



WHY?

Breakthrough technology should be easily recognized and integrated into our society but for a variety of reasons it's not. The purpose of this publication is to explore some of the more obvious impediments to new ideas.

Generally speaking, backing new and untested ideas takes courage and vision. Unfortunately these commodities have always been in short supply.

Studies have shown that people are more highly motivated by loss than by gain. This results in extreme risk aversion by both individuals and organizations, particularly when the stakes are high.

But avoidance of risk carries its own **perils**. Technological advance is not inevitable. There have been times in human history where progress has ceased, indeed, reversed.

It is nothing short of a miracle that technical progress occurs at all.

Human foibles also play a role. Indeed, the follies of human nature are part and parcel of the innovation process.

Progress can be impeded by resistance to inventions because new ideas require time and investment to become practical. So early technical development is very easily sabotaged by **pathological skepticism**. When this happens, a new idea is rarely given a second chance.

Those charged with seeking out new ideas and methodologies are too often **hidebound** by tradition.

Many more are hopelessly mired in organizational red tape or are so overly skeptical that they are blind to new possibilities, even when these are placed right in front of them.

A very few even seek to hold back progress for their own twisted reasons.

Technical evolution is also uneven. In some societies new things are viewed with hostility and innovators are actively punished. In others, change is **warily accepted** and agents of change are severely hampered by attitudes and institutions.

The pace of change in more recent times has increased from that in earlier centuries because of **structural changes** in modern human society.

But even in the 21st Century there are many obstacles to innovation preventing deployment of new technology.

While there are many factors at work, three major issues else slow progress immensely.

The first of these problems is an absence of **developmental funding**. The second factor is a **failure to recognize innovation** when it does appear. And the third is the sheer difficulty of making progress known to more than a handful of people during the early stages.

Fortunately the latter issue is less of a problem now. With the advent of the Internet, it is easier to present early stage improvements directly to the mainstream populace.

Enormous progress has been made in all other areas of intellectual property management but identification of early stage breakthrough technology and investment in innovation is still in the **Stone Age**.

Extremely practical and useful technology routinely languishes or is lost forever, especially when it is far ahead of mainstream knowledge.

New technology has the potential to cause fundamental changes in the human condition and the technological balance of power.

An innovator trades in new ideas. As in any other industry, producing new products requires time and money. Revenue must be generated if the effort is to continue.

Capitalizing innovation requires prudent disclosure. But unrestricted publication is foolhardy. It is often difficult to strike the right balance - to gain enough recognition to open doors while maintaining enough control over information to prevent outright piracy.

On The Frontier shows what is possible and offers a glimpse of the possibilities.

By making a larger audience aware of the possibilities, the day may be hastened when breakthrough technologies are fully developed and applied.

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