Blocking the millionaire computer-software pirates

Software pirates are cashing in on the microcomputer boom. For every computer programme or video game that is sold, as many as eight illegal copies are made. When these programmes, recorded on floppy discs, cost several hundred dollars each, that can sting software companies. Adapso, the American data-processing industry association, is desperate to find a solution to microcompuer software piracy, which it considers the most serious problem facing the industry. And there are pirates galore in other microconscious countries, too.

Adapso is looking at both the law and at technical ways of beating the pirates. Since much of the piracy is done at home or in the office for friends it is difficult and expensive to try to enforce software copyright legally. As other have learned: eg, record companies with priates of audio cassettes and video. Similarly, any technical solution must not only work; it must also be cheap enough to be implemented by software companies—and be easy to use on lots of different machines.

So far, most of the technical tricks developed to foil pirates have failed. Cunning devices known as bit-and-nibble made copiers have made it possible to copy software on almost any floppy disc. These devices simply red the programme on one disc, literally computer bit by computer bit, and then transfer it to another floppy.

Now, a small Californian company, Vault Corporation, reckons it has a cheap, ingenious way to keelhaul the pirates: a "finger-printed" floppy disc. How does it work? Quite simply, each floppy disc—the medium on which programmes are recorded by software makers—has a finger-print in the form of a physical imprint on the disc. Vault is, understandably, coy about how the print is made; but it is, in effect, a code in the surface material of the disc.

When the floppy disc is inserted in a disc drive, the programme seachers for the finger-print. If it has read its fingerprint, then the programme can be run on the microcomputer. If not, nothing happens. The finger-print acts as a key, "unlocking" the programme. Vault calls it the Prolok system.

The potential advantage of Prolok over other types of software protection is that the Prolok system is actually a mixture of hardware and software protection. It is immune to the fiendish bit copiers. It matters not a jot that copies can be made of the programme's applications instructions; the instructions will not be followed without the finger-print key.

In fact, the ability to take copies is very important to any user who wants a spare copy of an expensive programme in case the original programme is damaged by a badly behaved microcomputer. When he or she first acquires it, the user can copy the programme on the Prolok disc on the another, ordinary floppy disc and keep it on file in case of need. If and when it is needed, the user simply inserts the original finger-printed disc with the back-up copy of the programme. So long as the original Prolok disc can rotate in the disc drive at all, the chances are that its finger-

print can still be read, and so will be able to signal the computer to go ahead and execute the programme instructions on the copy disc. Vault reckons that they key will work unless the disc has been very badly damaged indeed: unless, for instance, the dog eats it.

Can the Prolok system be cracked by a really determined pirate? The answer is yes. But each disc carries a very different finger-print, and Vault reckons it would take a long time to crack even a few finger-prints. Also, because the finger-prints are physically im-

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Career line

By NATALIE BULL

Deciding upon a particular career goal and then the necessary steps to get there can be one of the most daunting tasks we ever tackle. For many people there seems to be implicit in the idea of making a career choice the notion of "sudden death overtime," where sucess (and failures) are absolute and irrevocable. Little wonder, then, that the choice is often made wholly on the advice or urging of parents, friends or high school guidence counsellors, using as criteria such concerns as practicality and job market demand.

Of course, it is no sin to heed the advice of people who want to see you established in a lucrative career. But practically -seeing a job as merely the means to financial security -should not override the importance of finding a career that is personally satisfying and meaningful.

Matching individual abilities, interests and values with a suitable and feasible career is an approach to career decisions that covers all angles. It also happens to be the basic approach to career counselling found at counselling services in the UNB Alumni Memorial Building on Campus, as I learned during my exposure to the counselling process over several weeks last term. My counsellor promised no pat answers, but rather, she offered the techniques and tools to figure out for myself what kind of career I want, and guidance through the process of sorting out options and possibilities.

A major figure in modern career counselling is Richard N. Bolles, author of *What Colour is Your Parachute?* a manual on life/work planning which features *The Quick Job Hunting Map*. The latter, a small and inexpensive booklet available at the campus bookstore, was used in my counselling sessions and can be very useful to anyone thinking about his or her work future. I enjoyed the additional benefit of insights, feedback, and motivation provided by my counsellor - an even greater asset in group situations like Career Workshop (offered each term) where the combined resources and brain-power of a number of people are on tap. Either way, confidentiality is strictly maintained.

The first task in which my counsellor directed me was recognizing the skills I have. As Bolles points out, the average person has between 500 and 700 skills but is unaware of most of them. One way to bring them to the surface is to complete a Life Review exercise, writing down in chronological order all the experiences, activities, hobbies and jobs that you enjoyed or felt competent at, from your earliest memories to the present. When I was told to write about several particular incidents from my past in detail, and pick out all the skills involved in each, I had my doubts; afterall, how could organizing a pit party in the tenth grade have any bearing on my career prospects? But after charting the incidents on Boller's Functional/Transferable Skills Inventory, I found that many of them involved recurring skills concentrated in certain areas: Detail/Follow-through skills; planning/organizing/management; Innovation and Artistic abilityes, for example. With the encouragement and direction of my counsellor, I was able to augment this data with relation to exercises, then recognize patterns and priorize my skills and abilities to decide which ones I most enjoy using.

Discovering the skills and competences you have and would like to incorperate into a career is an important first step in the career counselling process. A career, after all, is really a flexible combination of skills that can be arranged and rearranged to suit the individual.

Next time: Distilling a large body of skills, interests, and enthusiasms down to a core of essentials in order to choose a field that meets your needs.

Counselling Services
UNB Alumni Memorial Building 453-4820

Are you of sound mind?

FRANK, WHAT ARE YOU DOING NOW?

I'M TRYING TO CATCH AN AIRPLANE.

© 1983 Phil Yeh

Can you deal effectively with other people?

TELL HIM THAT, PUDDING FACE

MMM! MMM! MMM!

Are you able to work in a community atmosphere?

GOODBYE OLD FRIEND!

PEPSI COLA HITS THE SPOT.. TWELVE FULL OUNCES...ETC.

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