We believed that innovation takes place in an "ecosystem" comprising an environment interacting with individuals. If the environment is too restrictive or individuals lack certain skills, attempts at innovation will fail. Our search of the literature yielded many conclusions about the environment, but very little about individual skills beyond "innovators must be risk-tolerant and lucky." There seemed to be a consensus that innovation is driven by processes beyond human control and that innovation failures greatly outnumber successes—in other words, that skill makes little difference.

The evidence contradicts that conclusion. Masterful, repeat innovators are too numerous to ignore. The innovator's skill is much more important than is generally believed. If we could identify the elements of the skill, our students and clients could learn them through practice. They then would see more of their ideas adopted. Their organizations would see improvements in their success rates.

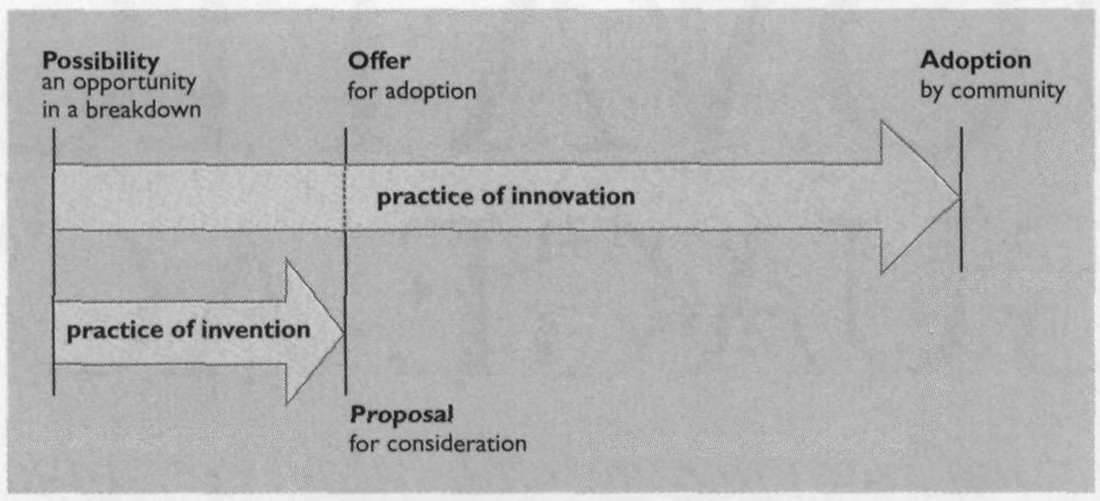

Figure 1. Invention and innovation.

We set out to discover what the innovator's skill is and how to teach it to our clients and students. We found that the key is to understand innovation as adoption of new practice. It is distinct from invention. Language-action, which shows how action is initiated and shaped by conversations, eventually led us to the interaction patterns at the core of the innovator's skill and the practices needed to master them. We have been teaching these personal skills successfully to our clients and students for over 15 years. The "culture of innovation" so ardently sought by organizational leaders arises from the collective behavior of individuals who are competent in these practices.

You can learn these skills. With practice you can become a competent innovator. Your leverage is high: improving your success rate to 5% puts you 25% ahead of your competition. Even if you are not willing to engage with the practices, an awareness of what they are will already help you and your organization improve your prospects of innovating.

Invention is Not Enough

The first challenge is to settle on a clear definition of innovation. Dictionary definitions are not much help: they vary from clever inventions to mass adoption of products. The lack of clarity is partly responsible for the inability to teach and learn innovation as a skill. The wrong definition leads to the wrong skill.

The language-action framework encouraged us to make an operational definition—one that is observable and executable. How do we know for sure when an innovation has happened? It is simple: we observe that *a group or community has adopted a new practice.* Peter Drucker linked innovation to adoption of new practices in the 1950s and Everett Rogers in the 1960s [3, 8]. Harold Evans stresses it in all his stories about innovators [4]. With this definition, adoption becomes executable when we find the actions that produce it.

The word "practice" is very important. It refers to habits, routines, and other forms of embodied recurrent actions taken without consciousthought. Spreading ideas is not enough to get people to change their habits. Innovators induce changes of habit by offering and supporting new tools or processes perceived as high value by adopters.

Invention is different from innovation. Invention means to create something new, but does not require that anyone accept or adopt it. The stories of innovators demonstrate that the inventor and the innovator are often not the same person. Gary Kildall built the first personal computer operating system, CP/M, in the late 1970s. Bill Gates took an imitation, DOS, into the standard operating system for the IBM PC and later for 90% of all PCs. Kildall was the inventor, Gates the innovator. Harold Evans tells the stories of numerous unheralded innovators who turned famous inventions into standard infrastructures; for example, Samuel Insull took Edison's inventions into modern electric power generation and distribution [4].

The Patent Office offers compelling evidence of a fundamental difference between invention and innovation. Peter Drucker says that no more than one in 100 patents earns enough to pay back its development costs and patent fees, and no more than one in 500 recovers all its expenses.

Many people suffer great expense and frustration because they think clever ideas are innovations. They live in the vain hope that their invention will be recognized and adopted. The literature reinforces this mistaken belief by singling out as examplars rare successes, such as the zipper, the ballpoint pen, the paper clip, or the aerosol spray can, and ignoring the many failures. Many research labs churn out large numbers of bright ideas in order to find the few that will pay