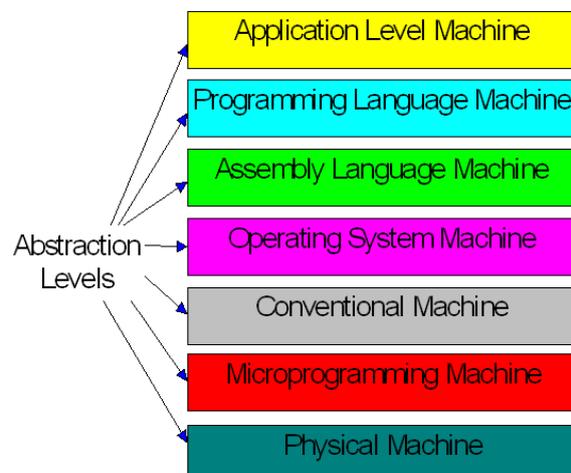
Patents, of course, are essentially restraints of trade and so run counter to the underlying principles of open capitalism. But patent proponents argue that patents compensate for this deficiency by stimulating research. In the case of software patents, this is emphatically not so. The patenting of software is ultimately harmful in three basic ways:

1. They represent a confused idea that cannot be enforced in a logical fashion.
2. They inhibit new technical developments.
3. They waste resources and contribute to the economic polarization of society.

1. Software patents represent a confused idea that cannot be enforced in a logical fashion. Patents were originally intended for inventions of new devices or of processes associated with them. The appropriate domain of patents has always been problematic, but with the advent of computers, that inherent problem became intractable. This can be explained with the aid of the diagram at the right.

General-purpose computers can emulate any kind of machine if they are given the right instructions (software). Once a given machine is emulated, further instructions can be given to operate that machine – or instructions can be provided to produce another virtual machine on top of the original one. On most computers there are several such layers of virtual “machines” running software programs. In fact it has long

been known that general-purpose computers can emulate *any form of structured (logically expressible) thought*. This means that if one allows software patents, one is



opening the door to the patenting of all thought. All the structured ideas in your mind could ultimately “belong” to someone else. Not only is the idea absurd, it is not enforceable in a judicious manner. Just imagine if all mathematical theorems were patented and limited in their availability!

2. Software patents inhibit new technical developments

The argument is made by some that patents stimulate inventions. In fact, the opposite is the case. We can be thankful that there were no software patents before about 1980, prior to which there were a great many discoveries made that are now freely available. Since then, however, there have been numerous software patents granted that impede progress in the field, including patents in such basic areas as font types, compression, and encryption. In fact even the linked-list (in wide use since the 1950s) was patented by the US Patent Office in 2006. When such patents are granted, they stifle new developments. Currently, for example, the area of Voice of Internet Protocols (VOIP) communication is so cluttered with patents that technical advances will be impeded for the next 15 years.

3. Software patents waste resources and contribute to the economic polarization of society.

When software patents are granted, considerable research effort is devoted to developing workaround solutions that strive to get around a patent blocking technical development. Large companies often take out patents in order to stifle their competitors or for use as bargaining chips in negotiations with other large software companies. In such cases, valuable resources are wasted in the effort to avoid the suffocating effect of patent control. In addition, the existence of software patents has led to a wasteful increase in litigation associated with patent enforcement (enforcement, in fact, of an idea that is fundamentally unenforceable).

This situation only contributes to an increasing economic polarization in capitalistic society. Microsoft, for example, has 10,000 U.S. patents, more than 17,000 U.S. patents pending, and more than 30,000 issued and pending international patents. Such patent collections are beyond the reach of ordinary companies and contribute to the kind of industrial concentration that disadvantages New Zealand organizations and users.

New Zealand, which has a government committed to the principles of free trade, can take a leading role in preventing further depredations associated with software patents. Just as it did when it gave women the right to vote, New Zealand can adopt a position that is logically sensible and inherently just. By eliminating software patents, it can become a beacon to innovative software developers and help support and secure its own creative software sector. I again urge you to place **software** on the list of “Other Exclusions” in clause 15 of the Patents Bill 235-1.

Yours sincerely,

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