



Help Your System Function

Here are some possible actions to take to help the system function at its best.

- 1. Aim for the success of the whole system**

Aim for the success of the whole system, not just a piece of it

Look for win-win solutions

Look for where the ethical and the practical intersect

Aim for consistent coherence across the system

- 2. Help the system self-organize**

Help the system self-organize

Increase the diversity and strength of connections

Maintain dialogue and collaborative relationships within the system

Do small, iterative, “safe-fail” experiments

- 3. Adjust the system**

Adjust flows

Adjust and create feedback processes

Make sure the system is geared more heavily toward resilience than efficiency

- 4. Adjust the Quality of Participation**

Pay attention to aesthetics

Participate with intuition as well as intellect

Keep listening

Aim for the success of the whole system

Create your vision for the whole. Look for solutions that help the whole system, not just a part of it. Don't narrow your focus to just one issue, see the whole pattern, and, as Wendell Berry says, “solve for pattern.”

Look for win-win solutions

Look for solutions that happen to solve several other issues as well. This is one way to know if you are finding solutions that support the whole system.

Look for where the ethical and the practical intersect

Find solutions that are both ethical and practical. One clue to finding these solutions is to value the long term as well as the short term. For example, looked at from a systems view, there is

By Dylan Skybrook, MSc.

©2012 Regents of the University of Minnesota. All rights reserved.

nothing practical about fishing a species into extinction. Many things depend on biodiversity, including our economy. But keeping a species from extinction is the ethical thing to do as well.

Aim for consistent coherence across the system

Make sure nothing in your system of interest is damaging anything it depends on for survival. This means that owners of businesses make sure that employees are doing well and that economic activity includes protection for the natural resources it depends on.

Help the system self-organize

Doctors don't heal bones; they set bones so that they can heal themselves. Similarly, your job is not to control the system but to help it self-organize. One of example of how to do this is to provide education for those in the system. Education is powerful nutrition for a social system and allows it to knit itself back together. It helps a system self-organize toward greater function.

Increase the diversity and strength of connections

Systems function via their connections; it's how systems hang together. Make sure the connections in your system of interest are operating and that there are many different kinds of connections. This way, functionality isn't dependent on just one kind of connection. For instance, providing education to girls globally greatly increases connectivity, as a huge percentage of the population is connected to information that was previously withheld from them.

Maintain dialogue and collaborative relationships within the system

It's a good idea to increase dialogue and collaboration and allow the information sharing, interaction, and different points of view to do their work on your system of interest. Dialogue allows connections in a system to function.

Do small, iterative, "safe-fail" experiments

One way to work with systems is to do small "safe-fail" experiments, which won't hurt the system if they don't work, but can bring the system toward greater function if they do. Sometimes, these kinds of experiments are called "catalytic probes."

Adjust flows

Sometimes you can control the "spigot" of flows into and out of your system of interest. For example, a government can regulate fish catch to decrease the flow of fish out of a fish stock. You can adjust the thermostat to increase or decrease the flow of heat into a room.

Sometimes you can use the desire to adjust a flow to look at something deeper. For example, you can't stop employees from quitting, but you can look into what conditions might be inspiring them to go.

Sometimes you don't have much control over the spigot because the flow is an emergent property of the system's self-organization, as in the case of high school drop-outs.

Adjust and create feedback processes

By Dylan Skybrook, MSc.

©2012 Regents of the University of Minnesota. All rights reserved.

Create feedback processes for feedback systems. For example, during Jimmy Carter's presidency, he suggested a tax on oil consumption proportional to the amount of oil imported. If imports rose, the tax would rise. If the tax became high enough such that either demand was suppressed or alternatives to imported oil were developed, the tax would fall. This is a great example of creating a feedback process. Unsurprisingly, the tax was not passed.

Make sure the system is geared more heavily toward resilience than efficiency

Ecologists have found that natural systems in their optimal condition are about twice as resilient as they are efficient. This equation is true in any complex flow system. Build in some cushion to your system, make sure there is more time, money, space, redundancy, or diversity than you think you might need.

Adjust the quality of participation: pay attention to aesthetics

Keeping in mind that people respond to more than facts and numbers, what, in your system of interest, would self-organize in a different way if aesthetics were given attention? What if a school or a workplace or a product was beautiful? How would that change the system?

Participate with intuition as well as intellect

When you see enough connections, such that you see a unified field instead of separate things, your participation begins to come from the field. To understand your system more fully, take the time to allow your attention to shift into this more intuitive state. Try deliberately slowing down and observing the system while momentarily suspending focus on any specific goal, allowing your focus to widen and take in connectedness you might not have seen before.

Keep listening

Working with complex systems is about initiating an ongoing process rather than achieving a static outcome. Emphasizing the practice of listening can help us participate in an ongoing process and avoid the model of developing a strategic plan, doing it to a system from a position presumed to be outside it, and then forgetting about it. This helps us avoid unintended consequences.