Systems Practice | The Omidyar Group 1

# READING 1: Why We Need Systems Practice

“Whether you call them wicked, complex, intractable, or just plain broken, our society is facing many tough issues. We can't sit back and hope for the best. It's up to us to work through the complexity and create thoughtful, sustainable solutions...But simplicity doesn’t come easy. To get there, we first must embrace the complex world we live in.”

- Jeff Mohr, CEO of Kumo.io

“Solving today’s pressing problems requires impacting the bigger picture--the systems we live and work in. To change systems, we need to first understand the web of interrelations that create complex problems. We need to embrace systems thinking.”

- Grantmakers for Effective Organizations

# WHY WE NEED SYSTEMS PRACTICE

## A cautionary tale from Kiribati

Let’s transport you for a minute to the island of Kiribati, in the middle of the Pacific. For generations, the people on Kiribati survived by harvesting coconuts and fishing in the coastal waters. However, in 2004, government officials and aid workers began to realize that the tropical reefs off the island were become severely overfished. If fishing continued at the same rate, one of the island’s main sources of food and livelihoods would be threatened, and the reefs would continue to be drained of their rich biodiversity.

In an effort to stave off this overfishing, an aid agency teamed up with the local government and designed a seemingly creative and logical program. They hypothesized that if they used international aid dollars to subsidize coconut farming then local people would be incentivized to farm coconuts instead of fish and this would preserve the fish population and increase the incomes of the islanders leading them to have more stable and prosperous lives. It seemed like a win-win situation! More income for local people and less fishing!

Yet, within a few years, those idealistic visions had crumbled. More islanders had indeed taken up coconut farming and were enjoying higher wages. However to the great shock of the aid workers, fishing increased by 33% and the fish population had declined by 17%. It turned out that when people could make more money from coconut farming, they also had more leisure time. And because they found fishing an enjoyable pastime, they spent more time casting their nets. They even bought more sophisticated fishing equipment with their newfound prosperity, increasing their daily catches and depleting the local ecosystem. Inadvertently, the aid agency and the government had actually deepened the crisis instead of resolving it.

# LINEARITY TO COMPLEXITY

## Rethinking our theories of change

Many of us, intuitively or by design, operate like the aid workers on the island of Kiribati. We map out linear theories of change that assume that if we invest a certain amount of inputs–whether those are philanthropic dollars, beds in a homeless shelter, or hours of training—we will trigger a certain number of positive outputs and outcomes. Over time, these will flow together and accumulate to become positive social impact.

But does change really happen like that? To answer that question, it first helps to figure out whether the problems you are trying to solve belong to the “clock world” or the “cloud world.”

### WHY DO FIXES FAIL?

Think for a moment about your own experience trying to create social change. Maybe you are a non-profit employee eager to implement programs that foster democracy or a philanthropist who wants to leverage your dollars to reduce homelessness. Perhaps you are a government employee trying to craft policies that leave more people with clean air. Or you’re an aspiring social entrepreneur trying to figure out the best way to bring energy to the poor.

* Have you ever implemented something that didn’t work out quite as planned?
* What happened?

# CLOCK AND CLOUD PROBLEMS

## Mechanical or unpredictable?

In 1966, Karl Popper, a philosopher of science, observed that some problems worked like clocks. They were mechanical, finite, predictable and controllable. On the other hand, some problems worked like clouds. They were infinite, ever-changing, unpredictable, and hard to control. Some people also call these problems ‘adaptive challenges’ or ‘wicked problems.’

If you are dealing with a “clock” problem, you can clearly identify a broken part. You also know that there will be best practices to fix what is broken. For example, if you hire a new employee who doesn’t know how to use Excel to create a spreadsheet, that is a very obvious “clock” problem. You can simply give him a series of tutorials and the problem will be solved. Though they may require hard work and thinking to figure out, clock problems are ones where there are known best practices and checklists that can help anyone make sense of them.

There are also slightly more complicated “clock” problems that require input from an expert in order to solve them. These problems have a right answer, but it might not be self-evident.

TIP: Clock problems are not necessarily easy problems! They can be difficult and still require hard thinking!

### CLOCK OR CLOUD?

Think for a minute about the following problems. Which would you characterize as clock problems and which would you classify as cloud problems? Why?

* Homelessness
* Polio
* Inability to use Excel to create spreadsheets
* High rates of incarceration in the United States
* Houses that have collapsed in an earthquake
* The refugee crisis

# DIAGNOSE THE DIFFICULTY

## Clock Problems

Looking at our list on the previous page, “polio” and the “destruction of houses after an earthquake” would be the two examples of complicated clock problems. They both have known solutions, but they require technical expertise or logistical power to solve.

Treating polio requires administering a vaccine. This takes skill and training to deliver, but, once administered, is a proven solution.

Similarly, when a natural disaster destroys houses, the result might be tragic, chaotic and costly, but there is a relatively straightforward solution: build new homes that are better designed and moved away from vulnerable areas.

These are situations where you can find a “broken part” and fix or upgrade it. You can swap out one element and replace it with a better one without fundamentally altering or disrupting the relationship between other parts in the system.

This is because clock problems are also characterized by a low degree of connection between the problem and its context. You can work on the problem separate from its environment. For example, you could administer a polio vaccine to a child in Ghana and a child in Ohio and expect that it would be equally effective in targeting the disease.

## Cloud Problems

However, think about if you were trying to solve a problem like an ethnic conflict between local tribes. You couldn’t pre- fabricate a peace deal somewhere else and then expect it would work like a “plug and play” solution on the ground. That’s because an ethnic conflict or a refugee crisis or a problem like mass incarceration or homelessness belong to the cloud world.

When we’re dealing with complex social challenges there aren’t simple, mechanical fixes. Consider a community facing a ballooning homeless population. The local shelter might rush to add new beds so that people don’t have to sleep on the streets. This is commendable. Yet adding more beds won’t address the underlying causes of homelessness in the United States, which include things like domestic violence, mental illness, or high costs of living. They could keep adding more beds, but until they figure out longer term approaches to help families afford their rent or access better mental health services, they’re not really going to solve the problem. Homelessness is a problem highly connected to its context. Unlike a polio vaccine that we can manufacture elsewhere and then administer anywhere in the world, homelessness requires engagement with a network of tightly connected forces.

# FIXES THAT FAIL

## Three ways that solutions get stuck

If we’re working on cloud problems and we neglect to consider the systems in which they are embedded, we often end up with “fixes that fail.” These failures generally take three forms, which you saw depicted in the ‘Why use a Systems Practice?’ video.

## 1. Groundhog day

**You see the same problems over and over again.** If you’re a parent, you might be accustomed to this scenario. Perhaps every night you clean up the toys off your child’s floor, and then every night when you come home, you find them spilled all over the floor again. You’re stuck in a vicious feedback loop, where you spend every night on your hands and knees cleaning up a mess. A similar (although much more tragic) situation can play out in failed states. For example, in the Arab Spring you saw leaders deposed, but because the underlying democratic structures were not fundamentally altered or strengthened, we saw cycles of coups, discontent and violence continue. The mess continued to appear. Similar problems surface again and again.

## 2. Whac-a-mole

**Sometimes you tackle one part of an issue, only to find that it makes another part worse.** For example, many development organizations--seeking to empower women and move families out of poverty--have used microfinance models to put small amounts of capital in women’s hands. This allows women to start small businesses and grow their household income. At first glance this trend seems unambiguously positive. Yet, if you look closer at how some microfinance programs have played out in Bangladesh, you see a troubling pattern of increased incidences of domestic violence among women who receive loans. Although microfinance loans might solve their cash flow problems, suddenly they have to grapple with other issues like traditional gender roles, corruption, and intimidation that pop up. Of course, many microfinance programs are highly effective, but the people implementing them should be mindful of the larger systems and contexts in which they are being deployed. This is an example of a ‘whac-a-mole’ problem: seeking to contribute to women’s empowerment, programs can inadvertently contribute to higher rates of domestic violence instead.

# FIXES THAT FAIL

## Good ideas, gone awry

## 3. Opposite Day

**Well-intended actions make things worse.** In some cases fixes designed to help can exacerbate situations, like we saw on the island of Kiribati. Another example is food aid programs in Ethiopia. If foreign governments donate food staples to war-torn or impoverished countries for many years, this aid can actually undermine local economies, leading to lower rates of agricultural productivity, depressed commodity prices, and diminished job opportunities for local people. In 1999, the price of wheat in Ethiopia fell to only $193 per metric ton. Experts believed it could have been worth as much as $295 if foreign governments hadn’t been shipping in wheat and depressing market rates. Trying to fight hunger ultimately backfired.

**The big take-away here?** Although governments, organizations and individuals often have the best of intentions, if they’re dealing with cloud problems, it’s essential that they examine solutions through a wider lens, take a longer-term view of the consequences, and resist linear solutions. If you are trying to solve problems in the cloud world, you have to figure out everything that goes on in the cloud. This necessitates that you use a systems practice, which we’ll walk you through in this course!

# OUR VIEW OF SYSTEMS PRACTICE

## Acumen’s Perspective

Acumen is an impact investing firm that raises philanthropic capital and invests it in businesses providing critical goods and services to the poor. The entrepreneurs we invest in are tackling a host of “cloud” problems ranging from maternal mortality to unemployment to deforestation to hunger. Early in our history, we realized that we would never be able to tackle poverty by focusing exclusively on better products alone. We learned that although companies could produce the most amazing water filtration devices or solar lanterns, these would end up yielding limited social impact and financial returns if entrepreneurs failed to account for how these innovations would get to market and actually reach the end customers whose lives they were meant to benefit.

We saw how companies working to serve low- income customers had to address a host of complex challenges in order to succeed. We heard from entrepreneurs who literally had to build roads to reach their customers or find ways to successfully bring their products to market without paying bribes. As investors, we realized that if our entrepreneurs were doing this hard work of tackling “cloud” problems, we needed to create a more patient form of capital that offered them the necessary runway to generate customer demand, build supply chains, and scale to new markets.

We also realized that financial capital alone would not be sufficient to make these ventures succeed: we needed to invest in leadership and help these enterprises find the human capital to effectively scale.

Over time, we have continued to widen our lens, so that we are beginning to see and understand the many complexities of the markets in which we work. Tackling complex problems of poverty will take all of us—not just entrepreneurs but governments, non- profits, and the corporate sector all working together. The work of tackling poverty requires not only the capacity to build a significant institution that delivers value to end customers – it requires the ability to see the larger systems in which poverty exists, and to be able to bring together the myriad actors who are part of that system so that together they can all make positive change.

“It will take all of us to make things right for those who have too long been excluded from opportunity. In our inter- connected world, developing an understanding of our shared humanity has become a critical skill, one upon which our shared future ultimately depends.”

-Jacqueline Novogratz, Acumen Founder and CEO

# OUR VIEW OF SYSTEMS PRACTICE

## The Omidyar Group’s Leadership

Fifteen years into our history, Acumen has reached an inflection point where we are working more deliberately to bring a “systems change” lens to our work. There will never be infinite pools of capital to deploy, but if we can find the strategic leverage points where we should invest our resources, networks and energy, we believe we will be better positioned to contribute to shifting entire systems and hopefully slow down or disrupt the vicious cycles that keep people in poverty.

That’s why we were so excited to learn that The Omidyar Group and its diverse organizations and initiatives had taken up the challenge of finding a practical way to implement a systems approach. Their practical systems practice methodology enables them to build strategies up to the demands of the complex systems in which they work.

This effort is led by Rob Ricigliano who is currently the Systems and Complexity Coach at The Omidyar Group and previously worked for 25 years in peacebuilding, conflict management, and systems. Rob has worked with political parties in the new Iraqi Parliament and has been involved in peacebuilding interventions in the Democratic Republic of Congo, Afghanistan, Russia, Georgia, Colombia and South Africa. In short, he’s worked on untangling and making sense of some of the most complex problems in the world where much is at stake. We could think of no better person to be your guide through this course.

Throughout this learning journey, Rob will walk you through all the steps you need to adopt a systems practice to your work. These will fall into 5 phases:

* Launch;
* Gain Clarity;
* Find Leverage;
* Act Strategically; and
* Learn and Adapt

The Omidyar Group has developed and tested these processes in collaboration with internal teams from across their network who are tackling complex challenges. Throughout this course you’ll follow along with teams working on issues of education, democracy, and human rights as they build their own respective dynamic systems maps. and strategies. We’ll show you examples of how they worked through challenges and the insights that emerged at each step of the process.

At +Acumen, we’re always eager to share well-designed approaches to help our community become more active and effective at creating social change. In this course, you’ll have a chance to work alongside change-makers from around the world who are striving to put systems thinking into practice. So let’s get started!

# WHAT IS A SYSTEM?

Now that you’ve learned the basic distinction between clock and cloud problems, and grasped some of the reasons why applying a systems lens to complex issues can be so powerful, we’ll dig in and unpack key terms. These are the core concepts you’ll need to know to complete this course.

When you hear the word “system,” what do you think of? If you’re like most people, something like a “hospital system”; “school system”; or “highway system” might come to mind. Rob explains: “You might think of a system in terms of physical entities consisting of buildings, people and policies. However, when we’re dealing with complex social systems, we’re typically referring to things that are less tangible. These complex systems are made up of interconnected forces that affect each other.

According to Donella Meadows, a leading thinker in the field of systems change, all systems have 3 parts:

* **Elements:** these are the different forces that comprise the system
* **Interconnections:** these are the relationships or stories that hold all of the elements of a system together. It’s less important to exhaustively chronicle all elements in a system than to trace the interconnections between them.
* **Purpose.** This is perhaps the most tricky thing to wrap your head around. As Meadows puts it: “purposes are deduced from behavior, not from rhetoric or stated goals...Systems purposes need not be human purposes and are not necessarily those intended by any single actor within the system. In fact, one of the most frustrating aspects of systems is that the purposes of subunits may add up to an overall behavior that no one wants.”

Complex systems are characterized by non- linearity. As we talked about before, causes and effects do not necessarily flow in a predictable or one-directional way. You might think that if you give people bed nets coated in insecticide, cases of malaria will decline. But, in fact if people using those bed nets as fishing nets instead, you could end up with stagnant rates of malaria and rivers polluted with insecticide. Inputs do not necessarily flow cleanly into outcomes.

# WHAT IS A SYSTEM?

## Feedback and emergence

Systems also generate **feedback,** which means they transmit and return information. A change in one part of the system can reverberate in another part of the system. Think about the island of Kiribati. When you gave people more money to farm coconuts that inadvertently affected the number of fish in their coastal reefs! These feedback loops can sometimes recur over time causing you to see patterns or repeated behaviors. Feedback loops are when outputs of a system (like money from farming) are routed back as inputs (like better fishing equipment) triggering a cause-and-effect chain that forms a recurring pattern of behavior.

Finally, systems are characterized by **emergence.** This is a process by which, through many interactions, individual entities or “agents” create patterns that are more sophisticated than what could have been created by an individual entity. Just think of a city morning where many different agents perform roles that add up to a commute and the start of a workday. No individual could ever plan or orchestrate all of these things, but collectively they add up to an average city morning.

For now, just keep in mind that systems need to have elements, interconnections and purpose.

“Living successfully in a world of systems requires more of us than our ability to calculate. It requires our full humanity.”

-Donella Meadows, Thinking in Systems: A Primer

### WHICH OF THE FOLLOWING ARE SYSTEMS?

Based on the characteristics that you read about the previous two pages, which of the following things would you classify as “systems”? Remember that they need to have elements, interconnections and purpose.

* A football team
* A bowl of M&Ms (candy)
* A rainforest

If you said a football team and a rainforest, you’d be right. Why isn’t a bowl of M&M’s a system? The M&Ms aren’t interdependent, interconnected, or dynamic.. Both the football players and the rainforest’s elements are not just discrete components, but rather have interconnections. And they are set up to serve a purpose, like winning a game or serving as a functioning ecosystem.

They also display non-linearity, feedback loops, patterns and emergence.

# WHAT IS SYSTEMS PRACTICE?

## An approach to complexity

So, now that we’ve defined “systems”, you should know that “systems practice” is an approach to grappling with adaptive problems in complex environments with the aim of making enduring social change at scale. A systems practice helps answer three basic questions:

* How does the environment within which you work operate as a complex, dynamic system?
* How will your strategy engage the system in order to have a highly leveraged impact?
* How will you test your assumptions and hypotheses about how your system works so that you can learn and adapt effectively?

The version of Systems Practice that will be taught in this course uses dynamic systems analysis (mapping) to gain clarity about your environment as a dynamic system. It then helps you identify and engage opportunities to gain leverage. It also provides an approach to effectively learn and adapt your understanding of your system as you engage it.

“The problems facing today’s world— global poverty, disease, climate change – are more complex than ever before and solutions require interdisciplinary thinking and cross-sector collaboration.”

-Bret Anders, Brown University

### CAN YOU COMBINE SYSTEMS PRACTICE WITH OTHER METHODS?

YES! The systems practice we will walk you through is a fairly comprehensive version of how to do a systems analysis of a complex context in order to address a challenging and adaptive problem. Having mastered the various techniques in this course, you will also be able to customize and fine tune an approach that best fits your needs.

You will find that you can use your systems map in combination with other strategy tools like actor maps (also known as stakeholder maps) and future trends maps.

# WHAT IS SYSTEMS PRACTICE?

## Understanding what it is NOT

Systems Practice has its roots in multiple disciplines and people use the term in many different ways. For the purposes of this course, we’ll be sticking to the definition outlined on the previous page. To give you some added clarity, here are three things we do NOT mean when we refer to a “systems practice.” We figure it’s best to clear things up right from the beginning!

## 1. Not quantitative modeling

This systems practice is not based on developing a predictive, quantitative model. We have found that systems modeling can sometimes be deceptive in the clarity it seems to provide (i.e. offering a false sense of precision). It’s also not always readily accessible to practitioners. In this course, we’ll build systems maps, but we will do so largely using qualitative methods (though informed by data), rather than relying on algorithms to generate models of systems at scale. Our approach will emphasize collective sensemaking, physical map building, and storytelling, rather than automated outputs.

TIP: You can combine Systems Practice with other approaches to strategy development including network analysis and foresight.

## 2. Not creating an actor map

Systems practice is not merely creating a network map, an actor map, or a stakeholder map. Understanding the people and entities that make up a system is important, but is just one layer of a systems practice. When we build a systems map, we’ll move beyond considering the “elements” and people in the system to uncover the dynamic forces, figure out how they are connected, and then discover the core story or deep structure of the system before we identify leverage points.

## 3. Not a way to find a magic lever

Systems practice is not a means of finding a magic lever or button. When some people learn about finding leverage in a system, they imagine that if they can just pinpoint the right area for an intervention, they can pull a magic lever and change will happen instantly. Not so. Systems practice can help you act more strategically, but it’s not going to allow you to find magical shortcuts to very complex issues. Instead, it should help you find the most promising opportunities to create sustainable and deep change and a robust way to make sense of how a system is changing in response to your intervention.

# IS SYSTEMS PRACTICE RIGHT FOR YOU?

## Will Systems Practice be a fit?

So now that you understand what we mean by “systems” and “systems practice’” it’s time to start considering your own work and the challenges you are trying to tackle. The first step in applying a systems practice is understanding what kind of challenge you are facing and whether a systems practice is right for you. This will be an exercise you complete in Workbook 1. In general, this might be the right approach for you if:

## 1. You operate in a complex context

In general, you should keep in mind that if you’re in an environment where problems keep morphing, it feels like a straightforward approach can’t work, and you struggle to keep up with the pace of change, these are all good indicators that you are operating in a complex, adaptive environment and a systems practice is right for you.

“When introducing new staff to systems practice, I describe it as fundamentally a sense-making process. While systems mapping is a great tool for new learning, it has also been powerful in helping to bring into sharper focus what we already knew and to align assumptions across our organization and with key partners.”

-Donata Secondo Strategy, Impact and Learning Associate, Democracy Fund

## 2. You have time to step back

You should also consider using a systems practice if you have the time and space to step back and analyze your work. We really cannot emphasize enough that this plearning process will yield much richer outcomes if you rally a team of coworkers to join you and carve out the recommended amount of time to work through these activities. A systems practice requires co-creating knowledge and narratives. The process of being in the room working through these questions with your colleagues and other stakeholders is part of the outcome and therefore not something that we’ve found can be rushed through. So get comfortable with dedicating time to this project now so that your work can be more effective later.

## Take the diagnostic in the workbook!

Once you’ve completed this first reading and watched the videos for Module 1, you’ll have covered a lot of foundational ground for this course. Nice work. Keep in mind that for this first week, your individual preparation will be more intensive and the activities you complete with your group will be a bit lighter. But as you progress through the 8 weeks of this course, that balance will start to shift. We’ll be giving you less background reading and you’ll spend more time with your team doing the work and generating useful insights. So stick with it! Once you’ve finished this, move on to the workbook to take a diagnostic to make sure Systems Practice is right for you and your team.