

SPECIAL RESOURCE FOR
UTILIZATION-FOCUSED EVALUATION, 5TH EDITION

Expanding Futuring Foresight Through Evaluative Thinking

Workshop resource from Michael Quinn Patton

The fields of futures studies and evaluation include a broad range of people who use a wide variety of techniques to make inquiries into how the world is changed. “Futurists aim to teach the insights and tools of futures studies so that both ordinary people and key decision makers will make more effective decisions, thereby improving their individual lives as well as the public good” (Bell, 2003, p. 75). Futurists study and offer insights and foresights about the future in order to alter perceptions, decisions, and actions in the present that affect the future. Evaluators study the past (what programs have already done) in order to understand what works and what doesn’t work to alter perceptions, decisions, and actions in the present that affect the future. In this sense, then, both futurists and evaluators are interested in altering perceptions, decisions, and actions in the present, the impact of which will be a changed future. Evaluators do so by looking at what has already occurred, detecting patterns of effectiveness, and extracting lessons for the future. Futurists do so by constructing diverse possibilities, identifying trends, and contributing foresights about what may occur, often imagining and analyzing alternative scenarios. Assessing the likelihood of various future scenarios requires evaluative thinking and judgments. Though futurist and evaluators employ different methods, they share similar aims. Both aspire to contribute to social betterment. Given the common interests that futurists and

evaluators share in affecting the future, and given that both fields employ *evaluative thinking* in making interpretations and rendering judgments (Patton, 2018a), this article offers reflections on how some important evaluation distinctions might inform the work of futurists.

Reflective Practice for Cross-Field Pollination

Scholars of decision-making and expertise have found that what distinguishes people with great expertise is not that they have more answers than others, but they are more adept at situational recognition and more intentional about their decision-making processes (Klein, 1999; Patton, 2014). We can, in fact, come to recognize our analytic tendencies and learn to identify the thinking processes that determine our impressions. In so doing, we can learn to be alert to the biases to which our thought processes make us liable. (Tversky & Kahneman, 1974, pp. 1124–1125; Kahneman, 2011). We can do this through ongoing and in-depth reflective practice. Perhaps, then, if we as evaluators can provide insights into how we assess situations and arrive at evaluative judgments, futurists can use those insights to examine their own analytical processes. That cross-pollination may inform the practices of both futurists and evaluators.

For example, as distinguished psychometrician and evaluation pioneer Lee J. Cronbach observed, “results of a program evaluation are so dependent on the setting that replication is only a figure of speech; the evaluator is essentially an historian” (Cronbach et al. 1980, p.7). A completed evaluation study describes what has occurred. But, in addition to portraying what has been, evaluators are routinely asked to make recommendations. In so doing, evaluators move from being historians to become futurists.

Recommendations provide guidance about how to attain specified future desired results if certain actions are taken. These forecasts are based on evaluators’ foundational analysis and

interpretation of what has occurred in the past. The accuracy of such forecasts, as with any predictions about the future, is subject to error due to changed conditions and the validity of assumptions that are necessarily made. Futurists have developed approaches for dealing with the uncertainties of their forecasts. Some of these approaches, I have found, hold promise for evaluation. For example, futurists have developed techniques for constructing alternative scenarios that permit decision makers to consider the consequences of different assumptions and trends. These are variations on “if → then . . .” constructions. There are often three to four different scenarios constructed: a pessimistic scenario, an optimistic scenario, and one or two middle-of-the-road or most likely-case scenarios. The very presentation of scenarios communicates that the future is uncertain and that the way one best prepares for the future is by preparing for a variety of possibilities (Patton, 2008, 2012).

General Robert E. Lee is reputed to have said, “I am often surprised, but I am never taken by surprise.” That is the essence of a futures perspective—to be prepared for whatever occurs by having reflected on different possibilities, even those that are unlikely.

So, what have evaluators learned about making their work useful, including generating recommendations (futures projections), that may inform futures thinking and analysis?

Matching Evaluations to the Nature of the Situation

Roth and Shapley were awarded the 2012 Nobel Economics Prize for matching theory. They examined how to pair doctors with hospitals, students with schools, kidneys with transplant recipients, and even men with women in marriage. The most fundamental lesson evaluators have learned is the necessity of matching the evaluation approach to the nature of the situation which includes being clear about who the evaluation is for, what is being evaluated, and how findings

will be used (Patton, 2008, 2012). The key evaluation design question is: What evaluation approach is appropriate for whom in what ways under what circumstances for what uses?

Answering this question has generated alternative evaluation approaches. The logic and criteria embedded in these diverse evaluation approaches can inform futurist inquiries. What follows are six distinct evaluation niches that illustrate distinctions and techniques that may be relevant in futures studies. These are five from among a great many evaluation possibilities. I have chosen these five because they offer distinct contrasts. I'll briefly explain each evaluation approach, then offer a foresight implication for futurists.

**Six different evaluation niches that offer distinctions and techniques
potentially relevant in futurist inquiries**

1. *Summative evaluation.* Summative evaluations serve the purpose of informing major decisions by rendering overall judgments of merit, worth, and significance. The evaluation sums up the cumulative evidence and renders definitive judgment as if from a mountain summit, thus the term “summative evaluation.” Is the program effective? Should it be continued or terminated? Does it constitute a model that should be expanded and replicated in new locations? The question of replicability deserves elaboration. Summative evaluations aspire to identify effective, replicable models. This is both the strength and weakness of summative judgments, their strength in that they rigorously test for effectiveness, their weakness in that the very nature of the testing generates rigid models. When futurists encounter models that have been judged effective and replicable through summative evaluation, they would do well to examine the likely relevance of the tested model for a changed future. Let me elaborate this point by looking at how evaluation has traditionally operationalized the summative criteria of relevance and sustainability.

The criteria formulated in 1991 by the Development Assistance Committee (DAC) Network on Development Evaluation of the Organization of Economic Cooperation and Development (OECD) are still in force and may well be the most widely used set of evaluation criteria in the world. International agencies worldwide apply these criteria which call for evaluations to examine a program's (1) relevance, (2) effectiveness, (3) efficiency, (4) impact, and (5) sustainability.

Relevance concerns the model's effectiveness, efficiency, and impact in solving identifiable problems, which is the basis for determining replicability.

Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn.... [so] it is useful to consider the following questions:

- To what extent did the benefits of a program or project continue after donor funding ceased?
- What were the major factors which influenced the achievement or non-achievement of sustainability of the programme or project? (DAC, 1991, p. 1)

The DAC definition above conceptualizes sustainability as continuity of the funded program and its achieved results and relevance as generalizability of the model as tested. This has been and remains the dominant perspective on sustainability and relevance by funders, those who receive funds, and, therefore, of evaluators. These criteria are quite understandable from a funder perspective. Funders want to see change and want those changes to be maintained where they were tested and their impact increased through replication. Evaluators are commissioned to determine both whether the intended changes occurred, and if so, whether they can be sustained

and replicated. This is fundamentally an accountability perspective imposed from the perspective of funders who must demonstrate that they have made good use of the assets entrusted to them. But relevance (replication) of a standardized model and *sustainability as continuation* are linear, mechanistic, and static. It is a logic of moving from one condition (a problem) to a new condition (a solution) in a way that the problem does not recur and the solution lasts and can be applied elsewhere in the same way. This is how evaluators have come to think and practice, but this way of conceptualizing and evaluating summative effectiveness may limit future adaptability. A futurist view of sustainability, it seems to me, begins by acknowledging that change is constant, which means that interventions that have worked well in one time and place must be flexible and adaptable to be relevant for the future, which makes model adaptability not rigid continuity the critical evaluation criteria for futuring. What has not been sufficiently acknowledged, in my view, is how dramatically such a dynamic and complex perspective of sustainability departs from the dominant paradigm under which most evaluations operate. I'll elaborate this point below in discussing developmental evaluation and systems change evaluation. First, let me discuss formative evaluation.

Futurist implication: When considering the future relevance of a program or intervention identified as a model ("best practice") through summative evaluation, examine the likelihood of that model working in diverse contexts including different future scenarios. Distinguish continuity from adaptability as criteria of merit and worth.

2. *Formative evaluation.* Formative evaluations aim to improve a program or intervention.

The formative-summative distinction was first conceptualized for school curriculum evaluation by distinguished philosopher and evaluator Michael Scriven (1967). A summative evaluation addresses the most fundamental question in evaluation: Did the program work? When one says about a program that “it worked” (or didn’t work), what is IT? What is the thing that worked or didn’t work? To conduct a summative evaluation, the program must be identifiable, specifiable, stable, implementable, standardized, and replicable – otherwise, we don’t know what’s been evaluated. The IT is the model that is being evaluated. That’s where formative evaluations come in. Scriven argued wisely that before a curriculum was summatively evaluated, it should go through a period of revision and improvement, working out bugs and problems, filling in gaps, and getting student reaction, to assure that the curriculum was ready for rigorous summative testing. The idea of formative evaluation has spread beyond curriculum evaluation to refer to any evaluation that improves a program and prepares it for summative evaluation by identifying and correcting implementation problems, making adjustments based on feedback, providing an early assessment of whether desired outcomes are being achieved (or likely to be achieved), and getting the program stabilized and standardized for summative evaluation.

For futurists, thinking formatively means anticipating what kind of issues and problems may arise in implementing an initiative or intervention. It is especially important to be alert to possible implementation problems. When something doesn't work, evaluators distinguish three primary reasons: theory failure, meaning it was a bad idea; implementation failure, meaning we don't know whether it was a bad idea because the idea was never adequately executed and implemented; or, evidence failure, meaning we have insufficient evidence to determine the reason for failure. Anticipating the need to know why something didn't work requires

anticipating the nature of evidence that will be needed to generate such knowledge. Cumulative evaluation experience and evidence yields a version of the 80/20 rule: 80% of failures are implementation failures, only 20% are idea failures. This heuristic offers futurists foresight wisdom about paying particular attention to potential implementation barriers: inadequate capacity, insufficient resources, faulty assumptions about the future situation, and, especially, inadequate gathering of data along the way to be able to determine what improvements are needed and, when failure occurs, why it has occurred. These are not simply short-term management considerations because what constitutes failure is determined by the longer-term vision that guides shorter-term adjustments along the way toward that vision. From this perspective, foresight thinking should include some attention to what may be encountered along the way.

Futurist implication: Identify when and if what is being contemplated will likely need improvement. If so, determine how a futurist inquiry could inform the improvement process. Identify what success would look like – and what would constitute failure.

3. *Developmental evaluation.* Developmental evaluation supports innovation development to guide adaptation to emergent and dynamic realities in complex environments. Innovations can take the form of new projects, programs, products, organizational changes, policy reforms, and system interventions (Patton, 2011) A complex system is characterized by a large number of interacting and interdependent elements in which there is no central control; self-organizing and emergent behaviors based on sophisticated information processing generate learning, evolution,

and development. Complex environments for social interventions and innovations are those in which what to do to solve problems is uncertain and key stakeholders are in conflict about how to proceed. Informed by systems thinking and sensitive to complex nonlinear dynamics, developmental evaluation supports social innovation and adaptive management. Evaluation processes include asking evaluative questions, applying evaluation logic, and gathering real time data to inform ongoing adaptations. The evaluator helps a development team whose members collaborate to conceptualize, design, and test new approaches in a long-term, on-going process of continuous development, adaptation, and experimentation, keenly sensitive to unintended results and side effects. The evaluator's primary function in the team is to infuse team discussions with evaluative questions, thinking, and data, and to facilitate systematic data-based reflection and learning in the developmental process (Patton, 2011). Developmental evaluation uses some of the methods of action research but is different in purpose in that the former is aimed at innovation development and the latter is typically, though not always, focused on more immediate problem solving.

The foresight offered by developmental evaluation is that in complex dynamic environments characterized by turbulence and uncertainty, social innovators need data to inform ongoing, real-time adaptation. This form of evaluation is especially appropriate for situations of emergence and experimentation where it is not possible in advance to know all of the challenges, an intervention or initiative may face. This is sometimes characterized as “build it while you fly,” or “learn by doing.” Developmental evaluation thinking invites futurists to determine if the situation going forward is one of high uncertainty and complexity that will require ongoing adjustments and adaptations.

Futurist implication: When working with social innovators in complex dynamic situations, use futurist inquiry approaches that support ongoing adaptation and continuous futuring.

4. *Systems change evaluation.* Systems change evaluations determine the impacts of major systems change initiatives. Evaluation 'grew up' doing project evaluations grounded in a project mentality. Formative and summative evaluations are based on a search for projects that can be generalized as "best practice" models to other locations and scaled for greater impact. Much of evaluation's tools and techniques are based upon project thinking. But increasingly funders and policy makers are interested in changing systems. The foresight offered by systems change evaluation is that program change is different from systems change – and requires different ways of thinking, engaging, evaluating, and, might we add, futuring. This deserves further elaboration.

The dominant focus of evaluation (unit of analysis) has been and remains a project or program model. What is called in evaluation jargon the "evaluand," *the thing evaluated*, determines the focus and methods of an evaluation. Evaluators have been socialized to design interventions using project thinking, indoctrinated in how to make meaning of what we see by reducing complex dynamic systems to linear logic models, and inculcated with closed system concepts, categories, and catechisms that are the bedrock of the project design and evaluation mentality. As noted in discussing summative evaluation, the world is in search of scalable models. Scaling a model invites fidelity evaluation: Was *the model* replicated in new sites exactly as prescribed? Evaluations using randomized controlled designs are fundamentally based on a search for standardized, replicable, scalable models. The view of change represented

by the dominant project paradigm is spreading effective models worldwide through replication.

In contrast, where systems are the evaluand, context matters. Standardized replication is static. Systems change is dynamic, contextually adaptive, and resilient in the face of the uncertainties and turbulence of complexity. Evaluating the nature and scope of systems change is an altogether different proposition from evaluating static, standardized models. Systems thinking as a new direction for evaluation involves a significant change for those who design interventions, for evaluators, and, correspondingly, for futurists.

I shall argue that the project mentality that undergirds and dominates planning, design, and evaluation approaches has become so dominant and routine throughout the world that it constitutes a paradigm – and following that paradigm as a matter of generally accepted (and unquestioned) practice limits our effectiveness in dealing with global problems like climate change, worldwide poverty, the international refugee challenge, and the other global issues at the center of planetary sustainability.

Such evaluation tools as logic models and SMART¹ goals work well for project and program evaluation. They do not work well, are not useful, for evaluating global systems change geared toward dynamic, adaptive, and resilient sustainability. Projects, programs, and standardized models are closed systems, or at least treated as such in most designs and evaluations. Those designing interventions establish boundaries and exercise control by focusing on identifiable inputs, planned and implemented activities, expected outputs, and clear, specific, and measurable outcomes for targeted program participants. This is the logic of logic models.

¹ SMART goals are specific, measurable, achievable, relevant/realistic, time-bound/timely.

Logic models are based on linear assumptions that a well-designed and well-executed intervention will attain desired goals.

In contrast, interventions introduced into complex dynamic systems unfold in open systems characterized by volatility, uncertainty, and unpredictability, all of which make control problematic. For those designing and implementing systems change interventions, they must be innovative, adaptive, responsive, nimble, and agile. Evaluations under such conditions must be emergent, developmental, adaptable, dynamic, and responsive. If evaluators force complex systems change interventions into traditional project boxes aimed at standardization, predictability, and simple, linear attribution, they inhibit innovation, adaptation, and responsiveness, and thereby doom the interventions to failure – failure as judged by traditional criteria that flow from the standard project evaluation questions presented above. Using an inappropriate evaluation approach, one not well-matched to the nature and complexity of the situation and intervention not only fails to generate meaningful findings but can do real and lasting harm by limiting adaptability.

The project mentality isn't just an evaluation problem. Forcing complex systems change interventions into traditional project boxes with linear logic models aimed at SMART goals occurs among the full range of people and institutions attempting to bring about change. Planners and program designers are adept at planning and designing projects and programs. Funders are experienced and comfortable with project and program proposals. International agencies, philanthropic foundations, and government departments issue thousands of requests for proposals every year -- requests for projects and programs. Successful proposal writers, who respond to requests for proposals, excel at generating the appropriate kinds of projects and

programs that funders are looking for and prepared to fund.

Leaders and implementers know how to deliver projects and programs. Reporting, monitoring, and accountability templates are based on project logic. Evaluators reinforce the project mentality at every stage of their engagement from participation in logic modelling to selection of methods and measures, right on through to analyzing data and presenting findings.

The project mentality has thrived for a half-century. The project mindset is dominant in every sphere of change. The project approach is deeply embedded in institutional strategies. The project mentality is insidious and dangerous, as is any mindset that becomes dogmatic. As French philosopher Émile Chartier (1868-1951) observed, "Nothing is more dangerous than an idea when it is the only one you have." Or as stated in more colloquial wisdom, *when all you have is a hammer, everything looks like a nail*. When all you know how to design and/or evaluate are projects, then everything you do will take the form of a project.

Let me pause here to emphasize that this is not an attack on projects and programs, or project and program evaluation. Effective projects and programs help a great many people. Successful health programs make people healthier and prevent disease. Effective school programs increase student learning. Exemplary employment training programs help the unemployed get jobs. Well-conceived and well-implemented programs for the homeless get people in need off the streets and into safe housing. I am not disputing that effective programs of all kinds achieve important and desired outcomes for intended beneficiaries. What they don't do is change systems. Indeed, my conclusion after observing effective and exemplary programs over five decades of evaluation practice is that, when programs are successful, it is often because they have succeeded in insulating themselves from the status-quo-serving systems

that surround them. They create islands of protected and isolated effectiveness in a sea of need and suffering. They do good, meritorious good, significant good, worthy good, but they don't do transformative good.

On the other hand, projects and programs that are ineffective often fail because they're not able to insulate themselves from the status-quo-serving systems that surround them, and of which they are a part. They are crushed in their attempts to innovate by the dominant forces in those systems that push back against and undermine their efforts at change.

I readily acknowledge that there are exceptions to the patterns I'm describing, but I find they are rare. Still, I invite you to make your own judgment. How much major systems change do you see going on? Not just talked about, but actually going on. You will have no difficulty locating programs and projects of all kinds, many effective, many ineffective, a mixed bag, to be sure. But what you won't find much of, if any at all, are projects and programs transforming systems. Those paying attention to the state of the world, now sounding the alarm and calling for major systems change, do so in recognition of the wisdom from distinguished management consultant Peter Drucker, that "The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday's logic" (quoted by Carrigan, 2010, p. 99).

The dominance of the project mentality endures, though there are pockets of innovation, including especially the influence of systems thinking and complexity theory on both the design and evaluation of innovations as illustrated and illuminated in this volume. The new direction in evaluation – *and it is a new direction* – reconceptualizes evaluation in ways that transcend the dominant project model mentality.

Futurist implication: Be mindful of the focus of future change: a project, a

program, or a system? Different units of change (evaluands) require different ways of thinking, different methods, and different engagement processes. Adapt futuring processes to the nature of the thing being changed.

5. *Principles-focused evaluation.* Evaluating the effectiveness of principles involves assessing the meaningfulness, adherence to, and results of following principles. Principles are yet another distinctive evaluand (focus of evaluation). Principles-focused evaluation involves judging what principles work in what ways for what situations with what results. More specifically, principles-focused evaluation examines (1) whether principles are clear, meaningful, and actionable, and if so, (2) whether they are actually being followed and, if so, (3) whether they are leading to desired results. In making these judgments, principles-focused evaluation informs choices about which principles are appropriate for what purposes in which contexts, helping to navigate the treacherous terrain of conflicting guidance and competing advice. Thus, from an evaluation perspective, principles are hypotheses not truths. They may or may not work. They may or may not be followed. They may or may not lead to desired outcomes. Whether they work, whether they are followed, and whether they yield desired outcomes are subject to evaluation.

Principles-focused evaluation is a relatively new and emerging direction in evaluation. Evaluating principles is also different from evaluating projects. Principles-driven programs are different from goals-driven programs. Principles constitute a different kind of evaluand. Principles take on added importance among the new challenges for evaluation because principles

are the primary way of navigating complex dynamic systems and engaging in strategic initiatives. Principles undergird efforts at community change and collective impact.

Below are examples of principles-driven collective action. These will be elaborated and discussed in more depth as we go along, but these brief synopses will give you a sense of the nature and variety of principles-driven programs, collaborations, and reform efforts. Below are two examples of principles-focused approaches.

- Twenty philanthropic foundations focused on improving food systems for the poor decided to collaborate in order to have greater collective impact. To do so, they concluded that they needed to identify and commit to shared principles. So they did. They are now the *Global Alliance for the Future of Food*.
- Over 100 countries and international development agencies signed an agreement to transform the international development assistance system. The agreement, signed in Paris in 2005, consists of five principles that, if and when implemented, would fundamentally alter how development assistance is given, received, administered, and implemented to achieve greater impact. A principles-focused evaluation examined both implementation and impacts of the Paris Declaration on International Aid. (Patton, 2013)

An effectiveness principle is a statement that provides guidance about how to think or behave toward some desired result (either explicit or implicit) based on norms, values, beliefs, experience, and knowledge. The statement is a hypothesis until evaluated within some context to determine its relative meaningfulness, truth, feasibility, and utility for those attempting to follow it.

The GUIDE framework for evaluating principles (Patton, 2018b) examines the extent to which statements of principles (1) provide meaningful guidance, (2) are useful in decision-making, (3) are inspirational, (4) support adaptation and development, and (5) are evaluable.

An example of applying principles-focused evaluation to futuring would be to examine Stephen Millett's widely cited five principles of futuring as applied history

- Futuring Principle 1: The future will be some unknown combination of continuity and change.
- Futuring Principle 2: The future can be anticipated with varying degrees of uncertainty depending upon conditions.
- Futuring Principle 3: Futuring and visioning are different but complementary perspectives of the future.
- Futuring Principle 4: The best forecasts and plans are methodically generated and provide well considered expectations for the future.
- Futuring Principle 5: There is no such thing as an immutable forecast or plan for an immutable future. Forecasts and plans must be continuously monitored, evaluated, and revised according to new data and conditions in order to improve real-time frameworks for making long-term decisions and strategies. (Millett, 2011a,b).

These are not, in fact, effectiveness principles according to principles-focused evaluation. They do not meet the GUIDE criteria. The statements express opinions and conclusions, not guiding principles. Principles-focused evaluation emphasizes the difference. The second sentence of Principle 5 could be converted to a principle. It would read: *Continuously monitor, evaluate,*

and revise forecasts and plans in light of new data and conditions in order to improve real-time frameworks for making long-term decisions and strategies. That principle nicely and insightfully integrates evaluative thinking and futuring.

Futurist implication: Understand principles as a unique tool for futuring. Use the GUIDE framework to evaluate the meaningfulness, validity, and effectiveness of principles to inform futuring,

6. Blue Marble Evaluation. *Blue Marble* refers to the iconic image of the Earth from space without borders or boundaries, a whole Earth perspective. We humans are using our planet's resources, and polluting and warming it, in ways that are unsustainable. Many people, organizations, and networks are working to ensure the future is more sustainable and equitable. Blue Marble evaluators enter the fray by helping design such efforts, provide ongoing feedback for adaptation and enhanced impact, and examine the long-term effectiveness of such interventions and initiatives. Incorporating the Blue Marble perspective means looking beyond nation-state boundaries and across sector and issue silos to connect the global and local, connect the human and ecological, and connect evaluative thinking and methods with those trying to bring about global systems transformation. The focus is evaluating global sustainability and equity (Patton, 2016, 2019)

Evaluating global systems dynamics poses a particularly daunting challenge as we learn to view the Earth and the Earth's inhabitants as a holistic interconnected global system. The evaluation profession had been mostly blind to this larger pattern of Earth's systems changes until recently. The theme of the 2014 annual conference of the American Evaluation Association

was *Visionary evaluation for a sustainable, equitable future*. The 2018 theme of the Australasian Evaluation Society was *Transformations* while that of the European Evaluation Society was *Evaluation for More Resilient Societies*. The theme of the 2019 conference of the International development Evaluation Association (IDEAs) was *Evaluation for Transformative Change*. Evaluating transformation has arrived on the agenda of the global evaluation profession.

As global sustainability is becoming a universal concern, evaluating sustainability is becoming a universal evaluation concern. The notion of making global sustainability a universal criterion in evaluations flows from the premise that climate change and global inequality are the crises of our time and that addressing climate change and inequality should be part of the mission of every non-profit, international agency mission, and every government initiative. As the global crises deepen, understanding that we all have skin in the game will become more universal. In the midst of the storm everything becomes about the storm. Evaluators need to be ready for the global storm and prepared to make addressing the realities of climate change a part of everything we do.

Adopting and adapting new technologies to serve Blue marble evaluations moves the profession from just Blue Marble thinking to Blue Sky thinking (imagining the future). Big Data, artificial intelligence (AI), systems mapping, remote sensing, GIS, robotics, animation, foresight scenarios, and blockchain technology are examples of new technologies that the Blue Marble evaluator, an eclectic methodologist, will need to understand and use as appropriate.

Blue Marble evaluation integrates design, implementation, and evaluation. Evaluators bring their knowledge and expertise to bear in the design of resilient, sustainability-oriented interventions and initiatives. When an intervention and, correspondingly, an evaluation fail to

incorporate an ecological sustainability perspective, both are engaging from a closed system mindset, disconnected from larger patterns and realities---like turning a crank that isn't connected to anything. It is essential for planners, implementers, and evaluators at the beginning of their work together to routinely analyse the sustainability and equity issues presented by the formulation of the intervention and the implications for evaluation. Blue Marble evaluation premises and principles provide a framework for that initial review, ongoing development and adaptation, and long-term evaluation of systems transformation contributions and impacts.

Blue Marble evaluation looks backwards (what has been) to inform the future (what might be) based on the present trajectory (what is happening now). Evaluators examine what has worked and not worked in the past, not just to capture history, but to inform the future. Forecasts for the future of humanity run the gamut from doom-and-gloom to utopia. Evaluation as a transdisciplinary, global profession has much to offer in navigating the risks and opportunities that arise as global change initiatives and interventions are designed and undertaken to ensure a more sustainable and equitable future. (Patton, 2016, 2019)

Conclusion

Different evaluation approaches serve different purposes and meet the needs of different intended users. The overall insight from evaluation that might inform future endeavors is to engage in thoughtful situation analysis to determine what approach to evaluative thinking will be most appropriate to inform decisions as forward-looking initiatives are designed and implemented. Exhibit 1 summarizes these six evaluation approaches and their implications for futuring foresight.

Exhibit 1

**Five different evaluation niches that offer distinctions and techniques
potentially relevant in futurist inquiries**

Evaluation approach	Evaluation Focus	Primary intended users of the evaluation	Futurist implication
1. Summative evaluation	Inform major decisions by rendering overall judgments of merit, worth, and significance. Identify models worthy of replication (being taken to scale).	Funders and policy makers	Determine if a major decision looms in the future. If so, how would a futurist inquiry or process inform the decision-making? Examine the extent to which effective models are adaptable to changed conditions in the future.
2. Formative evaluation	Improve a program or intervention	Program staff	Identify when and if what is being contemplated will likely need improvement. If so, determine how a

			futurist inquiry could inform the improvement process.
3. Developmental evaluation	Support ongoing development and adaptation of an innovative initiative.	Social innovators, social entrepreneurs	Engage social innovators in ongoing futures analysis to inform ongoing adaptation.
4. Systems change evaluation	Determining the impacts of systems change initiatives.	Social movement advocates aiming at major systems change.	Approach systems change as different from project and program models of change. Adapt futuring processes to the nature of the target of change.
5. Principles-focused evaluation	Evaluating the meaningfulness, adherence to, and results of following principles.	Principles-driven leaders and organizations	Understand principles as a unique tool for futuring. Use the GUIDE framework (Patton, 2018b) to evaluate the

			<p>meaningfulness, validity, and effectiveness of principles to inform futuring,</p>
6. Blue Marble Evaluation	<p>Blue Marble Evaluation works beyond nation-state boundaries, across sector and issue silos, and connects the global with the local, offering a vision of and methods for world savvy evaluators to be global, dynamic systems thinkers who engage knowledgeably in addressing world</p>	<p>Those involved with global transformation initiatives: funders, policy-makers, visionaries, global change agents, and global network leaders.</p>	<p>When generating foresight about global systems transformation, incorporate Blue Market Evaluation principles of global, cross-boundary and cross-silos thinking, connecting the global and local, and integrating human system and ecosystems changes.</p>

	systems transformations through evaluation.		
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