

Generativity

Supporting innovation

Supporting Innovation

- An II is constantly evolving, and without further innovation, any II will die.
- Generativity is a key concept to comprehend IIs and their evolution
- How can an II support Innovation?
- If so, how can the mechanisms be described?

Innovation

Invention vs Innovation

- Invention is to come up with something completely new
- Innovation is to combine existing artifacts in a new way

Definition of Generativity

Generativity is a system's capacity to produce unanticipated change through unfiltered contributions from broad and varied audiences.

- **Unanticipated change**
- **Unfiltered contributions**
- **Broad and varied audiences**

Capacity for Leverage

A generative technology makes difficult jobs easier.

The more effort a device or technology saves - compare a sharp knife to a dull one - the more generative it is.

The greater the variety of accomplishments it enables - compare a sharp Swiss Army knife to a sharp regular knife - the more generative it is."

Adaptability

Adaptability refers to how easily the system can be built on or modified to broaden its range of uses.

A technology that affords hundreds of different, additional kinds of uses beyond its essential application is more adaptable and, all else being equal, more generative than a technology that offers fewer kinds of uses. The emphasis here is on uses not anticipated at the time the technology was developed.

Ease of mastery

A technology's ease of mastery reflects how easy it is for broad audiences to understand how to adopt and adapt it.

Ease of mastery also refers to the ease with which various types of people might deploy and adapt a given technology, even if their skills fall short of full mastery.

Accessibility

The easier it is to obtain access to a technology, along with the tools and information necessary to achieve mastery of it, the more generative it is.

Barriers to accessibility can include the sheer expense of producing (and therefore consuming) the technology, taxes, regulations associated with its adoption or use, and the secrecy its producers adopt to maintain scarcity or control.

Transferability

Transferability indicates how easily changes in the technology can be conveyed to others.

With fully transferable technology, the fruits of skilled users' adaptations can be easily conveyed to less-skilled others.

Reinforcing

The five qualities of leverage, adaptability, ease of mastery, accessibility, and transferability often **reinforce one another**.

And the **absence of one** of these factors may prevent a technology from being generative.

Is this generative?

- Paper
- Internet
- Fixed phone lines
- Facebook

Teamwork

Discuss generativity related to your projects

Teamwork status

- Interviews
- Scope
- Referencing