

Research Initiative for Policy Design Synthesis

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Preface

Policy design synthesis is a new concept aimed at incorporating characteristics of design thinking into the policy making process. Using a computer-supported planning process called Structured Planning; our team presents a study to identify areas of research necessary to develop tools for policy design synthesis.

Background

In the 1980's, with the first comprehensive gathering of data on global warming, tangible effects of population growth began to be firmly associated with the actions of industrial society. Meeting the demands of a growing population for material goods was beginning to be seen as a two-way street. The concept of a "better life" was beginning to look like a relative one—briefly better, relative to the past, but frighteningly better, relative to a very uncertain future.

Because few listened when something might have been done about it, we are now confronted with global warming as an observable, highly threatening fact. Like many other massive events, it took a long time to gain strength, and it will take longer to lose it. It is still in a strengthening pattern, and it is hard to see how that will change in the foreseeable future.

In spite of world-wide awareness, population growth also is still in an accelerating phase. The population of the world is now 6.46 billion and rising. Just 50 years ago it was 2.76 billion. Despite the fact that almost all developed nations are at replacement-level birth rates—or lower—world population is still on a steep incline because of high birth rates in developing countries. Before world population begins to level off, we can expect to see the number rise to over 10 billion—barring catastrophic events.

And catastrophic events are distinct possibilities, growing in probability every year, all because of population growth. A better life for a growing population—even eliminating poverty, as the September 2005 issue of *Scientific American* argues as a goal—means more energy to be produced and more resources to be processed. Without sustainability, this can only mean unchecked resource depletion and uncontrolled greenhouse gas emissions. Both will generate disasters at an accelerating rate.

Global population growth and the problems it has induced—from resource depletion to global warming—are arguably the most serious threats ever to our civilization. But as we finally commit to

confronting them, technologies now just evolving will put awesome new capabilities at our disposal. We may yet be able to escape the worst ravages, perhaps even bring better quality of life to our descendents. The question is, will our political decision makers have the wisdom to avail themselves of the right tools at the right time? Will we be able to avoid the worst of projected disasters and make best use of the new technologies? Decision makers will need the best of creative thinking from the science community—and from a design community prepared to contribute.

The evidence is that decision makers are not using—or receiving—the full range of advice they need. Advice that offers proactive, constructive, creative options for action is not being heard. The design community must assume new responsibilities and reinvent itself to fill this void. In so doing, it will have to rethink matters of education, research and professional activity, and it will have to prove to leaders that design thinking is a critically valuable asset.

Relevant Trends

Trends initiated by emerging technologies, changing environmental conditions, and evolving social change will have real impact on the situation. Among such trends are:

Food Production on Land

Food production for a growing population is an absolute requirement. In the last 50+ years, beginning with the green revolution that virtually saved India from starvation, the rise in food production has outstripped population growth. But arable land per capita continues to decrease—by 2050, it will have decreased over 62% since the 1960's—and productivity cannot increase indefinitely.

Food Production at Sea

The oceans, once thought to be a limitless food source, are fast becoming a depleted resource. Stocks of wild finfish and shellfish are declining alarmingly. The fishing industry is turning more and more to deep-water species to replace them, often with little knowledge of the biology of the replacement species.

Water Resources

Already in many parts of the world, water supplies are reaching levels of insufficiency. Complicated by agricultural needs for irrigation and the needs of urban centers becoming megacities, the fresh water resources of our lakes, rivers and subsurface aquifers are subsiding. In 2003, 9,500 children were dying daily from insufficient or contaminated water supplies. One-third of the world's population, by some experts' analysis, live in water-stressed countries now, with two-thirds of the world to share their dilemma by 2050.

Mineral Resources

Mineral resources are approaching finite limits, exhausted in some locations, more difficult to extract in others. While supplies of some minerals are in no immediate danger, others are under severe pressure. Oil is a resource of vital concern, with production expected to peak in this decade or shortly thereafter. The Hubbert Curve, long-used as a predictive tool in the petroleum industry, when coupled with modern corrective tools, predicts that we are reaching worldwide peak production now and face a reduction in production of approximately 3% per year very soon. Not only will that oil production have to be replaced as an energy source, additional energy sources will have to be found to keep pace with the population curve.

Population Movement

In an interesting paradox, the countryside is becoming less—not more—inhabited as we add to the population. The people are moving from the country to the cities. As of this year, 2005, the world is more urban than rural for the first time. In the next fifteen years 300 million rural Chinese will move to the cities. In 1950, only two cities in the world, Tokyo and New York City, were over 10 million in size. By 1975 there were 4 such megacities, and by 2003, there were 20. By 2015 there will be at least 22. In China alone there are between 100 and 160 cities with over 1 million inhabitants (America has 9, and Eastern and Western Europe together have 36). Cities are complex, sophisticated systems, but their managers will need all the skill they can command to deal with the great urban migration.

Climate Change

Climate and weather patterns are changing. Some regions are simply getting drier or wetter, but the greatest damage will come from sustained, severe droughts and intense, prolonged flooding. The problem is change: eco-systems confronted with wetter or drier conditions for periods far longer than the environment or its inhabitants are prepared.

Rising Ocean Levels

Ocean levels are rising. Temperature rise under global warming is greatest at the poles, and polar melting is accelerating. Melting icebergs have little effect on rising water levels because the ice is already floating, but ice melting on land, such as in Greenland and Antarctica, will contribute to rising water levels, and the thermal expansion of water as it is heated a degree at a time will also contribute. The Intergovernmental Panel on Climate Change in its 2001 report, estimates a 45 cm (18 inch) mean rise by the end of the century with a low estimate of 9 cm (3.5 inches) and a high estimate of 88 cm (35 inches). Many of the world's major cities are on ocean coasts or waterways close to the oceans.

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Storm Violence

The increased heat energy created by global warming is feeding more violent storms. Storms over the water will increase in number and in violence. Storms over land, although less subject to the stimulation of ocean heat, will draw from the weather systems that build over the oceans and move readily onto land. All but the regions most remote from the coasts will be influenced. Category 4 and 5 levels can be expected increasingly for hurricanes, cyclones, typhoons and tornados.

Moving Ecological Zones

On a longer scale, climate changes are moving the zones in which species can live. Warmer winters, earlier springs and hotter summers are changing key environmental characteristics crucial for species' survival, even existence; and as ecological zones migrate northward (or southward in the southern hemisphere), they will do so at a pace too fast for plant species to follow. When species disappear, others dependent on them are also affected, and eco-systems disintegrate. Biodiversity will decrease and extinctions will take place.

Increasing Expectations

The growing availability and capabilities of communications such as cellular telephones, satellite and cable TV, and the Internet across the country (and the world) are providing people with daily knowledge of living conditions, problems, products, threats and services everywhere. The media are creating growing avenues for fast communication between protectors and populace. They are also educating the populace on the state of conditions and creating expectations that both fuel demand and create willingness to change.

Internet Penetration

Computer use and Internet access grow exponentially every year. Information of encyclopedic detail can be obtained more and more easily, and complex, sophisticated processes can be used remotely. Access to high-quality communications and sophisticated computer tools are increasingly available to individuals and groups anywhere.

Emerging Technologies

The pace of technological change continues to accelerate, bringing new science to commercial, institutional and industrial uses at an ever quickening pace. Most notable among many fields, major technological innovations can be expected in the new disciplines of molecular nanotechnology, robotics and the biosciences.

New Relationships

Greater public mobility and access to information is changing the nature of association for many individuals and organizations. Organizations that once operated in isolation are now players in a common environment. Sometimes the emerging relationships are competitive, sometimes cooperative. New forms of relationship can be expected and created as conditions evolve.

Project Statement

Using Structured Planning methodology, develop a research agenda that assembles applicable design theory, processes, methods and tools; identifies new research areas for development; and establishes a process for proceeding.

The proposal should:

1. Identify current weaknesses and strengths in design methodology applicable to policy formation at institutional and governmental levels.
2. Match design strengths with policy-making needs to outline kinds of knowledge to be developed and methods to be constructed.
3. Consider styles of advisory process and new forms that could be implemented.

Goals

As general guidelines a Research Initiative for Policy Design Synthesis should:

- Explore a full range of research possibilities, paying especial attention to appropriate technologies and user needs.
- Consider both high- and low-tech tools as they are appropriate.
- Include ideas for content as well as process—including procedures, policies, activities, organizational concepts and relevant relationships among them.
- Explore revolutionary as well as evolutionary ideas.
- Consider the educational process through which the products of the research process are transferred to users.

- Design for all involved in research activities, and provide for them in the plan. Thoroughness is a step toward integrity.
- Consider potential costs and funding thoughtfully; the proposal should not incorporate unnecessary frills, but it should not sacrifice effectiveness for low cost.
- Treat the design problem as design from the inside out; user operational needs come first, with every attempt possible made to satisfy them in some way, even when tough design decisions must be made.
- Conceive the properties and features of the research process as means to build trust and cooperation between research programs and schools—and the governmental and institutional leaders they will support.
- Consider the project as one component of four demonstrating advanced design thinking and showing how it can be extended to decision making at the policy planning level.

Overall, the solution should:

- Assume that the proposal can be acted upon as it is conceived. Do not underpropose on the assumption that a concept might be politically opposed.
- Demonstrate what might be achieved. The value of the proposal is in its ideas, not its certain attainability. Ideas that might not be fully attainable under today's conditions may be incrementally achieved tomorrow—if they are known.

The Structured Planning Process

The semester-long Systems and Systematic Design course is a project-based course in which teams of graduate students, deliberately of mixed international origins and different academic backgrounds, apply the computer-supported Structured Planning process to complex design and planning problems. The goal for each project is to develop information thoroughly, propose innovative solutions that take maximum advantage of the information, and integrate these ideas into system concepts that can both be evaluated in their own right and (in a real situation) be the comprehensive project specifications for a follow-on detail design phase of development.

Course Issues

Complexity. What is the nature of “systems” concepts, where products, processes, services and settings are organized to act together to achieve multiple goals? What can be done to assure that a concept is as complete as possible, covering many functions and attaining a high degree of “wholeness” and organic reliability?

Design and planning methods. What is Structured Planning and how can its tool-kit of methods be used to collect, structure and handle information in projects of greater complexity than can be comfortably dealt with intuitively? How can such methods be used by a team to extend the effectiveness of all?

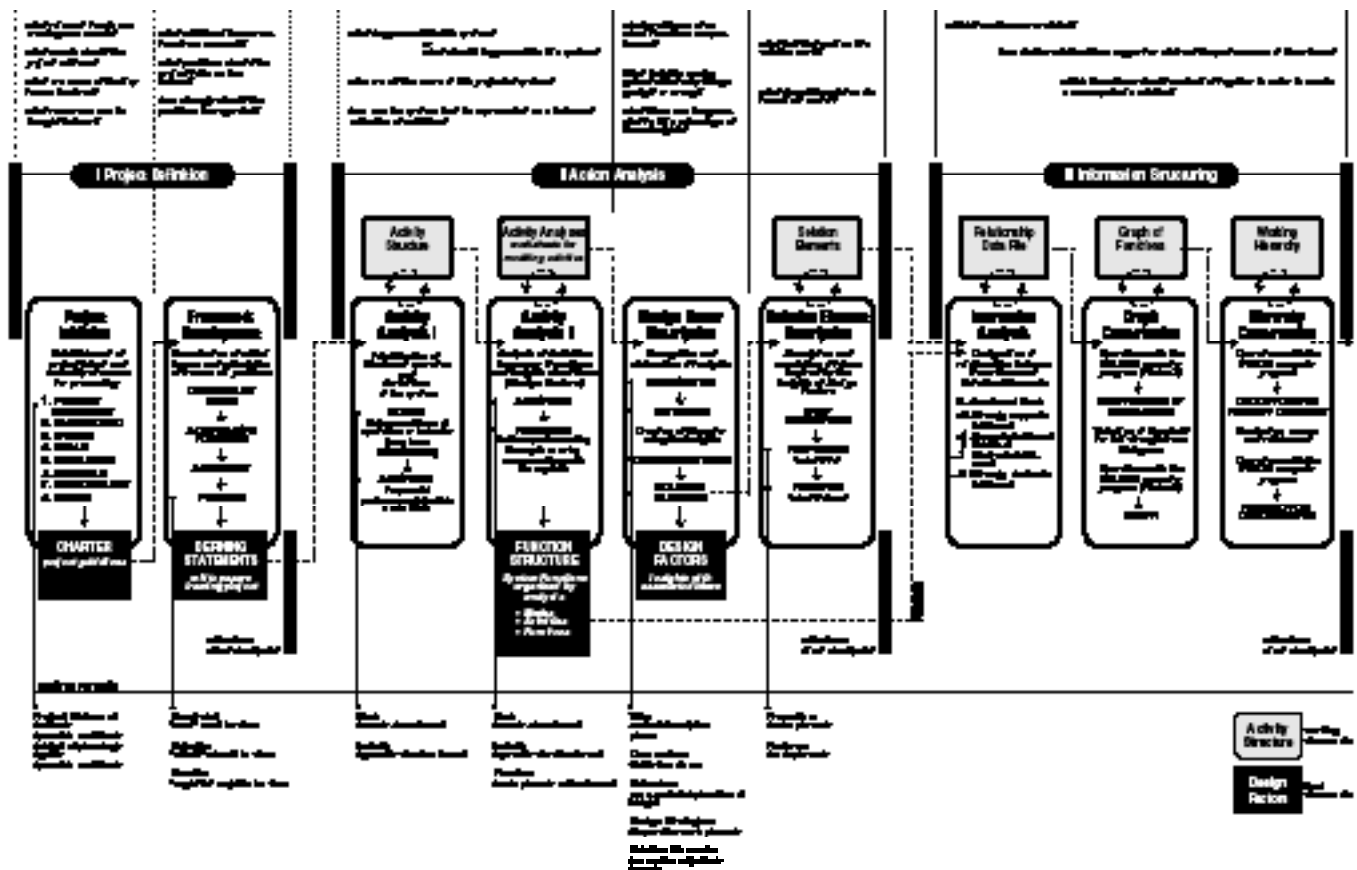
Teamwork. How do individuals with different cultural origins and different academic backgrounds work together successfully on teams? What roles are there to be played and what difficulties must be overcome?

Structured Planning

Structured Planning, the systematic planning process taught in the course, is a process for finding, structuring, using and communicating the information necessary for design and planning activities. It is a front-end process for developing concepts thoroughly and cohesively.

A number of projects have been undertaken with it and used to further its development. Among nearly 100 of these, an early published project for Chicago’s transit authority (CTA) was *Getting Around: Making the City Accessible to Its Residents* (1972). In 1983, the House of the Future project won the Grand Prize in the Japan Design Foundation’s First International Design Competition. In 1985, the design of a habitation module for Space Station was undertaken for NASA. In 1987, the Aquatecture project won the Grand Prize again in the Japan Design Foundation’s Third International Design Competition. In 1991, Project Phoenix on global warming was honored as Environmental Category Grand Winner in *Popular Science* magazine’s “100 Greatest Achievements in Science and Technology” for the year. In 1993, two award winning projects, NanoPlastics and Aerotecture, were widely publicized in Europe and Japan; in 1995, the National Parks project developed plans for the future of the U. S. National Park Service. In 2001, Access to Justice, a project sponsored by the National Center for State Courts, was implemented for use in state courts across the United States, and in 2005, four projects on Home, Play, Work and Health were finalists in four of the five competition categories for Denmark’s INDEX Awards, the world’s richest design prizes. As the process has evolved, it has become an increasingly useful planning tool for products, systems, services, processes and organizations.

A diagram of the process, shown below in two figures, outlines the activities that make up Structured Planning and the working documents and final products that are produced along the way. A general description follows the diagram. Where products of the process are discussed here in the abstract, it is possible to see specific examples produced for this project in the appendices that accompany this report.



I Project Definition

The Structured Planning process begins with Project Initiation and the production of a Charter. This is a “brief” that serves as an initial communication vehicle between client and planners. It contains background, context, basic goals, a project statement that cuts to the heart of the planning task, resources to be used, and an initial set of issues to be investigated.

Defining Statements are mini “white papers” produced in the Framework Development portion of Project Definition. They focus the project within the direction of the Charter, concentrating on the issues and arguing specific directions that the project should follow with regard to them. Together with the Charter, they define the project.

II Action Analysis

Any system can be viewed as a complex entity working with its users in different ways appropriate to its modes of operation. To plan effectively, a planning team must recognize these Modes, identify Activities that occur within them, and isolate the Functions that the users and system are intended to perform within each Activity. The result of the Activity Analyses conducted is a Function Structure.

Half of the purpose of Action Analysis is the enumeration of Functions. The other half is the development of information about these Functions that reveals insight about what happens as they are performed. During Action Analysis, insights are sought about why things go wrong in performing some Functions, and how other Functions manage to be performed well. These insights are uncovered in the Design Factor Description procedure and developed in documents that become part of a qualitative knowledge base. Activity Analyses record information at the Activity level; Design Factors document insights and ideas associated with Functions.

To capture as fully as possible the ideas suggested on Design Factors, Solution Element documents are written in the Solution Element Description portion of Action Analysis. These are one-page documents designed to capture enough detail about ideas to give them substance when they are needed later. They have three important sections: "Description" -- a short explanation, "Properties" -- what the idea is, and Features -- what the idea does. The Solution Element form is the tool used for committing ideas to paper.

The product of Action Analysis is three sets of critical information: a set of Functions (the Function Structure), a set of insights (Design Factors) and a set of preliminary ideas (Solution Elements).

III Information Structuring

Paradoxically, as useful as the Function Structure is for establishing coverage, it is not the best form of organization for developing concepts. Reorganizing information for use in concept development is the job of two computer programs, RELATN and VTCON.

The controlling factor for whether two Functions are associated from the planning standpoint is not whether they are categorically "related" in some manner, but whether a significant number of their potential solutions are of concern to both. Which Solution Elements are of concern to each Function is established in an Interaction Analysis procedure. The RELATN program then uses this information in a Graph Construction process to establish links between Functions.

Another program, VTCON, completes the information structuring process. The graph establishes paths through the Functions by linking them when they are related, but, unlike a road map, a graph is not naturally arranged nicely for visual comprehension. In the Hierarchy Construction activity, VTCON finds clusters of highly interlinked Functions and organizes them into a semi-lattice hierarchy, a very general form of hierarchy most appropriate for planning. The hierarchy is called an Information Structure.

IV Synthesis

In its form from the VTCON program, the Information Structure is simply a hierarchical organization. Nodal points do not have names. The task of Means/Ends Analysis is to create labels for all nodal points in the hierarchy. Moving bottom-up from the known Functions in the bottom level clusters, the question is asked, “To what end are these Functions means?” The answering purpose, in turn is grouped with its sibling nodes and viewed as means to a higher level end. The process continues to a completely labeled Information Structure.

The process is then reversed as a top-down, structured brainstorming procedure: Ends/Meaning Synthesis. In this process, the planning team asks of high level nodes, “what means do we need to meet this end?” As means are established, they are treated in turn as new ends for which means must be found, until the means become concrete enough to be described as final elements of the system (System Elements). Solution Elements originally conceived for the Functions involved are constantly reviewed as possible end products. New ideas, however, are encouraged, and original ideas are modified or combined in the light of the means that evolve.

During Solution Evaluation, features of the System Elements are evaluated for their contribution to fulfillment of Functions in their part of the Information Structure. Unfulfilled Functions are a signal to return to the Ends/Meaning process for additional development.

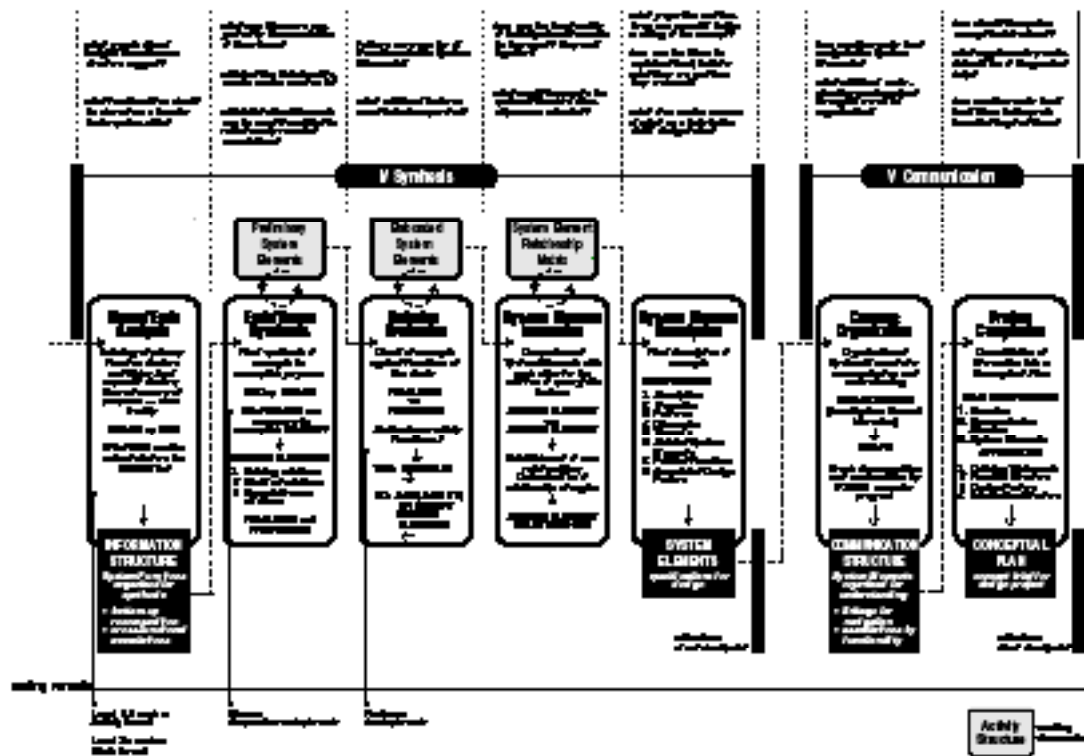
System Element Interaction compares System Element with System Element in a search for additional synergies that can contribute to systemic qualities. More than simply recognizing relationships, the planning team proactively seeks out ways for System Elements to work together -- to the extent of modifying one, the other, or both. Changes are incorporated in the properties and features of the individual System Elements.

The last task, System Element Description, completes the write-up of System Elements as specifications, including a succinct description, all relevant properties and features, and extensive Discussion and Scenario sections that contain detailed expositions of the ideas in both conceptual and operational terms.

V Communication

Because the result of the Structured Planning process is a complex system, usually with a number of System Elements, a Communication Structure is frequently included as an aid to understanding. This is created during Concept Organization by the VTCO program from an assessment of how important the System Elements are to each other's operation. Using this structure, the reader can understand the system and navigate its concepts with greater efficiency.

The product of the Structured Planning process, assembled in the Project Completion section, is a Conceptual Plan, made up of an Overview that provides background and introduces the system, the System Elements that describe the ideas and their relationships, and Appendices that contain all relevant support information, including the Defining Statements, Design Factors, Function Structure and Information Structure.



The Team

The design planning team for this project consisted of five Institute of Design graduate students from: India, the Republic of South Korea, and the United States. Individual members hold degrees in five different fields of design and other disciplines.

Clinton Barth - Team Leader Phase 5
BA Mass Communications
Seton Hall University
(South Orange, NJ)

Hyunjee Jung - Team Leader Phase 4
BS Computer Science
Seoul National University
(Seoul, Republic of Korea)

Derrick Kiker – Team Leader Phase 1
BS Engineering Physics
University of Oklahoma
(Norman, Oklahoma)

Gil-Ock Lee – Team Leader Phase 2
BA Industrial Design
Hong-Ik University
(Seoul, Republic of Korea)

Rishabh Singh – Team Leader Phase 3
BE (Mechanical Engineering)
Pune University
(Pune, India)

Advisor

Charles L. Owen
Distinguished Professor Emeritus
Institute of Design
Illinois Institute of Technology

Overview

“The one who adapts his policy to the times prospers, and likewise that the one whose policy clashes with the demands of the times does not.”

- Niccolo Machiavelli

Design Thinking

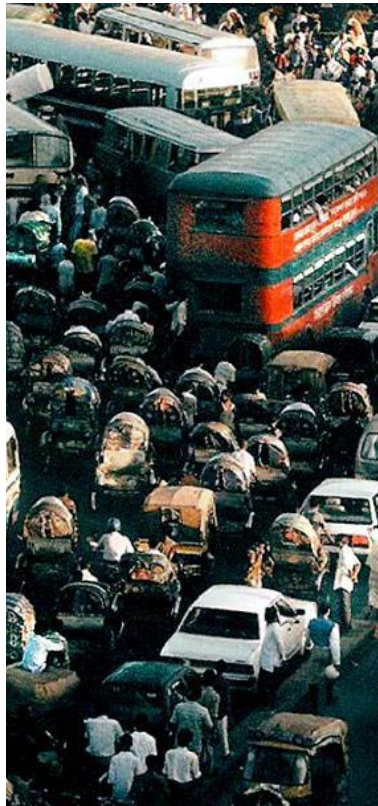
Design makes things visual - probably the only thing unique to design and valuable if working with complex systems or multiple stakeholders.

Design prototypes things in context - both physical and social prototypes, quick and dirty.

Design has the ability to look from the perspective of the individual and to rapidly turn these insights into practical solutions.

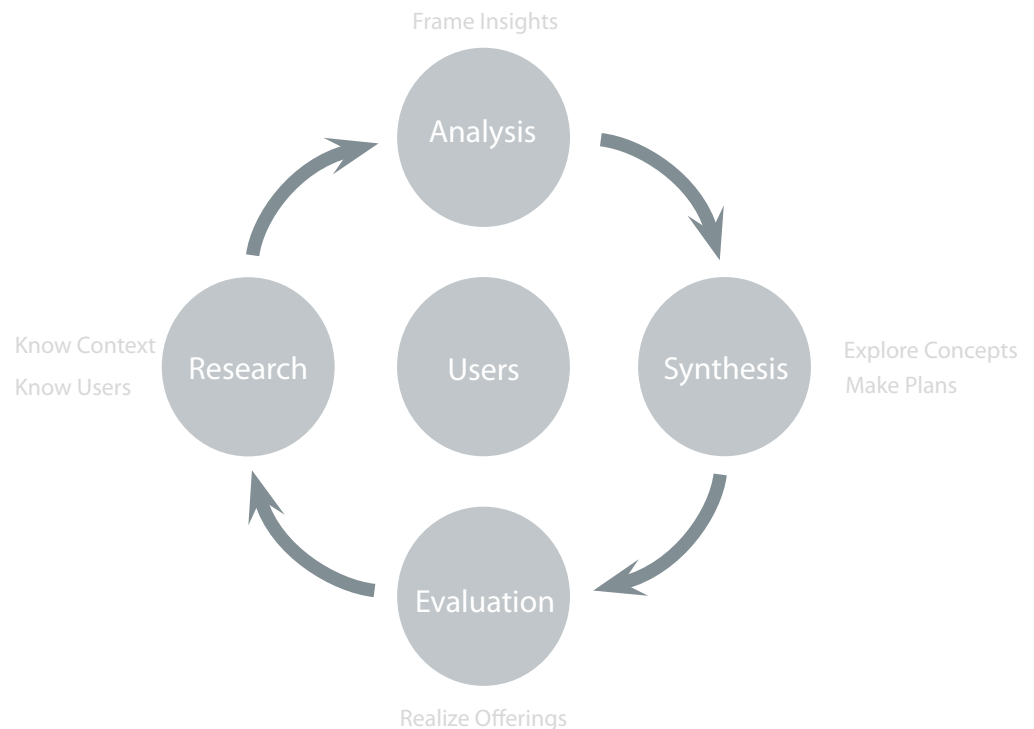
Designers do not have all the answers - but they do have all the questions.

Design thinking can contribute holistic solutions to some of the world's biggest problems.



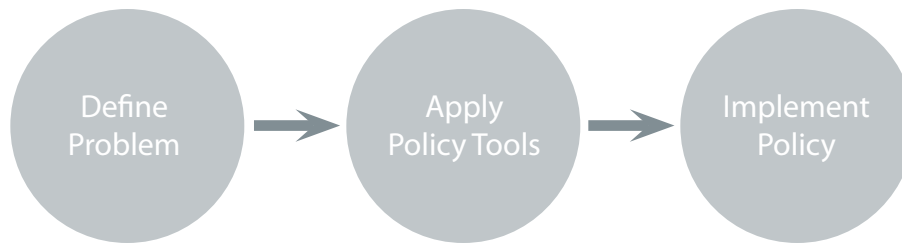
The Design Process

Many different definitions of the “Design Process” exist to support the many types of design in practice today. For our purposes we have chosen a user-centered design process that features iterative prototyping. The four phases of the process are research, analysis, synthesis and evaluation. Key characteristics of this approach are the depth of research into users and context, rapid prototyping and evaluation via usability testing.



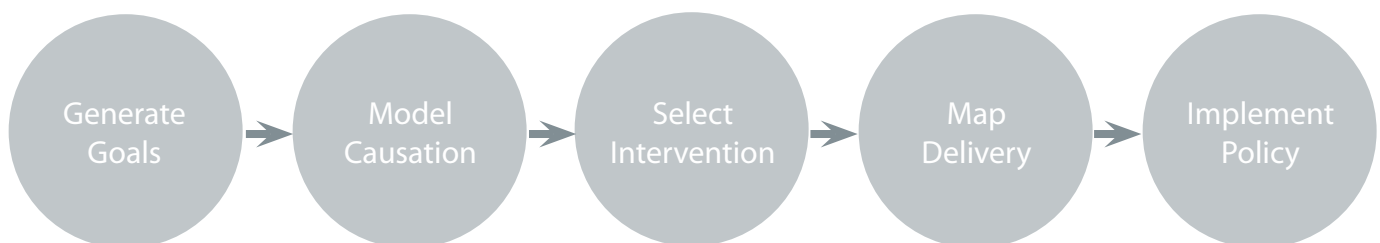
The Policy Making Process

Policy making is a combination of basic decisions, commitments, and actions made by those who hold authority or affect government decisions. The policy-making process involves multiple interests, conflicting information, and human personalities. Often there is no “right” choice or correct technical answer to the issue at hand. The larger and more diverse the constituency, the more difficult policymaking becomes, particularly when addressing regional issues. Traditional policy making has confronted these difficult conditions by relying on prior policy decisions and limitations to guide new efforts. This legacy of policy by precedent often results in policies that are inflexible, mono-functional, and heavy-handed.



Standard Process

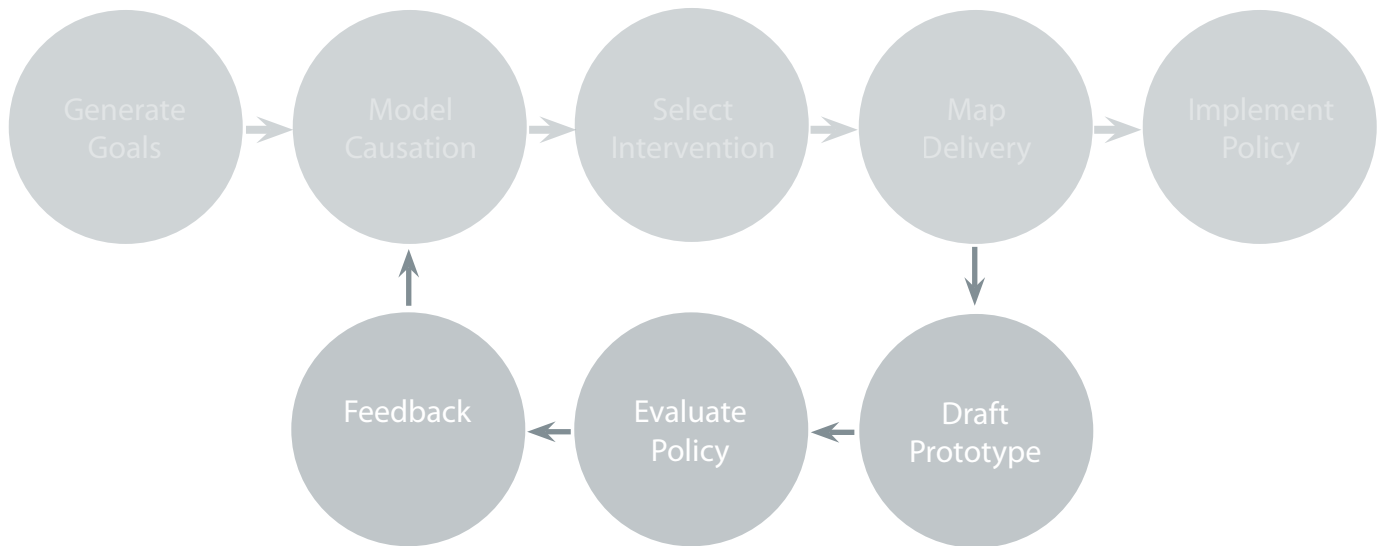
The traditional policy making process begins through definition of the problem. Unfortunately, this part of the process is usually not performed by the policy making team. It is said that the person with the most power is the person who defines a problem. Because of this, the race to define a problem is hotly contested by the various groups vying for political power and is usually played out in the media. Because the problem statement is politically motivated and often flawed, the potential to develop an effective policy is limited. The next step in development is for the policy making team to select policy tools. Policy tools are elements of a policy that attempt to change the behavior of the policy's target. Examples of policy tools include taxes, incarceration, grants, etc. Tool selection is also affected by rigid traditions for what tools can be used to address each type of problem. The final phase of the process is implementation. Many well designed policies fail at this stage because the policy making process was not transparent. Ineffective communication with those responsible for implementing the policy and a failure to build grassroots support result in the policy's failure to effect change.



Improved Process

Academic efforts in policy theory have resulted in a new model for the policy process that addresses many of the aforementioned problems. The first step in the improved process is generating goals. Before a solution can be generated, the policy writer must commit to a definition of success by asking questions. Can the problem be eliminated entirely or only ameliorated? If the problem cannot be sufficiently assuaged can individual effects of the problem be addressed separately? Armed with answers to these questions, the policy making team selects a goal for the policy to achieve.

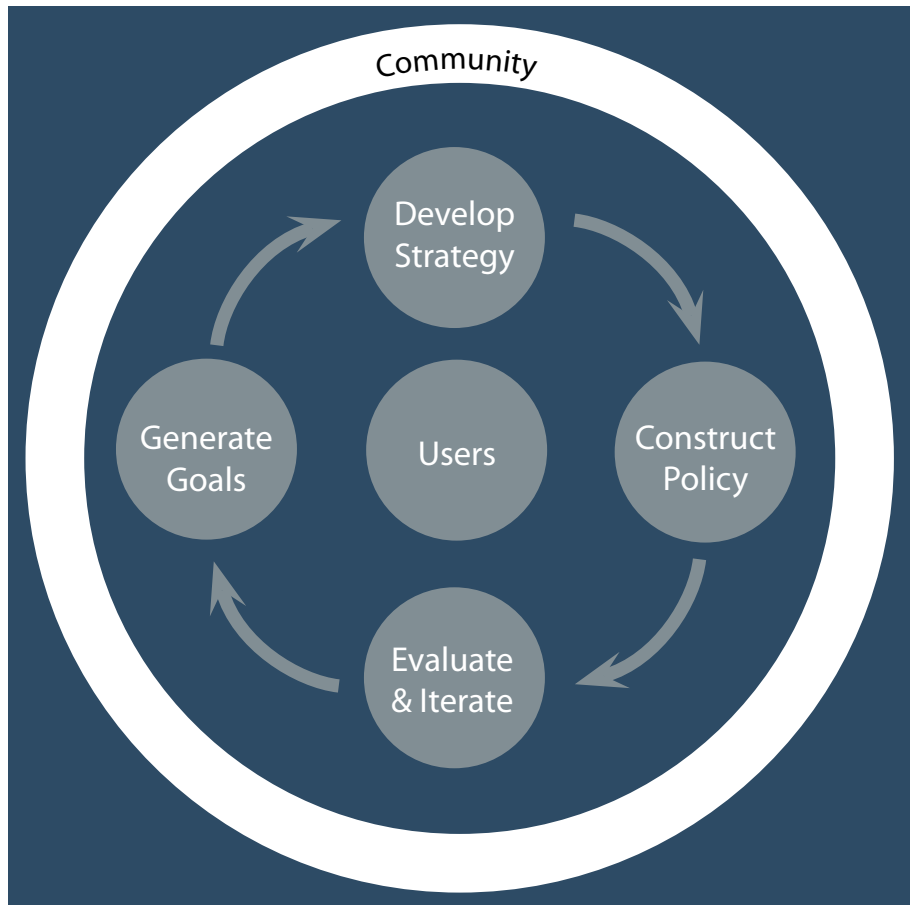
Next, the team must model the causation of the problem by determining all of the causes for the problem and determining which ones are critical. Once the critical causes have been identified, the policy maker must select interventions that can effectively break the link between the problem and its cause. A delivery system for the policy is then selected which determines the level at which detailed aspects of the policy will be prescribed (limits, fines, etc.). Finally, an implementation plan is developed to facilitate effective communication and cooperation with local authorities.



Through the addition of an iterative process that incorporates user centered evaluation, ideating techniques, and other valuable design tools, a new policy making process can develop policy that is more adaptable, holistic, and effective.

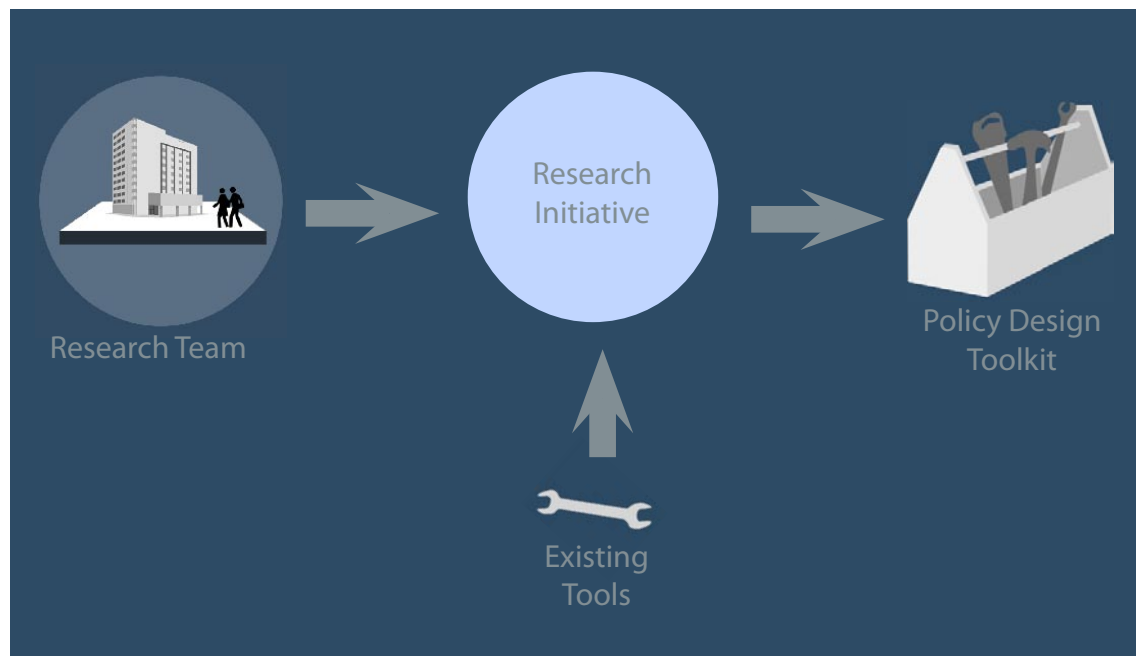
Transformational Design

The idea of using human centered design principles to reconfigure government is relatively new. Leaders in the field such as the Design Council's "Red" group have taken to calling the work transformational design. The transformational design principle is concerned with ensuring that all tools, structures, and processes are optimized for continually meeting the user communities evolving learning needs and aspirations. Our model for transformational design is an iterative process of generating goals, developing strategies, constructing policies and evaluating. The process is centered on users and is surrounded by a supportive community.

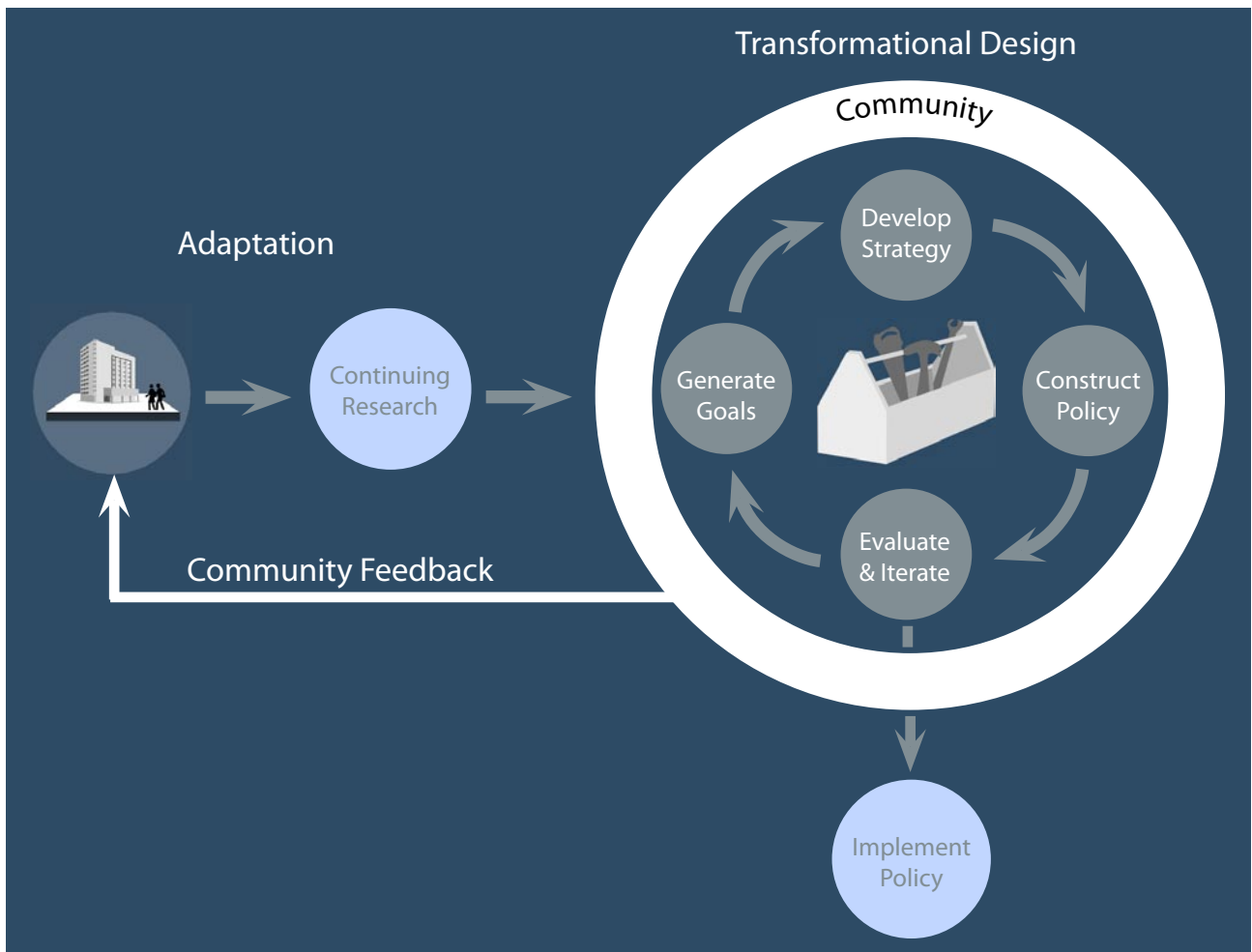


The Research Initiative

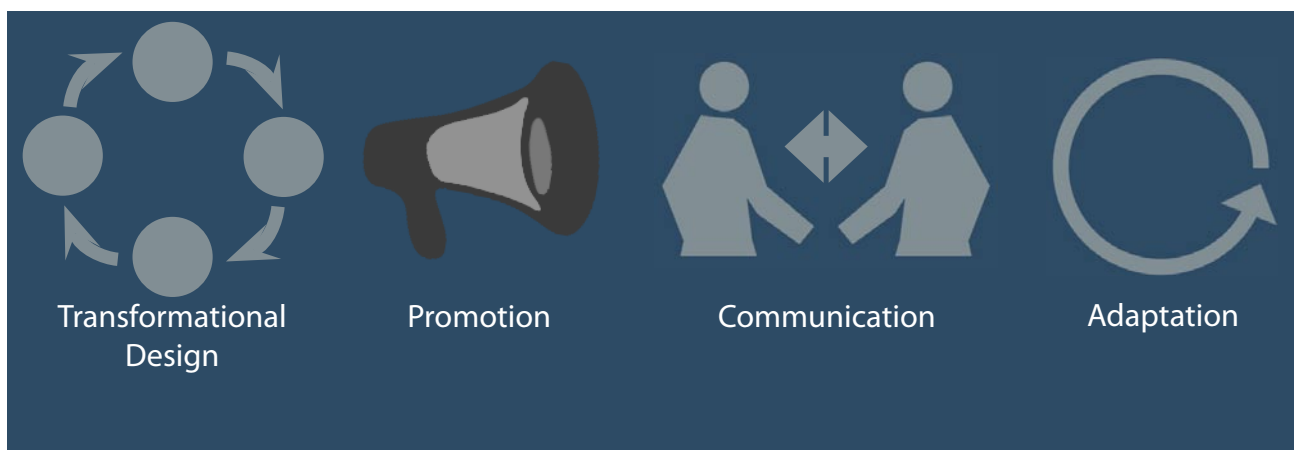
To enable the transformational design process, a mix of design tools and thinking and tools and thinking from other fields will have to be assembled to create what we call a policy design toolkit. A research team of graduate students lead by respected member of the design community could be formed to populate the toolkit using the guidance of this study and the insight developed through their own research.



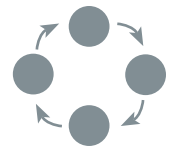
After the initial version of the policy design toolkit is released, the research team becomes the core of the adaptation process. Through continued research and evaluation of feedback from the user community, new tools can be developed that more effectively address policy design problems and enhance the value that design thinking brings to the policy making process.



To guide the research team we have composed a number of system elements. These ideas fall into four major categories: elements of the transformation design process, elements involved in the promotion of the synthesized policies and the use of the toolkit, elements supporting the adaptation of the toolkit and elements that foster improved communications and community. Each element should somehow improve the policy design process. To test the value of these ideas, each system element has been scored for its potential contribution to making the policy design process more adaptable, clear, collaborative, integrated, informed and organized.



System Elements



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Any type of protocol is useful in an organization where accuracy and completeness hold high importance. This need is multiplied when people from different arenas are brought together to use tools they may be unfamiliar with. A protocol is used to provide a general overview of the process, as well as establish a standard procedure in order to mitigate confusion and disagreement while maximizing effectiveness and efficiency.

The Policy Protocol consists of three sections. 1) A high-level overview of the design process 2) A list of generally used methods for research, prototyping and evaluation 3) Standardized forms for the creation of policy drafts and iterations.

The process overview is used to ensure that everyone at the table shares an understanding to keep everyone aligned and moving in the same direction. When bringing the very different worlds of policy and design together, there is a possibility of distrust between the parties. Policy designers are likely to be uncomfortable with the notion of "design thinking," and could feel that the designers are dictating the process, rather than working with the policy makers. The process overview is designed to mitigate this in at least three ways.

One, all of the members of the policy design team will have access to the design overview before the project begins so that they may familiarize themselves with the design process. This way, they will not be going into the process blindly, but rather with an understanding of the steps, goals and processes involved. This will increase the level of trust between the parties, as well as give policy makers a more level playing field and the ability to contribute using some basic design methods from the beginning.

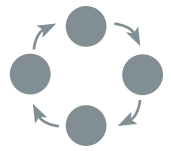
Secondly, the process overview will provide a starting point for all projects so that the teams may hit the ground running rather than spending valuable time trying to determine a starting point.

Finally, the overview will serve the function of keeping everybody aligned and on the same page. Again, because this process will be new to many of the team members, the overview will let them know where they are in the process and what steps are ahead. By showing the destination and the process for getting there, policy makers will be less hesitant about embracing the concepts of design thinking.

The second main facet of the Policy Protocol is a list of the generally used methods and practices for conducting research and iterative prototyping to be used in conjunction with the **Tool Archive**. The Policy Design Toolkit as a whole will offer a large variety and number of design tools. The Policy Protocol will be used to help both designers and policy makers quickly determine what tools are available for each phase of the process. The list will not be exhaustive or prescriptive, but it will function as a starting point for more experienced designers, or a guide for the less experienced.

This list also includes a detailed description of the tools and processes used in the evaluation process. The purpose here is to be prescriptive. In order to guarantee a thorough evaluation process, the protocol will outline all of the steps and processes that must be performed. This will work as an introduction to the complete evaluation process for the policy makers, while also acting as a checklist of required functions for more seasoned designers.

The final function of the Policy Protocol is to provide a standard documentation protocol for the creation of an initial draft of the policy. This protocol will ensure that the policy draft contains all the required sections, and uses the correct terminology.



Scenario

A new team has been assembled to create a policy. They are all given copies of the Policy Protocol to review before their first meeting so that they have a common understanding of the starting place of the process. Once they convene, they follow the steps outlined in the protocol to help ensure that they have a complete process and no steps or possible avenues of exploration are missed.

A disagreement surfaces concerning the right way to proceed at a particular juncture. The designers and policy makers aren't able to settle the disagreement themselves, so they consult the Policy Protocol for guidance. The Protocol is able to illustrate where they stand in the process, and what steps are ahead of them. The team is able to re-align themselves in the proper direction and continue.

Further along, the team reaches a problem that they are not able to work out using any of their usual design or policy making tools. They consult the protocol again and find another possible tool that they could use. After consulting the Tool Archive for a more complete explanation of the tools use, they are able to work out the problem and move forward.

After their policy has been created, they use the evaluation checklist from the protocol to perform a structured evaluation of the policy. Using the checklist ensures that the team does a thorough evaluation of the policy.

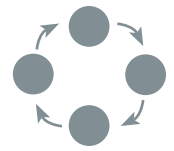
After the policy has been designed and evaluated, the team follows the documentation guidelines laid out in the Policy Protocol to create the initial draft of their policy. Subsequent revisions are also created using these guidelines.



System Element

Transformation Design

Solution Engine



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

The first step in the policy making process is establishing goals for the policy to accomplish. Before a solution can be generated, the policy writer must commit to a definition of success by asking questions. Can the problem be eliminated entirely or only ameliorated? If the problem cannot be sufficiently assuaged can individual effects of the problem be addressed separately? Armed with answers to these questions, the policy writer must select a strategy.

The Solution Engine is a framework for selecting the best approach to solving a given policy problem. To ensure the policy making team has sufficient background information to develop a strategy, the solution engine includes a rapid research template. This template makes the background research phase of policy making more efficient by providing a list of important questions that should be answered and pointing researchers toward standard resources. The solution engine then provides a set of design and business frameworks to evaluate the background information and develop an effective strategy for the policy.

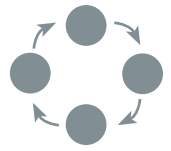
Scenario

A design led team is presented with a serious issue to construct a policy for. The policy design toolkit recommends stepping through the solution engine tool set to develop a strategy for the policy. The team uses the research template to quickly gather the background information that they will need to continue. Next the team works through a framework designed to assist the team in setting a reasonable goal. They realize quickly that elimination of the problem in its entirety is not economically feasible. Several more reasonable options are quickly debated and a decision is made. The team knows that a quick decision at this point is not a concern because the iterative process will allow them to revisit this decision after the first prototype policy is drafted.

System Element

Transformational Design

Causation Analysis



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Philosophers have long struggled with the concept of causation or the set of all cause and effect relationships. Most generally, causation is studied by examining relationships between events, objects and states of affairs. Causation is also a notoriously difficult area of policy design. Many policy failures can be directly attributed to a lack of a "causal relationship" between the action of the policy and the problem it is intended to solve.

The causation analysis process is a series of steps designed to identify and prioritize the causes associated with a problem. Using specific tools, causation analysis works through identifying key relationships, questioning current attribution models, and ranking causes using probabilistic analysis.

Scenario

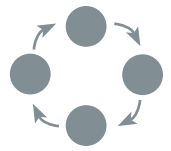
A design led commission is asked to develop a policy. The problem has been addressed by several failed policies in the past. Past failures have generally been attempts to attack the same presupposed cause.

The commission is first tempted to use prior policy as a starting point and change how the policy is implemented in order to achieve results. The design leader suggests using the causation analysis process first to verify that the team is headed in the correct direction. The team begins by using a series of tools designed to reveal relationships and find common intersections. Working from this better understanding of the variables and players, current attribution models are questioned using simple tools borrowed from philosophy such as counterfactual statements. Current attributions that are found lacking are discarded and new models are synthesized based on relationship data. The team then uses a software tool to conduct probabilistic analysis to rate the different hypothesized causations and determine the ones that warrant taking action. The team now begins constructing a policy that uses an entirely different approach in countering the problem.

System Element

Transformation Design

Intervention Mapper



Adaptable



Clear



Collaborative



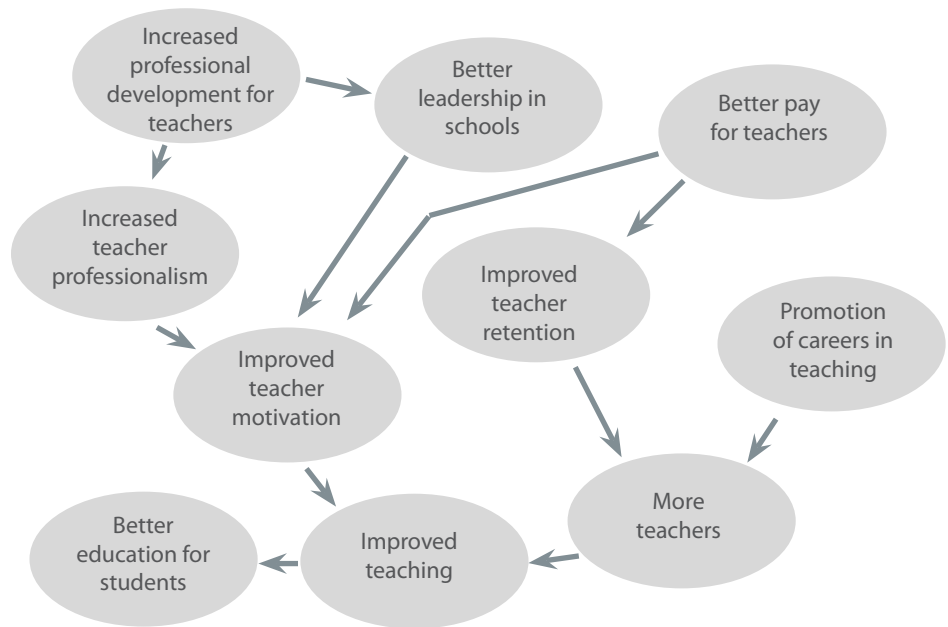
Integrated



Informed



Organized



Discussion

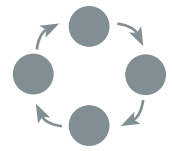
After pinpointing the cause of the problem to be addressed, the next step in developing an effective policy is choosing an appropriate intervention strategy. An intervention is a point where the link between cause and effect can be severed. A good intervention will effectively control the problem, have relatively few side effects, and lend itself to easy implementation.

Intervention mapper is a framework with tools to generate, evaluate and select interventions for a policy being designed. Using the output of the causation analysis process as a starting point, ideating tools help the policy making team to populate a list of potential interventions. Frameworks to evaluate these interventions are then used to select an appropriate intervention strategy for the policy.

Scenario

An advisory group composed of designers is commissioned to develop a policy. After applying causation analysis tools, the commission agrees to use the intervention mapper framework to select a strategy.

Using the causes identified earlier, the commission produces a list of potential interventions using tailored ideating methods. Research results show what interventions have been applied for similar causes in the past and how those efforts fared. A framework to evaluate the interventions is applied and the top interventions are considered for development. After consulting experts and weighing political feasibility, an intervention strategy is chosen for the prototype strategy.



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

“Effective policy making must be a learning process which involves finding out from experience what works and what does not and making sure that others can learn from it too. This means that new policies must have evaluation of their effectiveness built into them from the start” Cabinet Office, Government of UK.

Policies are formulated by the administration to address issues affecting the majority of the organization. In most cases, any changes in the administration leads to the formulation of a new set of policies, without any emphasis on the measure of success of either the earlier policies or the measure of performance on the existing ones.

Evaluation is important for determining the extent to which a policy has met or is meeting its objectives and that those intended to benefit have done so’.

The Policy design scorecard is a system that helps policy makers to make assessments on the success and the performance of policies. It uses a range of methods to systematically investigate the effectiveness of policy interventions, implementation and processes, and to determine their merit, worth, or value in terms of improving conditions of different stakeholders.

The establishment of a performance metric for policy evaluation would have the following potential benefits:

1. Assessment of the absolute performance of the initiative (quantitative and qualitative) over a given time period of time.
2. Assessment of Relative measure of the performance (with respect to earlier policies)
3. Identification of areas or parts of the policy that were successful or that failed completely.
4. Tracking of the trends in the performance over a period of time.

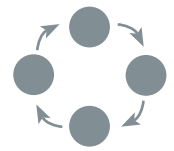
The policy design scorecard evaluates policies through a triangulated strategy approach, by using tools and methods for quantitative evaluation, qualitative evaluation and also secondary analysis on the previous evaluations of the policy. The following are the basic steps followed by the scorecard for a systematic policy analysis and evaluation.

Problem Identification -- finding the public interests and issues involved
Criteria Selection -- determining what criteria to evaluate the policy on
System Assessment -- analysis of boundaries, feedback, and power dynamics
Strategies and Tactics -- examining decision-making and delivery mechanisms
Feasibility Assessment -- formulation and implementation analysis

Much emphasis is laid on the following issues for developing assessment criteria

1. Evaluation of effectiveness of the policy or initiative
2. Assessment of the timeliness of the policy
3. Assessment of the costs and the optimization levels for resource allocation involved in the implementation.
4. Assessment of the equality and the equity of the policy
5. The adaptability of the policy to accommodate changes in the future
6. Weighing visibility
7. Assessing Political feasibility
8. Evaluating unintended outcomes

Some of the desirable attributes to be incorporated in the development of the metrics



Scenario

The Australian Institute of Health and Welfare (AIHW) has been planning to develop a policy for fight Obesity. Obesity has now become one of the biggest challenges in the medical and the health care industry. And because obesity rates are highest among people aged 45-64 yrs, it follows that obesity is also be affecting aspects of productivity and workforce participation in the workforce.

The AIHW has been using the policy design toolkit for applying design thinking to this deep and complex problem. Once the basic prototype of the policy has been constructed, the policy prototype needs to be evaluated for the degree of its success. The policy score card is a very important tool in this regard. It helps the prototype to be evaluated on a four level process by using both qualitative and quantitative tools. This would help AIHW to review the developed model in terms of its absolute and relative performance but would also help to identify trends in the earlier policies, which have either been very successful or failures. After the policy is evaluated by the policy score card, it will follow an iterative prototyping method till the final prototype achieves the intended performance and its intent.

tools are:

Meaningful: Metrics should be a measure of authentic progress toward a predefined objective or goal. The metrics should address topics that the intended audience, internal or external, cares about. The first step in any evaluation should be to identify the purpose of the metrics and the audience for which they are being computed.

Accurate: Metrics should represent a collection of information that accurately measures how the program is doing. Inaccurate, meaningless, misleading, or irrelevant metrics can seriously skew a program's performance, inducing it to emphasize accomplishments that look good in the context of the evaluation but are irrelevant to or even inconsistent with the program's true goals.

Simple: Metrics should be expressed in simple and concise terms, so that the audience clearly understands what is being measured and what the results of the measurement are. They should be unambiguous and easy to compute in an objective manner, with a reasonable amount of effort, and using readily available data.

Comparative: Metrics should be capable of direct comparison to other individuals or institutions to determine relative achievements. They should be able to be computed using readily available data in an unambiguous, transparent way so that other individuals or organizations can understand and replicate the process.

Discriminating: Differences between institutions or changes in the metrics over time should be meaningful.

Integrated: Metrics should provide a coherent picture of the program being evaluated. The focus should be on performance baselines and goals that provide a comprehensive recognition of accomplishments, gaps, and weaknesses.

Outcome-oriented: Although some metrics focus on process, the metrics should also focus on the desired outcomes and results, not just the completion of tasks.

Consistent: The same metrics should be used to evaluate comparable programs or the same program over time.

Cost effective: Program evaluations can be expensive, time consuming, and disruptive. The benefits of the information gathered should be commensurate with the cost required to collect it.

Unbiased: the tools should enable representation of all the stakeholders and their points of view using both quantitative and qualitative methods.

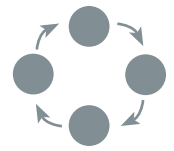
Appropriately timed: For an evaluation to be useful and relevant, the information has to be up to date. Evaluations should be timed to ensure that the results will be based on current information.

Statistically significant: Quantitative metrics should measure what many individuals and institutions do and not only not rare achievements or events and they should have a small margin of error and little temporal variability.

System Element

Transformation Design

PublicOpinion.org



Adaptable



Clear



Collaborative



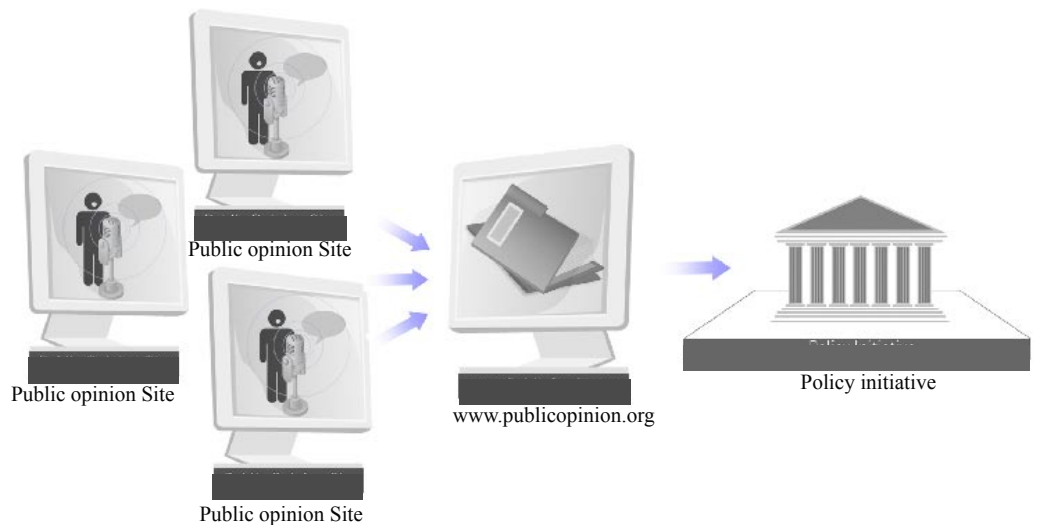
Integrated



Informed



Organized



Discussion

In order to estimate the political feasibility of policy initiatives, an accurate gage of public sentiment on the underlying issue is essential. This information is usually available via the web sites of various polling organizations and public opinion research groups, but finding the specific data that is needed can be an exhausting process. Most polling sites only host data from their own polls and some sites have a partisan slant that limits what data they provide.

PublicOpinion.org consolidates the data from the various public opinion sites in one easily searchable index. For a given policy area several studies looking at the same questions can be accessed, allowing the policy making team to put together the most accurate picture possible. PublicOpinion.org can also conduct it's own surveys to gather feedback on specific policy initiatives.

Scenario

The policy making team has generated goals for the policy and analyzed all the modes of causation. Several interventions have been mapped out, but no clear favorite stands out. Among the other factors being considered, each intervention must be graded on its political feasibility. The team needs a reliable source for public opinion to make these judgements.

Consulting PublicOpinion.org, the team finds four different polls taken by different organizations over the last five years. The site scores the validity of the data above average for all but one poll. The policy making team now has an accurate gage of public sentiment and a trend in data over time

System Element

Promotions

Litigation Team



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

The Litigation Team is a group of lawyers hired on a case-by-case basis to help give our policy a venue to be heard. Their job is to leverage the laws and practices of policy making as a strategy for gaining exposure and support. The main ways they would do this is by bringing litigation to force change, providing witness to gain support and credibility, and to develop a strong network with the key players in the court system.

The first way to provide a policy with a venue is to bring litigation against a government or organization. This often has the effect of bringing immediate attention to the policy at hand, and can even force an unwilling party to accept a new policy against their will.

An example of this was Brown v. Board of Education. In order to create change in the country's civil rights policies, a suit was brought against the Board of Education suing for equal rights. In this way, the matter of equal rights for African-Americans was immediately thrust into the spotlight and eventually created a huge shift in the country's civil rights policies. (Birkland).

In order for this strategy to be used effectively, the litigator must have a strong suit to bring to court. If the case is weak, it will have little effect aside from destroying the credibility of the new policy and its proponents.

A strong case will not only have the power to bring attention to the proposed changes, but could also ultimately be responsible for making the changes law. For this reason, bringing suit is one of the most powerful and direct ways to effect policy. It is the Litigation Team's responsibility to find the proper case for which to bring suit and give the new policy a venue.

Another powerful way to provide a venue for a policy is to provide witness or expertise to a case or on a commission. Acting as a witness provides the opportunity to make concerns about an existing policy heard or to announce the development of a new policy. Depending on the situation, this can be a very effective strategy. The Litigation Team is used to determine when and where this strategy can be used most effectively. Some of the variables used to determine this are case matter, case venue, and participants and/or organizations involved. The Litigation Team searches for a favorable or sympathetic combination of these variables to provide a strong public venue.

Providing witness is also a way to gain credibility. When a person provides witness, they generally become to be considered an authority on the subject at hand. For example, if a member of the Design Policy Initiative were to provide testimony in a case involving policy, they would then be considered an expert on the subject. This expert status brings credibility to the initiative itself, as the witness was acting as a representative.

The final role of the Litigation Team is to develop and monitor relationships with and between the courts. By monitoring judges, lawyers and policy makers, the Litigation Team is able to determine who might be sympathetic to our causes and who isn't. This will help when trying to get new policy heard by allowing the policy designers to target friendly venues and avoid opposition when possible.

System Element

Promotions

Litigation Team



Scenario

A policy has been drafted, but the policy designers have been unsuccessful in creating support for it. The policy is handed over to the Litigation Team for assistance in gaining exposure for the policy.

Their first objective is to find a venue for the policy by providing expertise on a commission or at trial. The Litigation Team looks for related trials or commissions where the Policy Designers could lend their expertise and introduce the policy. Using the courts or commissions to bring the idea to the public allows the idea to be heard and helps to create support.

If this strategy is ineffective, the Litigation Team can instead try to force the issue by bringing a suit against the organization or people who the policy is meant to effect. The Litigation Team finds a proper case in which to bring suit. If a case is not immediately apparent, they may alter the language of the policy so that it applies more accurately to the target organization. Once they have found a target organization and have created the proper language in which to create a case, they file a suit in the hopes that the courts will side with the policy and force change to occur.

In order to increase the chance of the courts siding with the policy, the Litigation Team keeps detailed information on the history of venues, judges and opposing lawyers to determine the most favorable conditions to bring the case. A combination of proper case, proper language and favorable arena will combine to provide the best chance of the policy gaining approval.



System Element

Promotions

Media Relations



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Media Relations works to gain and maintain a favorable public profile with governments and institutions. Through various media, the latest developments and status of the toolkit will be broadcasted.

Also in order to attract individuals and organizations to develop and use the toolkit, the public must be able to attain knowledge about the toolkit. Through the Newsletter, Magazine, and Website, information about the toolkit will be easily assessible.

The Newsletter will provide the latest news and features of periodic updates to the toolkit and toolkit maintenance related articles. New uses and modified uses of the toolkit will also be shown here.

The Magazine will be published less frequently, semi annually or quaterly, and will contain new innovations and trends in in the design/policy making world. Possible alliances with other design and/ or magazines are possible.

Conferences will be held annually and the

main focus will be to increase paricipation in the design/policy making community. A chance to network will be an added incentive.

The introduction page and the page describing the website will be part of media relations.

Open house is a way of recruiting potential employees and alliances for the toolkit. This is also a way of building up the reputation and showing what the toolkit is actually about through tours and presentations.

The Website is the primary medium to access information about the toolkit online.



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

The success of the initiative to encourage design thinking for policy making can be truly realized only when it becomes a global effort. Partnering and forming alliances with relevant institutions would be greatly instrumental in this regard.

Negotiation is often associated with the strategic posturing of the needs and demands of each of the participating members of the alliance. In this process, participants bring their goals to a bargaining table, strategically share information, and search for alternatives which are mutually beneficial. It is also one of the most important activities in trying to establish successful partnerships and alliances. Negotiation, in creating alliances with the prospective toolkit partners would involve activities in the following areas:

1. Establishing connection with the prospective toolkit partner institution
2. Persuading the selected partners for initiating discussion for partnerships
3. Establishing collaborative roles.
4. Maintaining the partnerships.

The toolkit would provide strategic advice on when to generate new solutions and when to persuade others; moreover, on the advice on the use a specific set of techniques for coordinating interactions, generating resolutions, and deriving agreements.

1. Tools and techniques for effective communication of plans and intent of the partnership and also what each stands to gain for it.

Before entering into discussions with a potential partner, one should develop a clear understanding of the aims, constraints, and position in the alliances and develop a strategy for the initial stage of negotiations

2. Tools for dealing with conflict

Without negotiations tools and techniques the partners often get fixed in getting the others to agree upon some ready and fixed ideas

3. Developing implementation plans.

The partners collaboratively need to plan for the transfer of the knowledge and also the other steps in the process.

4. Relationship success evaluation tool

For auditing the health and quality of relationships

There is also a need to establish an agreement on the parameters and metrics for evaluating the contribution and performance of each of the stakeholders in the alliance

5. For addressing the needs for future amendments

The goal of the negotiation toolkit is to tackle the tough issues while laying the foundation for a constructive and amicable relationship between the partners.

It is important to ensure that the agreement leads to an operational alliance and that the partners learn from the negotiation experience. Hence the toolkit must also incorporate features that enable the archiving of the negotiation strategies for all contexts which can be referred to at a later point in time. This would not only help to capture the efforts and the strategies of the past endeavors but would also help in learning patterns in negotiation strategies and tactics.

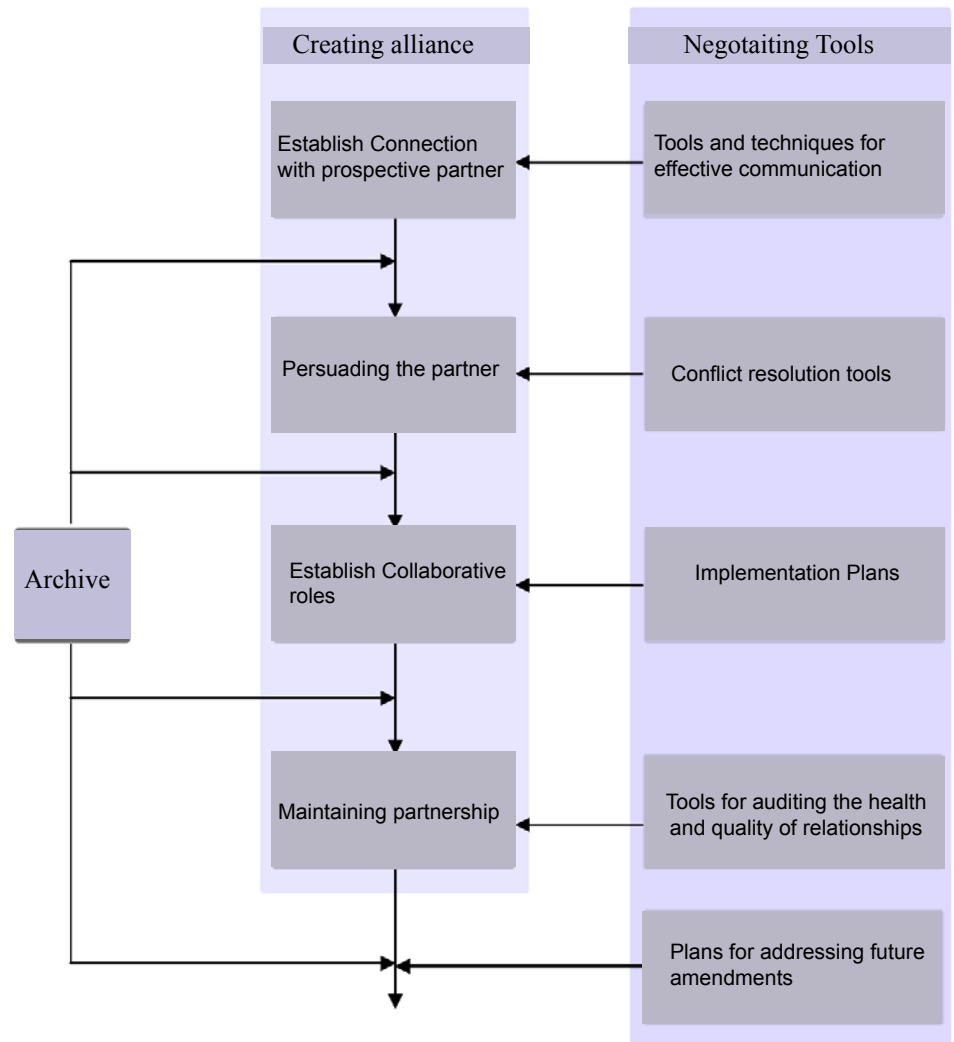


Scenario

Japan External Trade organization (JETRO) places high priority in the development of competencies and technologies for the future. Biotechnology has been highlighted as one of the major focus areas in its policy for the future developments in science and technology. It as been seeking partners to forge strategic alliances in the joint research and development programs in the fields of ‘cell therapy’. They have identified US based, Lymphotic Inc as a prospective partners. They are seeking alliance for joint development of Genome based drugs at the research labs of their US partner.

JETRO has recently adopted the Policy design toolkit and is expecting to use it in negotiating to create an alliance. Firstly, the negotiation tools of the policy design toolkit help JETRO in developing a clear and effective communication strategy in establishing talks with Lymphotic.

During the talks Lymphotic were adamant on the partial knowledge transfer as a condition of the alliance , where as JETRO wanted it engineers to be present in all processes in the development. Here the conflict resolution tools in the negotiation toolset helped JETRO to persuade Lymphotic to allow the presence of JETRO engineers during not all but some of the process even research stage. Once the consensus was reached between the two parties, it was necessary to establish the actual process of the alliance. The implementation plans tools allowed JETRO to establish the blueprint for the technology transfers. This again allowed JETRO to take the initiative and control of the process.



In order to maintain the alliance it is important to evaluate the quality of the relationships from time to time. It is going to be the end of the first phase of the three year alliance period. The partnership success auditing tool has enabled JETRO management to evaluate the gain they have had in partnering with Lymphotic Inc an they are planning extend the contract for another development cycle. The Future Amendments tool would be particularly helpful to JETRO in renegotiating the alliance. Hence the toolkit presents itself as a crucial tool for creating alliances and maintaining partnerships.



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Research for design synthesis is essentially an initiative towards the creation of a toolkit to enable the use of design thinking in the process of policy design and formulation. An important aspect of this initiative is the acceptance and popularity of this method within the policy maker's community. This can be done by globalizing the toolkit for use not only in different types of organization but also different countries and governments. This also gives the toolkit a chance to prove itself in different scenarios. Hence exploring partnerships and creating alliances becomes an important mode of this project.

The first component is the 'Policy monitor'. It helps to generate a list of probable partners for alliances. It is a comprehensive online database which constantly searches the policy trends within the local and global domains. It also keeps a close tab on the latest developments in the design and implementation of policies around the world. This tool uses a dynamic mapping algorithm that not only helps to understand the present scenarios of policy design but also in predicting the future trends in policy design, formulation and implementation.

The initial list is prepared by the first tool, in order to choose between the probable partners, it is necessary to get a better understanding of each of them. The second tool 'Ishikawa analysis' (fishbone diagram) helps in attaining a better understanding of the policy formulation and implementation process of the partners. This tool helps in the graphical representation of the policy formulation structure in a clear and concise manner. More importantly it helps in determining the 'cause-effect' relationships within the structure. It also helps to identify critical areas within the structure, where the application of innovative ideas and design thinking could prove beneficial.

Policies affect a lot of variables in the system, or better said a lot of variables influence the decision making in policy design. Hence after the structural analysis of the institution it is also very important to understand the external factor affecting the system.

PESTEL ANALYSIS

PESTEL analysis is an effective tool in this regard. It breaks down the external factors into a framework of Political, Economic, Social, Technological, Environmental and Legal issues. Each of these factors plays a crucial role in understanding the totality of system dynamic for policy formulation.

Partner Fit is a tool which helps to evaluate the compatibility of the partners for the application of the toolkit. It does so by identifying the areas or problems within the partner structure where the tool kit can be applicable and effective the most in terms of providing design thinking to the problems of policy design. The tool maps the individual modules of the toolkit flow on the Ishikawa analysis of the partner. This tool is also helpful in further organizing the list of the partners by according to the areas of application and would also enable the selection of partners based on new areas of application rather than proving the toolkit effectiveness in already proven areas.

Finally the 'Relationship Mapper' helps to evaluate the feasibility of the execution of the alliance. It enables the mapping of an initial implementation plan for the partnership. It helps to identify the resources that need to be allocated for the knowledge transfer within the partnership along a common axis of time. It further refines the list of the probable partners based on these analyses. Further this tool could also be used to make blueprints for future alliances with the same partner.



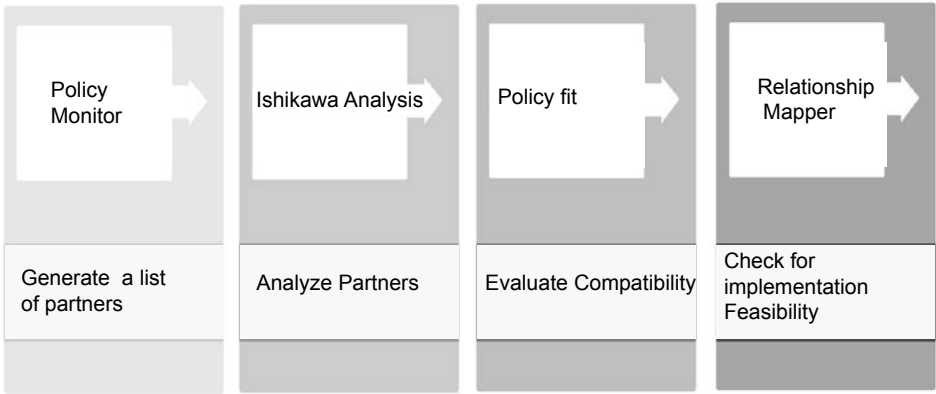
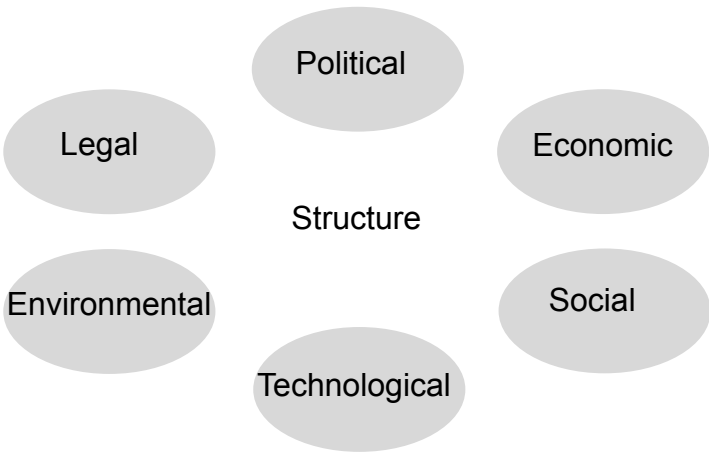
Scenario

Policies have long focused on promoting education and literacy. Once an area of concern like ‘continuing education for the adults’ has been established, there may arise a desire to learn from shared experiences by forming partnerships with institutions working in the same field. The American Association for Adult Continuing Education (AAACE) may want to form partnerships with other institutions and learn from shared experiences. The New Partnership Analyzer Toolset becomes highly useful in this regard. The ‘Policy Monitor’ generates a list of prospective partners for alliance; Center for Adult Continuing Education (CACE) Zambia, Center for Continuing Education for Adults (CCEA) Botswana, Department of Adult Education (DAE) South Africa.

The second tool the ‘Ishikawa Analysis’ helps in better understanding the structure of the policy formulation within each of the prospective three partners. This tool helps in the graphical representation of the of the cause-effect relationships within a policy structure in a clear and concise manner.

The ‘PESTEL Analysis’ enables a better analysis of the dynamic nature of the system by representing the external factors affecting the system in a clear framework. The political structure in Zambia is a multiparty system and hence there may be some of the difficulties in getting the policy approved by the number of coalition partners

The ‘Partner fit’ tools evaluates the applicability of the toolkit within the partner structure and also in the areas where the tool kit will be most valuable.



The ‘Relationship Mapper’ helps to evaluate the feasibility of the alliance and the developments of some initial implementation plans. The use of English in South Africa as a comparatively more popular language for instruction would require less resources for knowledge transfer than the other two partners which may require a interpreters and other staff for the transfer.

System Element

Promotions

Sales Kit



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Creating alliance is a process that requires careful thought and planning. Through four phases, connection, persuasion, establishing collaborative roles, and maintaining relationships, the Sales Kit is used to establish a connection with potential partners, to persuade the partner to create an alliance, and to maintain the relationship after formation.

During phase 1, connection, using the Relationship Analysis, the research team conducts research using databases and market/organization reports. They then analyze the information for the organization's present position, future potential directions, and areas for growth.

Using the data gathered from the Relationship Analysis and the Future Benefits Balancer, areas of expertise are compared and the organization's present position, future potential directions, and areas for growth are mapped out to create a balance of power and a mutually beneficial alliance. Strengths/weaknesses, resources, and wants/needs are all laid out using the Future Benefits Balancer.

During phase 2, persuasion, the Sales Pitch is made by the sales team. They generate the partner's point of view by presenting the idea through 'Rose-Colored Glasses' so it is most appealing to the potential partner. Then the potential partner's benefits are emphasized using the Selling Points Finder.

Phase 3, establishing collaborative roles, is done mostly through the Negotiation Tool.

Phase 4, maintaining relationships, enriches the alliance after initial formation. A liaison fosters other beneficial joinings which strengthens their network. A Sales Pitch is used to persuade common campaigns the partners can both participate in. A Facilitator oversees periodic meetings, so the connection between the partners never dissolves.



Scenario

An organization primarily focused on promoting safe sex has lately been at conflict with conservative Christian groups. In order to strengthen their image they are looking for an alliance with a strong moral image. This organization knows that they can reach out to many young people and has a strong educational system in effect. A potential partner needing access to this crowd, but whose mission is aligned with the organization would be ideal. Using the data gathered during the **Relationship Analysis** and putting it through the **Future Benefits Balancer**, they get a clearer idea of which partners would provide a better fit to them and are able to choose a partner.

Using the **Sales Pitch** they effectively present their organization and the benefits of an alliance. Roles are firmly laid out using the **Negotiation Tool**. The relationship continues to grow during phase 4, maintaining relationships.

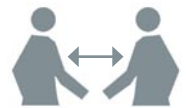
Through an organized process, the organization saves time and energy and functions in an efficient manner.



System Element

Communication

Community Network



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

The Community Network is the glue that unites the users and third parties of the toolkit by bringing them together on a regular basis and giving them a venue to exchange ideas. Since the targeted users are designers and policy makers, their different backgrounds and work habits must be considered and integrated. Different participants around the world at different levels of policy are also brought together in the Community Web site.

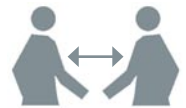
Better fluidity between designers and policy makers is achieved through Support Groups and Discussion Forums. Support Groups are open areas where anyone can provide advice and relate personal experiences. Discussion Forums, on the other hand, are open areas where progressive ideas are promoted and debate is sparked. This forum is the cutting edge of policy making and the latest news on policy and design is found here. The Bulletin Boards hosts specific topics related to policy, the toolkit, and toolkit usage. Designers and policy makers can both show their perspectives and methods as each learn from each other.

Networking is fostered through the Network Map. Every participant of the toolkit is mapped out so their professional background, past and current projects, and strengths are listed. Associations can be drawn and potential mentors, employees, and co-workers can be found.

System Element

Communication

Community Network



Scenario

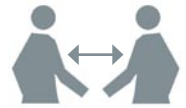
A local political group has been formed to create a policy on the regulation of a certain type of pit bulls in a certain city. No one in the group has prior knowledge on what type of pit bulls if any are potentially more dangerous. They start their research by contacting a vet who provides no expert knowledge. Then they look at the Community Network. Through the Network Map they can search for other policy makers who have experience making animal regulated policy. Through these contacts, they receive different points of views of animal regulation and different areas that animal regulation has influence. A controversial topic of a mass euthanasia policy for animal shelters is introduced in the Discussion Forums. Through several thoughtful discussions, the policy makers are better informed of all areas of pit bull regulations and saved time and energy in the process.



System Element

Communication

Conceptual Plan



Adaptable



Clear



Collaborative



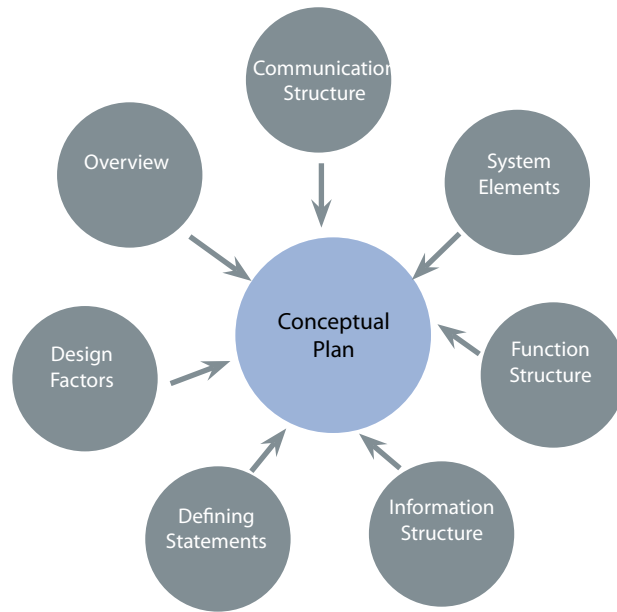
Integrated



Informed



Organized



Discussion

Often developers of a new project focus on the how of developing a project before they actually understand the project and what it entails. Discerning the conceptualization behind the project is important because the decision makers need to understand why the project is in existence and the purpose behind the project in order to make informed decisions.

A conceptual plan is developed before any other plans so designers fully understand the concept before making other vital decisions. The elements presented in the plan are presented at such a level so that criteria may be defined to judge how successful the project is. The elements of a project are diverse in role with Defining Statements providing high level goals, Design Factors highlighting critical problems that need to be solved, and Functions presenting the range of activities the project encompasses. The most vital parts of a conceptual plan are the System Elements. These elements provide individual solutions to problems presented in the Design Factors. The structure and relationships between System Elements are shown through Superset Elements, Subset Elements, Related Elements, and Associated Design Factors. Discussion provides a detailed description with an example of the element being used in the Scenario.

Other supporting material are the Function Structure and the Information Structure. The Information Structure reorganizes the Function Structure to develop creative solutions that were otherwise missed during the Solution Element phase. Visual supplements such as slides, clips, and images may be used to better convey the information.



Scenario

A group of policy makers and designers meet to develop a policy on airport regulation of forbidden items. The hype surrounding terrorism has a tendency to warp views of what is necessary and practical. A thorough, unbiased understanding of the background leading to this policy is needed. During meetings, people have different views on what the public wants, what defines safety, and how to define the boundary between safety and practicality. Currently, the designers focus on the needs of the travelers while policy makers focus on pleasing the public. The concerns of the airport operators are ignored. The lengthy process of figuring out how the needs of the different groups merge would be significantly shorter and easier if they had a plan to could refer to.

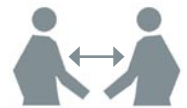
If this group had a conceptual plan, they would have a reference for the reasons behind this policy. Potential conflicts are avoided, and different personal points of view become a unified one resulting in a stronger, clearer, more focused policy.



System Element

Communication

Grassroots.org



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Founded on the belief that common people have to act together to represent common global interests, grassroots.org takes on the mission of spreading important, actionable information to the masses. This organization can provide numerous services to the research initiative for policy design. Functioning as a information conduit, the site can help to generate local support for policies both during the approval and the implementation phases. By using one established channel for distributing information to the public, will also promote the development of a community of supporters of 'well-designed' policy. Providing as much information as possible to the public via a grassroots web site will help make the policy making process more transparent and improve the public trust in the effort. Grassroots.org also provides free full service web hosting and email for other non-profit organizations. Taking advantage of these services will facilitate other elements such as the community network while keeping administrative costs and personnel requirements to a minimum.

Scenario

A policy making team is constructing a policy on a sensitive issue. It quickly becomes apparent that approval of the ideal policy will prove politically difficult. The policy design toolkit recommends building a broad base of public support via Grassroots.org.

The team provides content to the grassroots web developer who then constructs and hosts a web site for the initiative. The site contains a detailed charter which provides background on the problem and a summary of the research completed by the team. The process through which the policy was written is explained and arguments for the difficult decisions that had to be made are presented. Links to government offices make it easy for web site visitors to make their voices heard. The site will also have tips on how the public can assist in policy implementation and links to other organizations that are working to solve the same problem.

System Element

Communication

Participatory Design



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Participatory Design has long been practiced within the design world. It is the practice of involving potential clients or stakeholders in the design process by having them work alongside designers. Traditionally, it has been used to gather support and interest in the process of design from outside stakeholders who are either unfamiliar with or wary of the process.

Within the Policy Design Initiative, this technique will be used much in the same way. Through the use of "design events" like Open Houses and Deep Dives, the aim is to bring those involved in the more traditionally minded policy arena into the design world and show them what design is, how it works, and why it can be so effective in the creation of policy.

The two types of "design events" used for promotion are Deep Dives and Open Houses. Each event will be used for a different purpose and the invitees will be selected based on their role within the initiative.

Deep Dives are mainly used to recruit and interest traditional policy makers. A Deep Dive is a short, intense design project in which the traditional policy maker will work closely with a team of designers on a policy design problem.

The first step would be to draft a list of stakeholders that we would like to involve. These people can be policy makers, political or legal figures, educators or possible supporters of the initiative, and would be contacted using the various tools contained within the Policy Network.

The Deep Dive can be a mock design session or a part of a real life situation that will typically last for several days and will either be designed or timed so that the invitee gets a feeling for as many facets of the design process as possible. A Deep Dive can prove useful not just for promotion and building support, but also as a rudimentary education tool to help prepare a policy maker for an actual policy design project.

An Open House is a more relaxed method used much more for gaining support from those who will not actually be involved in designing policy. The goal here is exhibition, not involvement. Open Houses are more about teaching what design is, not how it works. As a result, Open Houses are open to the public.

Rather than a multi-day, immersive design project, the Open House is a weekend-long event hosted in an exhibition hall or other like venue. The Open House will feature design demonstrations where guests can get a surface understanding of the tools and methods of design. Case studies and exhibitions of past successes will also be used to display the power of design and its methods. An Open House event can be used both to educate the public and as a public relations tool to build credibility and strengthen community relations.

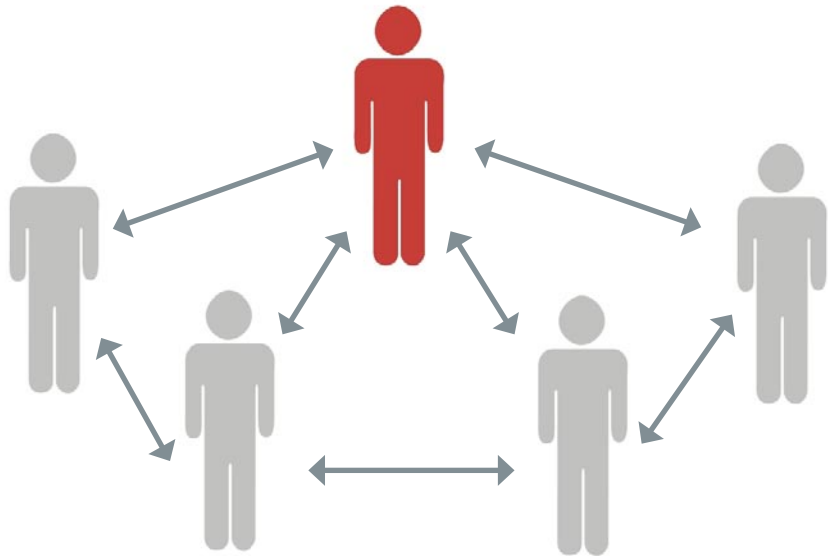


Scenario

An annual Open House is planned in an attempt to increase public and industry interest in the Policy Design Toolkit. Many potential investors and designers are invited along with general promotion to the design community and public.

A regional Design Institute sends several representatives. They are exposed to the practices taught through the Policy Design Toolkit, as well as past successes and demonstrations. They express an interest in partnering in the teaching and promotion of the policy design methods the toolkit has assembled. They agree to contribute faculty time, as well as several students to work along with the policy designers.

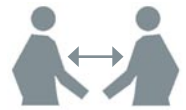
The students are asked to participate in a Deep Dive. Here they are given the chance to experience a much more intense exploration of the Policy Design process. The experience proves mutually beneficial for the students and policy designers, leading to the addition of the students to the policy design team upon graduation.



System Element

Communication

Policy Design Mentor



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Policy design mentor program is an initiative to advice and help new toolkit users in the application of the toolkit. It is an online resource which helps to facilitate interactions between a new user and a mentor.

The mentor database is a continuously updated searchable database of advanced users. It categorizes the advanced users based on their field of application, experience and tool competency and invites them to act as mentors.

The system may also recommend, allocate or allow users to choose a single or a group of mentors.

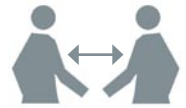
The systems aids in initiating a interaction channel between the user ad

A new user adopting the toolkit may have doubts and confusion about the usage of some tools. Also he may even want some advice on the effectiveness of the some tools in a particular situation. Though the toolkit has been designed as a generic aid to the address most common policy formulation process, a user (may not be a new user) may require some guidance in adapting the toolkit, from some one who has used it in a similar setup. The mentor would not only provide guidance to the new users in the aforementioned areas , but would also be reviewing the performance and competency of the users in the toolkit usage.

This would provide two benefits, one is that it will aid in learning the effectiveness and problems with of certain tools , thus contributing to the revision of the toolkit and the education, and two that they would also help in recommending would be mentors from among the users.

The interaction system facilitates and supports the communication and interaction pathways between the user and the mentor with the help of technologies like Video Conferences.

The system also keeps an active archive of the past interactions for future referencing for use cases. An initiative like this also helps to establish credibility and encourage acceptance with the prospective users. And further, this system will help in evolving the toolkit to become more dynamic and efficient in multiple scenarios.



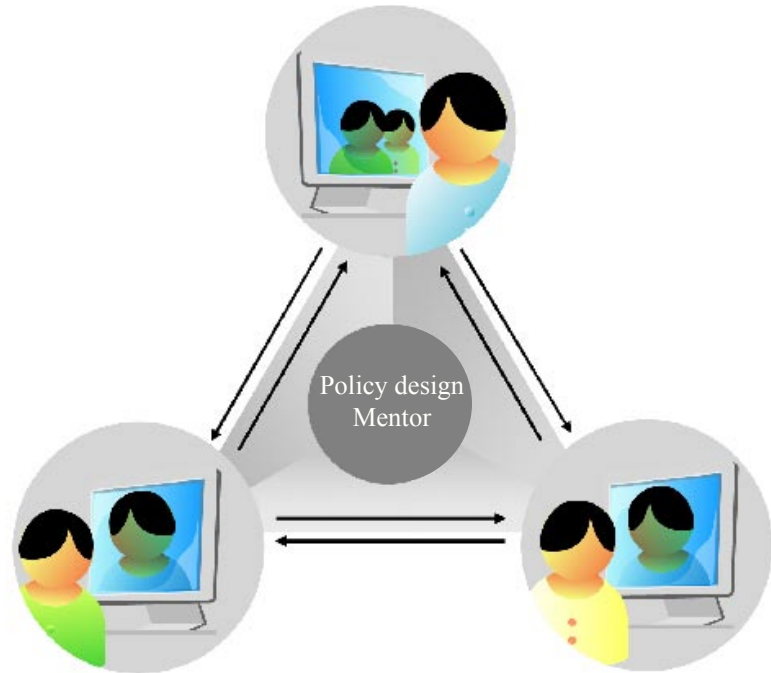
Scenario

Jason Brown has been working with the Australian Institute of Criminology (AIC) for the past 15 years. He heads the Drug Use Careers of Offenders (DUCO) project and is involved in the design of policies for the prevention of juvenile crimes related to drugs in the state of Queensland. He believes that old methods of preventing crimes are not effective for the growing population of juvenile offenders and hopes that design thinking could enable them to develop more innovative and effective policies to hinder these teen offenders.

He undertook the educational program to understand the usage of the toolkit and then returned back to Queensland office to share his learning and use it in his work.

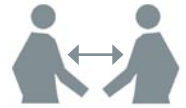
As part of the policy design toolkit, he was provided a login ID for accessing the Policy Design Mentor System. He was also allotted some server space and the system capabilities for engaging in real time Video conferencing. The system provided him with a list of mentors working in fields similar to Jason. This is how Jason got to know Marc Picard (advanced toolkit user) who had been working in the Ministerie van Justitie (Department of Justice) in the Netherlands. He has also worked for five years with Directie Preventie, Jeugd en Sanctiebeleid (DPJS) in the Youth Crime division.

Jason and the entire team has been working on the policy design process for the past two months. They had some initial problems in understanding the use of some tools in their perspective. (like the Negotiation tools). And this is where Jason found the PDM system quite helpful as he could always ask experts like Marc to help them adapt the toolkit for their type of work. Marc has been mentoring three other new



users and all of them have a weekly review sessions via Video conferencing, in which each of the new users can discuss issues among and along Marc and learn from each other's experience. Their discussions have also helped Marc in understanding the problems with a few tools, especially for the new users. And Marc has also made recommendations on the redesign of some of the tools.

Further, all of the interaction between the mentor and the new users has been carefully stored for future reference for any of the new users planning to use the policy design toolkit in similar fields.



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

As design thinking use expands, both within and outside of governments and design areas, the depth of knowledge required for thoughtful and informed policies also increases. Along with this circumstance, professionals in policy-making and design field must be lifelong learners, acquiring newly emerging skills and broadening their horizons throughout their careers to successfully solve current global issues and problems in policy making. For this reason, there is needed to have a special education program which is designed for a select group of professionals in policy and design fields who will either work in or with the policy-making sector.

In this context, the main purpose of the Policy Foundation Studies is to help participants obtain expanded design knowledge and tools in policy making and deploy them as a policy design researchers and policy experts. Thus, the curriculum should be dealing with how to properly use current policy design tools which have evolved with design thinking and how to approach the policy making in a systematic and logical way, both in the research and policy-making stage.

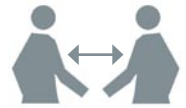
Overall, this course provides an introduction to and overview of the field of policy design synthesis. It focuses on the policy implications of the increasingly important interaction between design thinking and the policy making process.

Policy Foundation Studies belongs to R&D department for PDT where policy design toolkit and design-oriented policy-making process is created and developed. Policy Foundation Studies is divided into two curriculums of different levels. Participants who will study advanced policy course are selected among professionals who already have some experience in policy-making or want to be a policy maker. While, participants who will study R&D course are selected among graduate students who studied policy design synthesis or practical designers who are expected to participate in the process of policy-making. And all of the instructors in Policy Foundation Studies have much hands-on experience in both policy design synthesis and policy-making sector.

The concentration in advanced policy course is the education for policy specialists, design experts and power in contemporary government who already have some experience in policy making before, but need to learn how to integrate design methodology or tools into policy-making. This course focuses on critical role as a policy design manager or advisor who will be charged with formally evaluating policy implementation and performance. In this course participants will be introduced to a variety of policy-relevant issues for which policy design toolkit has been successfully applied with stressing the significance of key management competencies as policy managers.

The concentration in R&D course is designed for qualified field designers or graduate students who want to study governmental policy planning in depth and are expected to be a policy design toolkit researcher. This course will explore the critical role of design thinking in policy-making insuring the opportunity for research specificity and a depth of knowledge in the policy-making area. The objectives of this course are as follows. First, participants will learn various policy design tools and its applications to develop their capacities for understanding governmental policy planning. Second, they will apply learned policy design toolkit to policy-planning study that provides an in-depth case for learning about defining issues, diagnosing problems, and extracting concrete solutions from the toolkit.

After each course is completed, every participant will be given a PDT certificate.



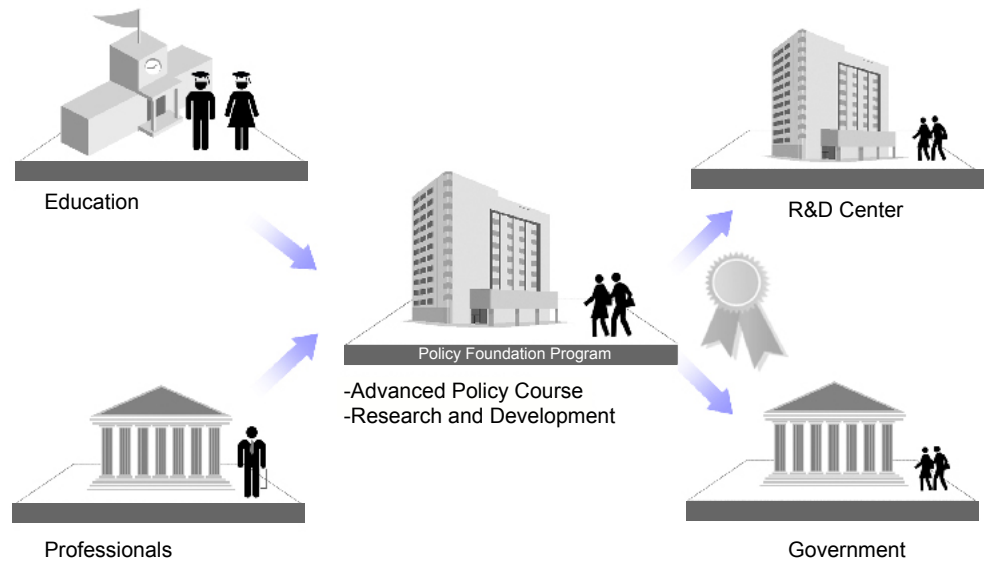
Scenario

James Jordon who recently finished graduate course teaching policy design synthesis is eager to work as a policy design toolkit researcher in PDT R&D department. To achieve his goal, he is required to obtain a certificate of a eight-week policy foundation program. After carefully looking into its curriculum, he enrolls in the R&D course. The course is offered in every summer season and a full-time commitment is required during the course.

During the course, he learns three key steps in policy design synthesis: uses of a variety of current policy design tools, development of policy design tools and adoption and implementation of policy design tools. Like this, he initially learns how to use each policy design tools and how this toolkit is applied for real policy-making cases. After four weeks, his education is more focused on what is the value of design-oriented policy-making and in which way this design tools must be evolved and integrated into policy-making in the future, which are essential for R&D researchers for policy design synthesis.

After an eight-week R&D course completed, he participates in an intensive four-week, full-time internship that addresses current topics in policy making. During this internship, he explores current policy design tools acquired in previous course work to real world problems through visual simulations, scenario building and case studies. Each policy project is done in teams of five participants covering a specific array of policy topics. Participants have an opportunity to express choice of topics prior to the start of the internship.

After he completes entire twelve-week R&D course including an internship, he obtains a certificate which is a requirement to be a policy design toolkit researcher.



System Element

Communication

Professional Advice



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

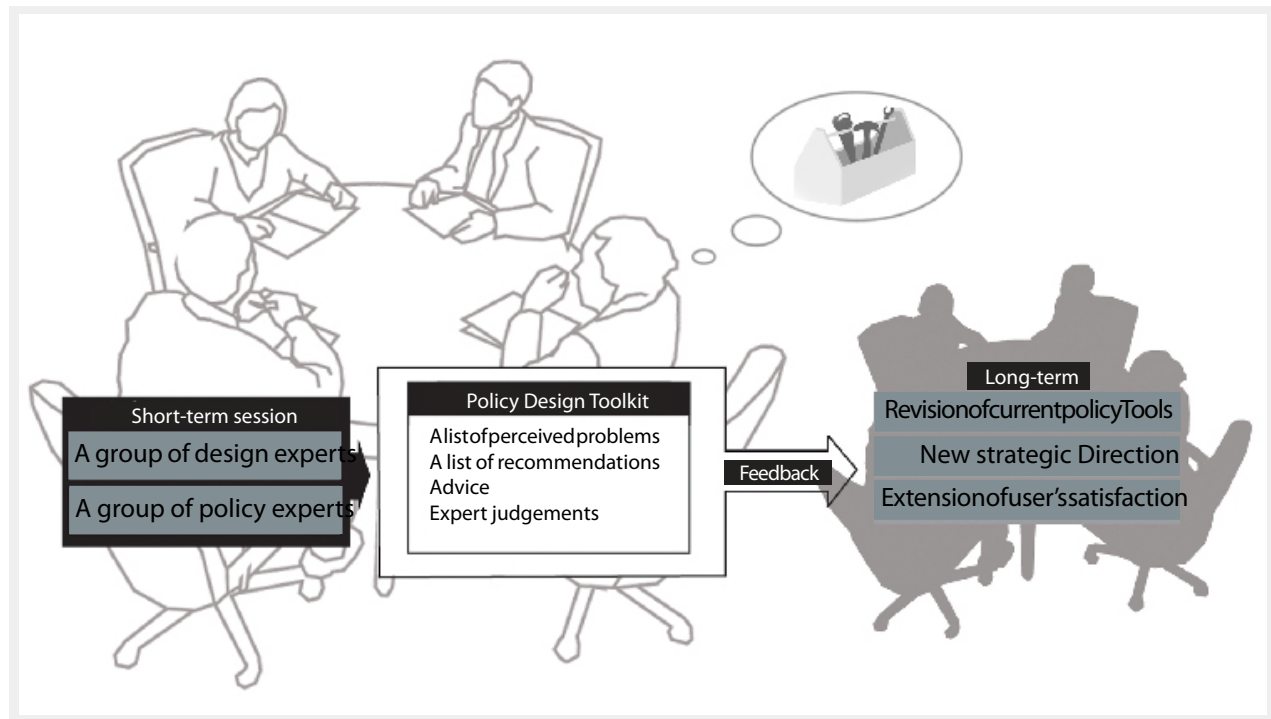
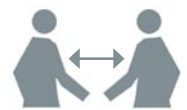
While gathering, modifying currently used policy design tools and inventing new policy design tools, toolkit developers need to verify whether each tool has potential problems or risk factors for policy-making or not by policy design tool experts or advisors. For this purpose, individual policy toolkit experts can be consulted, but it would be much better to bring groups of experts together so that a wide range of experience can be drawn on during the discussion.

Professional Advice is a forum of selected experts controlled by an impartial moderator to identify potential problems with any policy design tools policy researchers have collected and created and get valuable feedbacks. Each participant should have some expert knowledge of the policy-making area under discussion because successful toolkit criteria depend upon a thorough understanding of all the issues that surround the policy project. They can be found in policy-making communities, design organizations, institutions and competence centers for policy making.

Once the issues arise with a couple of tools in the development phase, toolkit developers can require to arrange for professional advice session. And then selected experts will be prepared to give their time to worthy cause for free.

In advance of the evaluation, the experts should be instructed about the purpose and intended use of the policy tools. And project definition and scope should be presented as background information for the demonstration. All the relevant policy tools should be gathered and prepared for the presentation. This includes the tools to be evaluated and any background references on what the policy aims to do, who its target users will be. It can be valuable to have a person on hand who can demonstrate the policy tools to the experts, and to answer any questions that may arise regarding its definition and use. The experts must base their judgments on a demonstration of the tools, and this can be varying in sophistication from Heuristic evaluation to Use case. In each of these cases it is important to try and ensure that the experts understand what the final policy will be like by the discussed tool and how it will influence on recipients or situation.

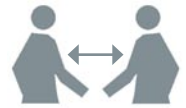
During the professional advice session, all the process needs to be recorded, which will be a list of perceived problem, recommendations, advice and opinions to improve what toolkit users are expected to experience during use. This discussion can commonly take approximately half a day to carry out. If needed, one or two days duration are possible. It depends on how big the tool's problem to be discussed would be. After the session is over, toolkit developers will start to revise the discussed tools based on experts' success criteria and advice. As a result, a new strategic direction of the tools will be established and toolkit developers will be able to have prospective toolkit users in policy-making satisfied during use.



System Element

Communication

Policy Server



Adaptable



Clear



Collaborative



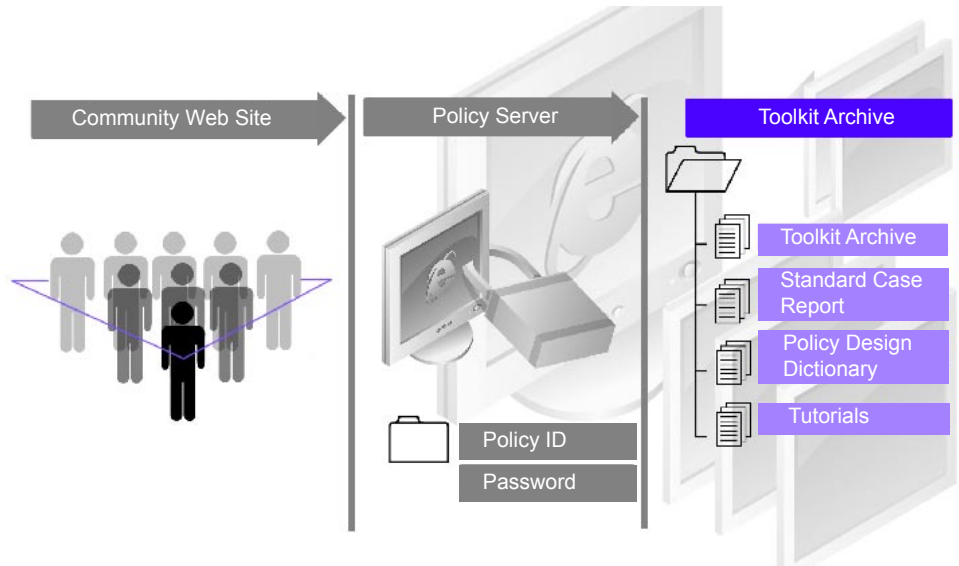
Integrated



Informed



Organized



Discussion

Policy Server is a web-based archive of policy design tools, its usage and case studies to discover how design methods can benefit the decision makers' policy works and how design methods and design thinking can be integrated with traditional policy-making tools.

The main purpose of Policy Server is to have a shared understanding of common objective among interdisciplinary and collaborative teams including design experts, policy-making communities and policy makers and maintain all the unified policy-making methods and effective policy-making process to be seen in one spot.

To gain access to all the contents of Policy Server, every policy toolkit member should agree with Terms of Rules and Instruction for the first time. Once accepted, the members will be offered a policy ID and password which will be required to input on the pop-up screen when they click a policy server log-in icon. As this web-based document is limited only to relevant policy members, Policy server can be only accessed to limited members who have their own policy ID and password.

Policy Server consists of four components: Toolkit archive, Standard case report, Tutorial and Policy Design Dictionary. All the data can be searched via quick searching engine or advanced searching engine according to user's preference.

Toolkit Archive maintains all the frameworks of the policy design toolkit used until now for policy-making that include research tools, analysis tools, implementation tools and evaluation tools. Standard Case Study maintains relevant policy-making case studies in an alphabetical order. Tutorial is a self-learning interaction tool wherein users can learn all the uses of policy design tools and policy-making process and look into references which has all the related news and webpage links. Policy Design Dictionary is a collection of index which has easily understandable explanation of the toolkit language.

Overall, the Policy server would be most helpful digitalized documentation in that it goes beyond verbal descriptions or quantitative data. In addition, it encourages toolkit members' self-learning in the entire policy making process with the possibility of the new widening policy and strategy perspectives and increases the potential cross-fertilization of multi-disciplinary dialogue at the policy making level.

System Element

Adaptation

Innovation Inventors



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

Innovation Inventors are tasked with doing exactly what their name implies, create new tools to be used within the Policy Design Toolkit. Due to the multitude of pre-existing policy tools available, their involvement within the research initiative will be limited, but their contribution is critical. This makes finding people qualified to perform this function all the more important.

The primary role of the Innovation Inventor would be during the initial research phase of the initiative. Tools would have been gathered according to the standards laid out in the Policy Protocol, and assigned functions and uses through Tool Targeting. However, it is inevitable that there will be cases where the tools available do not fulfill every need. Here, there are two choices. You can either adapt an existing tool to the need at hand, or create a completely new tool tailored specifically for the need.

Either choice would require a group of highly skilled designers. These designers would have to be experts in tool design and implementation, and have a great understanding of the goals of this particular initiative. They will also have to be equipped with a firm understanding of the policy design process, and possess an understanding of how it could be effected by design thinking. Lastly, they would have to be interested in supporting this initiative.

With the above requirements, the list of possible candidates to fulfill the role is extremely difficult to populate. They would have to be some of the top designers in the corporate and academic worlds. However, due to the grassroots nature of this initiative, the funding and resources available are a severe handicap.

The Community Network is the best place to start our search for these experts. It can be used to identify sympathetic designers who would be willing to help this initiative. Again, because of our limited resources, educators and other academics would make the most likely candidates, so any ties with design institutes or universities should be explored along with think tanks or other organizations that are practicing design thinking.

Once candidates have been identified, we need to approach them with the opportunity. We should utilize recruiting tools such as an Open House or Participatory Design to get them interested and involved in what it is we are doing. The Sales Kit could also be used along with Media Relation tools to further sell the idea if necessary.

The Innovation Inventors will then be given access to the Policy Server where they will be able to find all the relevant information, documentation and history. The Policy Server can also be used to communicate concerns and needs for the tool.

Tools created by the Innovation Inventors will be documented using the Standard Case Report and archived on the Policy Server.

Innovation Inventors will also be used intermittently for toolkit adaptation. If over time tools become outdated, Innovation Inventors will be utilized to create new tools to take their place.

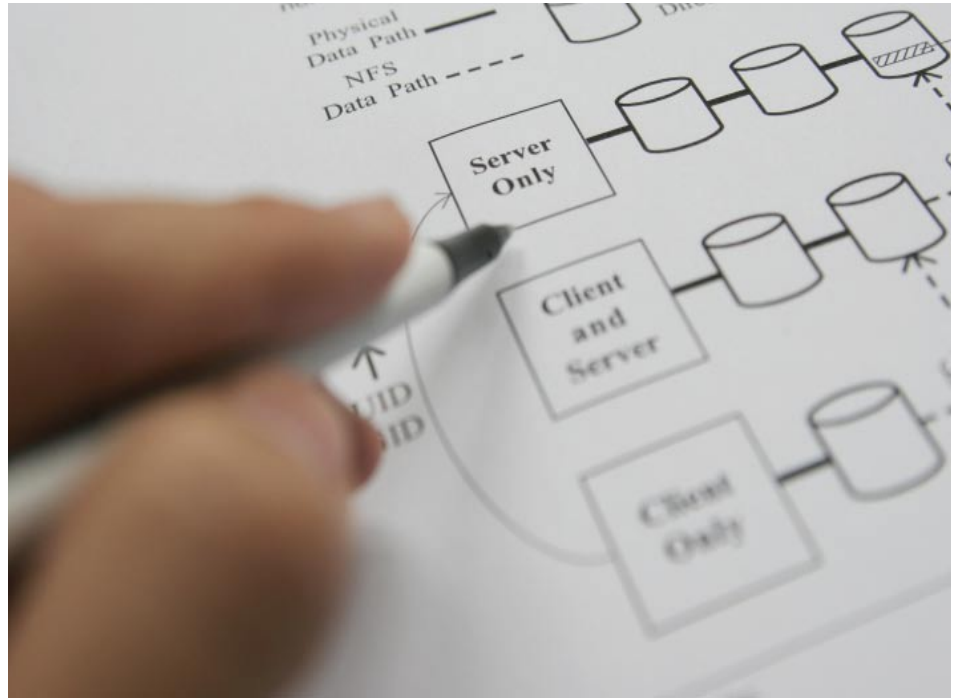


Scenario

After researching the available tools using the Policy Protocol and matching them with their appropriate uses through Tool Targeting, it becomes quickly apparent that there are several needs that are lacking corresponding tools.

In order to fill these needs, new tool need to be developed or existing tools need to be adapted. The research team consults the Community Network to find designers who have the ability to craft new tools. They then contact several of the most experienced designers at research institutions, universities and other organizations to bring their expertise to the situation.

Once the team of Innovation Inventors has been assembled, they create new tools or methods to fulfill the identified needs. Their work is added to the Policy Design Toolkit to provide a more complete set of tools.



System Element

Adaptation

Tool Targeting



Adaptable



Clear



Collaborative



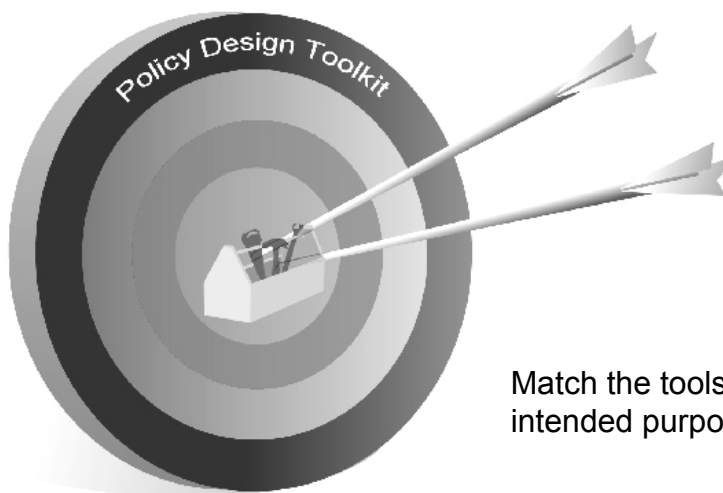
Integrated



Informed



Organized



Match the tools with their intended purposes

Discussion

Tool Targeting is a specialized method used initially during the research phase. It's purpose it to match, or target, a tool with its intended purpose. It can also be used to identify gaps within the policy design process by identifying what needs are missing a corresponding tool.

Tool Targeting can also be used during the adaptation phase. As new tools are discovered or created, they will have to matched with their appropriate uses.

Scenario

Initial research has been completed and the team has compiled a sizable inventory of design tools. Most of the tools have clearly intended purposes, but some are less clear than others. The team members use Tool Targeting techniques to match the tools with their intended purposes.

After matching all of the collected tools with their corresponding roles, it becomes clear that some of the functions of the toolkit are not being fully supported. Using this information, the research team re-news their attempt to collect tools, this time with a more focused purpose.

System Element

Adaptation

Tool Test



Adaptable



Clear



Collaborative



Integrated



Informed



Organized



Discussion

After the toolkit has been developed and in use, changes and improvements are inevitable to continue the successful use of the toolkit. In order to implement these changes in a systematic way, a process must be developed. The toolkit revision process consists of four phases: evaluating the toolkit, selecting and weighing areas for change, making revisions and finding new tools, and implementing change.

During phase 1, the toolkit is evaluated using several tools. The Tool Use Monitor checks for under used tools or overextended tools. The Monitor maintains a database for all the tools and how frequently they are being used. The Community Board is an open forum for complaints about the toolkit. Users can also share any new uses of a tool that they have stumbled upon. Tool Targeting assigns new tools a role and if needed will look for new tools when needed. The Tool Database looks at new or modified tools and compares them with existing ones.

During phase 2, areas are selected and weighed for change. External issues are brought forth using the PESTE Analysis. Trends are also analyzed through research and by using the Community Network. The Policy Monitor is also referenced during this phase.

Phase 3 references the Innovation Inventors and Professional Advice tool to make revisions or to create new tools. Use Cases are also relevant because they provide scenarios of how tools are or have been used.

All these changes and improvements are implemented gradually in phase 4. There is a Checks and Balances system so during each implementation phase, one can make sure that the changes are being used as planned and have no adverse effects. A Roadmap is also plotted to foresee any potential problems.

System Element

Adaptation

Tool Test



Scenario

A toolkit user is dissatisfied with a tool used to present policy to legislature. He modifies the policy so that it is more effective by bypassing the middlemen. He presents this to the Community Board. The Toolkit Testers notices that there have been several complaints about this tool. Using the Tool Use Monitor, they see that this tool has been under used. The Tool Database checks for similiar new tools and compares to find the most effective one. Users of the toolkit provides valuable input, and the Toolkit Test provides access to the user and steps to analyze the effectiveness of the tool.

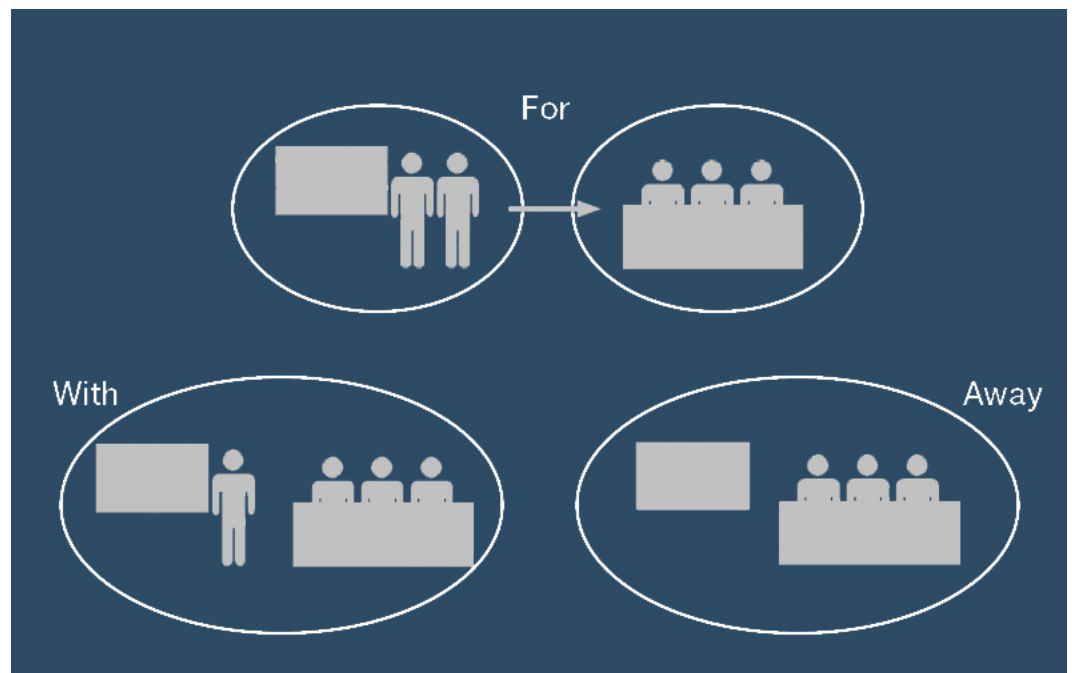


Conclusions

In conclusion we present some thoughts on how the policy design toolkit might be used and where it fits within the larger system that is needed to bring design thinking into policy decision making

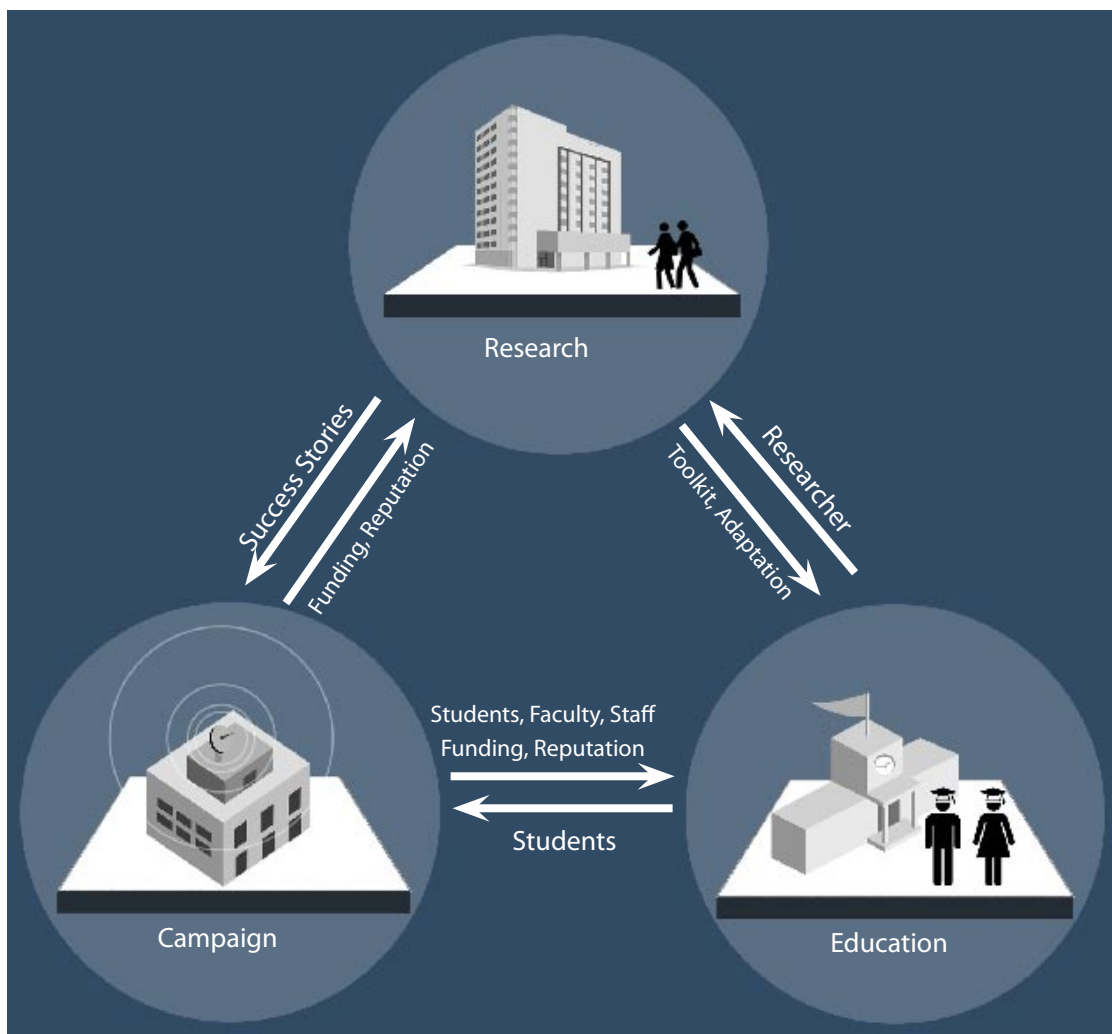
Modes of Use

The policy design toolkit should support at least three different modes of operation defined by the structure of the policy making team. The preferred mode consists of a design advisor working with a group of policy makers. The design advisor functions as a guide, directing the team in the use of tools that the advisor has been trained to use. A second mode would involve designers working for the policy making team. Designers in this role could play an important part by improving communications through visual representations of complex concepts. Finally, the toolkit should support designers working away from the policy making team. This mode would support the inclusion of complex modeling tools that are not appropriate for use within the policy making team.



System of Support

While assembling and developing tools for policy design synthesis is an important step, the toolkit alone will not change how policy decisions are made today. For the toolkit to become accepted for widespread use, governmental and institutional leaders will have to be convinced of the value of design thinking for policy planning. A campaign will have to be generated to address opinions that high-level decision makers presently hold of design and the design community and to demonstrate, as much as possible, the value of design thinking. A system for training designers to use policy design tools and prepare them for their new roles must also be implemented. A design education program to prepare qualified individuals for governmental and institutional service as advisors on policy design synthesis will provide the necessary talent for the system to function.



Design Thinking

A Research Initiative for Policy Design Synthesis

Appendices

Systems & Systematic Design
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Hyunjee Jung
Derrick Kiker
Gil-ock Lee
Rishabh Singh

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Charter

Design Thinking

A Research Initiative for Policy Design Synthesis

Charter

Background

In the 1980's, with the first comprehensive gathering of data on global warming, tangible effects of population growth began to be firmly associated with the actions of industrial society. Meeting the demands of a growing population for material goods was beginning to be seen as a two-way street. The concept of a "better life" was beginning to look like a relative one—briefly better, relative to the past, but frighteningly better, relative to a very uncertain future.

Because few listened when something might have been done about it, we are now confronted with global warming as an observable, highly threatening fact. Like many other massive events, it took a long time to gain strength, and it will take longer to lose it. It is still in a strengthening pattern, and it is hard to see how that will change in the foreseeable future.

In spite of world-wide awareness, population growth also is still in an accelerating phase. The population of the world is now 6.46 billion and rising. Just 50 years ago it was 2.76 billion. Despite the fact that almost all developed nations are at replacement-level birth rates—or lower—world population is still on a steep incline because of high birth rates in developing countries. Before world population begins to level off, we can expect to see the number rise to over 10 billion—barring catastrophic events.

And catastrophic events are distinct possibilities, growing in probability every year, all because of population growth. A better life for a growing population—even eliminating poverty, as the September 2006 issue of *Scientific American* argues as a goal—means more energy to be produced and more resources to be processed. Without sustainability, this can only mean unchecked resource depletion and uncontrolled greenhouse gas emissions. Both will generate disasters at an accelerating rate.

Global population growth and the problems it has induced—from resource depletion to global warming—are arguably the most serious threats ever to our civilization. But as we finally commit to confronting them, technologies now just evolving will put awesome new capabilities at our disposal. We may yet be able to escape the worst ravages, perhaps even bring better quality of life to our descendants. The question is, will our political decision makers have the wisdom to avail themselves of the right tools at the right time? Will we be able to avoid the worst of projected disasters and make best use of the new technologies? Decision makers will need the best of creative thinking from the science community—and from a design community prepared to contribute.

The evidence is that decision makers are not using—or receiving—the full range of advice they need. Advice that offers proactive, constructive, creative options for action is not being heard. The design community must assume new responsibilities and reinvent itself to fill this void. In so doing, it will have to rethink matters of education, research and professional activity, and it will have to prove to leaders that design thinking is a critically valuable asset.

Relevant Trends

Trends initiated by emerging technologies, changing environmental conditions, and evolving social change will have real impact on the situation. Among such trends are:

Food Production on Land

Food production for a growing population is an absolute requirement. In the last 60+ years, beginning with the green revolution that virtually saved India from starvation, the rise in food production has outstripped population growth. But arable land per capita continues to decrease—by 2050, it will have decreased over 62% since the 1980's—and productivity cannot increase indefinitely.

Food Production at Sea

The oceans, once thought to be a limitless food source, are fast becoming a depleted resource. Stocks of wild finfish and shellfish are declining alarmingly. The fishing industry is turning more and more to deep-water species to replace them, often with little knowledge of the biology of the replacement species.

Water Resources

Already in many parts of the world, water supplies are reaching levels of insustainability. Complicated by agricultural needs for irrigation and the needs of urban centers becoming megacities, the fresh water resources of our lakes, rivers and subsurface aquifers are subsiding. In 2009, 8,600 children were dying daily from insufficient or contaminated water supplies. One-third of the world's population, by some experts' analysis, live in water-stressed countries now, with two-thirds of the world to share their dilemma by 2050.

Mineral Resources

Mineral resources are approaching finite limits, exhausted in some locations, more difficult to extract in others. While supplies of some minerals are in no immediate danger, others are under severe pressure. Oil is a resource of vital concern, with production expected to peak in this decade or shortly thereafter. The Hubbert Curve, long-used as a predictive tool in the petroleum industry, when coupled with modern corrective tools, predicts that we are reaching worldwide peak production now and face a reduction in production of approximately 3% per year very soon. Not only will that oil production have to be replaced as an energy source, additional energy sources will have to be found to keep pace with the population curve.

Population Movement

In an interesting paradox, the countryside is becoming less—not more—inhabited as we add to the population. The people are moving from the country to the cities. As of this year, 2009, the world is more urban than rural for the first time. In the next fifteen years 300 million rural Chinese will move to the cities. In 1950, only two cities in the world, Tokyo and New York City, were over 10 million in size. By 1975 there were 4 such megacities, and by 2003, there were 20. By 2016 there will be at least 22. In China alone there are between 100 and 160 cities with over 1 million inhabitants (America has 9, and Eastern and Western Europe together have 36). Cities are complex, sophisticated systems, but their managers will need all the skill they can command to deal with the great urban migration.

Climate Change

Climate and weather patterns are changing. Some regions are simply getting drier or wetter, but the greatest damage will come from sustained, severe droughts and intense, prolonged flooding. The problem is change: eco-systems confronted with wetter or drier conditions for periods far longer than the environment or its inhabitants are prepared.

Rising Ocean Levels

Ocean levels are rising. Temperature rise under global warming is greatest at the poles, and polar melting is accelerating. Melting icebergs have little effect on rising water levels because the ice is already floating, but ice melting on land, such as in Greenland and Antarctica, will contribute to rising water levels, and the thermal expansion of water as it is heated a degree at a time will also contribute. The inter-governmental Panel on Climate Change in its 2001 report, estimates a 46 cm (18 inch) mean rise by the end of the century with a low estimate of 9 cm (3.6 inches) and a high estimate of 88 cm (35 inches). Many of the world's major cities are on ocean coasts or waterways close to the oceans.

Storm Violence

The increased heat energy created by global warming is fueling more violent storms. Storms over the water will increase in number and in violence. Storms over land, although less subject to the stimulation of ocean heat, will draw from the weather systems that build over the oceans and move readily onto land. All but the regions most remote from the coasts will be influenced. Category 4 and 5 levels can be expected increasingly for hurricanes, cyclones, typhoons and tornadoes.

Moving Ecological Zones

On a longer scale, climate changes are moving the zones in which species can live. Warmer winters, earlier springs and hotter summers are changing key environmental characteristics crucial for species' survival, even existence; and as ecological zones migrate northward (or southward in the southern hemisphere), they will do so at a pace too fast for plant species to follow. When species disappear, others dependent on them are also affected, and eco-systems disintegrate. Biodiversity will decrease and extinctions will take place.

Increasing Expectations

The growing availability and capabilities of communications such as cellular telephones, satellite and cable TV, and the Internet across the country (and the world) are providing people with daily knowledge of living conditions, problems, products, threats and services everywhere. The media are creating growing avenues for fast communication between protectors and populace. They are also educating the populace on the state of conditions and creating expectations that both fuel demand and create willingness to change.

Internet Penetration

Computer use and Internet access grow exponentially every year. Information of encyclopedic detail can be obtained more and more easily, and complex, sophisticated processes can be used remotely. Access to high-quality communications and sophisticated computer tools are increasingly available to individuals and groups anywhere. In the United States, Internet penetration has reached 67%.

Emerging Technologies

The pace of technological change continues to accelerate, bringing new science to commercial, institutional and industrial uses at an ever quickening pace. Most notable among many fields, major technological innovations can be expected in the new disciplines of molecular nanotechnology, robotics and the biosciences.

New Relationships

Greater public mobility and access to information is changing the nature of association for many individuals and organizations. Organizations that once operated in isolation are now players in a common environment. Sometimes the emerging relationships are competitive, sometimes cooperative. New forms of relationship can be expected and created as conditions evolve.

Project Statement	<p>Using Structured Planning methodology, develop a research agenda that assembles applicable design theory, processes, methods and tools; identifies new research areas for development; and establishes a process for proceeding. The proposal should:</p> <ol style="list-style-type: none"> 1. identify current weaknesses and strengths in design methodology applicable to policy formation at institutional and governmental levels. 2. match design strengths with policy-making needs to outline kinds of knowledge to be developed and methods to be constructed. 3. consider styles of advisory process and new forms that could be implemented.
Goals	<p><i>As general guidelines a Research Initiative for Policy Design Synthesis should:</i></p> <ul style="list-style-type: none"> • Explore a full range of research possibilities, paying special attention to appropriate technologies and user needs. • Consider both high- and low-tech tools as they are appropriate. • Include ideas for content as well as process—including procedures, policies, activities, organizational concepts and relevant relationships among them. • Explore revolutionary as well as evolutionary ideas. • Consider the educational process through which the products of the research process are transferred to users. • Design for <i>all</i> involved in research activities, and provide for them in the plan. Thoroughness is a step toward integrity. • Consider potential costs and funding thoughtfully; the proposal should not incorporate unnecessary frills, but it should not sacrifice effectiveness for low cost. • Treat the design problem as design from the inside out; user operational needs come first, with every attempt possible made to satisfy them in some way, even when tough design decisions must be made. • Conceive the properties and features of the research process as means to build trust and cooperation between research programs and schools—and the governmental and institutional leaders they will support. • Consider the project as one component of four demonstrating advanced design thinking and showing how it can be extended to decision making at the policy planning level. <p><i>Overall, the solution should:</i></p> <ul style="list-style-type: none"> • Assume that the proposal can be acted upon as if it is conceived. Do not under-propose on the assumption that a concept might be politically opposed. • Demonstrate what might be achieved. The value of the proposal is in its ideas, not its certain attainability. Ideas that might not be fully attainable under today's conditions may be incrementally achieved tomorrow—if they are known.
Resources	<p>Resources for the project will be:</p> <p>Physical:</p> <ul style="list-style-type: none"> • The facilities of the Institute of Design, including Room 614 as general meeting space at the beginning of each class session, and 6th floor for team activities. • Computing support from the fifth floor computer facilities. • Equipment as necessary from ID resources.

Financial:

• None

Human:• *Planning Team:*

Clinton Barth

Gil-Dok Lee

Hyunhee Jung

Rishabh Singh

Derrick Kilzer

• *Project Advisor:*

Charles L. Owen

Distinguished Professor Emeritus

Schedule

The project will be conducted from August 30 to December 8, 2005.

Week	Phase	Activity	Product
1 Aug 30	Introduction	Introduce project	
Sep 2	Project Definition	Develop Issues & Defining Statements	
2 Sep 6 Sep 9		In-Progress Review	Issues DefStates 1
3 Sep 13		Develop Modes and Activities of Function Structure	
Sep 16		In-Progress Review	DefStates 2 Fn Struc 1
4 Sep 20	Information Development <i>Action Analysis</i>	Generate Functions, Design Factors and Solution Elements	
Sep 23			
5 Sep 27 Sep 30			
6 Oct 4		In-Progress Review	DefStates complete Fn Struc 2 DesFacs 1 SolnEls 1
Oct 7	Information Development <i>Action Analysis 2</i>	Complete Functions, Design Factors and Solution Elements	
7 Oct 11 Oct 14			
8 Oct 18			Fn Struc complete DesFacs complete SolnEls complete
Oct 21	Information Structuring <i>Interaction</i>	Score Soln Elements vs Functions	

Cost. What approach should be taken to funding the costs of research?

Priorities. How should the prioritization of research topics be addressed?

Sites. Where should a research institution or institutions be sited?

International Cooperation. What level of international cooperation should be implemented for sharing research results?

Defining Statements

Defining Statement		Issue Tool Access	1
Project Research for Policy Design Synthesis	Originator Gil-Ock, Lee	Question at Issue Should the tools chosen for the toolkit accommodate all types of users?	
Contributors 30 Sept., 2005 Derrick Kiker			
Sources Team Deliberations		Position <input type="checkbox"/> Constraint All tools should be able to be used by all types of users. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	
		Alternative Position <input type="checkbox"/> Constraint Tools should not be adapted to accommodate non-design users. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	

Background and Arguments

The purpose of the policy design initiative is to inspire and enable the best use of design thinking by governments and institutions at the policy making level. To be effective, the selected design tools should be adapted not only for the design professionals who have full understanding of their usage but also for policy makers who apply the tools to policy decision making. For this reason, it is very important the tools should be developed in common language so that both parties can easily understand and use the tools in a cooperative way.

It could be argued that by adapting tools for use by non-designers, the tools' effectiveness could be diminished. If, however, too many tools are available for use only by designers, it would be more difficult to foster cooperation between designers and policy makers. Additionally, a toolkit that requires a designer's expertise to be effective would limit the potential user base and slow its adoption. In this respect, it would be much better to enable both parties to use the design tools together so that they can share in all aspects of the process.

In conclusion, the use of the design tools should be available to both design professionals and policy makers. By doing so, the policy design toolkit can make rapid progress by obtaining feedback from policy makers, who can also communicate achievements of the design tools and importance of design thinking to the public.

Defining Statement		Issue Accessibility	2
Project Research for Policy Design Synthesis		Question at Issue To what extent should policy design toolkit (contents) be opened?	
Originator Gil-Ock, Lee			
Contributors 9 Sept., 2005 13 Sept., 2005 Hyunee Jung Derrick Kiker		Position <input type="checkbox"/> Constraint Modifications to the policy design toolkit should be <input checked="" type="checkbox"/> Objective vetted for approval by the user community. <input type="checkbox"/> Directive	
Sources Team Deliberations		Alternative Position <input type="checkbox"/> Constraint Any user should be able to make modifications to their <input checked="" type="checkbox"/> Objective toolkit. <input type="checkbox"/> Directive	

Background and Arguments

Realistically, we must accept the fact that anything released in electronic format is susceptible to easy modification. Any effort to somehow "secure" the contents of the policy design toolkit would not only fail, but would probably actually challenge users to make changes. Acknowledging the fact that individual modifications are not preventable, however, does not require us to support them.

Developing and maintaining access to policy makers will require one thing above all else ... quality work. The policy design toolkit will be meticulously researched to provide only the best tools designed to produce a high quality policy. Failures during the tenuous stages of early adoption could prove catastrophic to the toolkit's widespread acceptance. In order to minimize the likelihood of such failures, the integrity of the toolkit's contents must be maintained. Supporting user level modification of the kit's contents could make this task impossible.

Adapting the toolkit to users' needs by integrating new tools accepted by the majority of the user community will serve to maintain the toolkit's quality and usefulness. By streamlining the process by which these changes are made, individual users will not feel the need to make modifications on their own.

Defining Statement		Issue Issue selection	3
Project Research for Policy Design Synthesis	Question at Issue How will designers select the issues they address?		
Originator Clinton Barth			
Contributors	Position <input type="checkbox"/> Constraint Designers must not become involved in the issue choosing process. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint Designers should choose the issues they want the toolkit to address. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

The Policy Design Toolkit was conceived to bring design thinking to the policy makers in order to improve the policy making process and the policies themselves. To expand it into the realm of issue selection will overextend the toolkit and reduce it's effectiveness in its primary role.

There are a great many issues today that would benefit from immediate attention and policy change. This, however is part of the problem. There are simply too many issues to choose from that the process of choosing itself would be too timely and intensive of a process, absorbing resources that would be better applied to the act of policy creation. Additionally, there are no tools within the toolkit that address issue selection. Too include them would only complicate usage of the toolkit.

In addition to resource concerns, there are also political concerns involved in the process of issue selection. If designers start only addressing issues that are important to them, they run the chance of appearing to have an agenda. In order for the toolkit to be most effective, the designers using the kit must remain apolitical in order to minimize the chances of appearing politically motivated.

The success of the toolkit depends on its ability to generate support among policy makers. If designers pick the issues the toolkit will address, they will then have to find politicians and/or policy makers who agree with the issue to lend their support. Designers can increase their chances of success if they only work on issues that are brought to them and therefore have an existing support system.

Defining Statement

Project

Research for Policy Design Synthesis

Originator

Derrick Kiker

Contributors

Sources

Team Deliberations

Question at Issue

Should the toolkit include specific plans for structuring a group that interacts with government?

Position

- ☐ **Constraint** The toolkit ought to provide general guidelines as to how a design advising body may be structured.
- ☐ **Objective**
- ☒ **Directive**

Alternative Position

- ☐ **Constraint** The toolkit ought to provide a specific plan detailing the structure of a design advising body.
- ☐ **Objective**
- ☒ **Directive**
- ☐ **Constraint** The toolkit should not address how an advising body should be structured.
- ☒ **Objective**
- ☐ **Directive**

Background and Arguments

To achieve results on a global scale, the policy design toolkit must accommodate interaction with many types of governments and institutions. Specific recommendations for an advising body based solely on the structure of any one government could prove to be a barrier to adoption within other political structures. This requirement for generality need not, however, prevent us entirely from addressing the issue of how such a body may be implemented. In fact, some direction in this area will undoubtedly lead to faster implementation.

In researching the toolkit, many governmental structures can be studied and compared. Using this knowledge, very general recommendations for the structure of an advising body can be made. By defining this structure in broad strokes, the toolkit maintains the desired adaptability without requiring each set of implementers to start from scratch.

Defining Statement		Issue Toolkit contents	5
Project Research for Policy Design Synthesis	Question at Issue Should the toolkit include non-design tools as well as design tools?		
Originator Clinton Barth			
Contributors	Position <input type="checkbox"/> Constraint <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	The toolkit should contain non-design tools to provide designers the skills required to interact with government and policy makers.	
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	To maintain simplicity and consistency, the toolkit should contain only design related tools.	

Background and Arguments

Design and policy making are two very different worlds. The innovative methods employed by designers are very different then the more traditional models of thinking that policy makers employ. In order to minimize friction between parties, a complete design toolkit should also offer tools to help the parties work together.

Most designers will not be familiar with the environment of the large organizations, institutions and governments involved with policy making. In order to maximize effect within these organizations, a complete design toolkit must contain tools that allow designers to better interact with policy makers, as well as introduce them to the policy making process. Such tools include negotiating, and relationship and trust building skills to better equip designers to navigate unfamiliar situations.

Likewise, most policy makers will be uncomfortable with design methods and thinking. The practices and tools of designers will be extremely foreign to many of the organizations that would best benefit from design tools. In order for a design toolkit geared towards policy makers to be effective, it must include not just advanced planning tools, but also tools that will act as an introduction to design thinking and methods.

Defining Statement		Issue Costs	6
Project Research for Policy Design Synthesis	Question at Issue Should project resources or time be limited by cost?		
Originator Clinton Barth			
Contributors	Position <input type="checkbox"/> Constraint Due to importance of the issues at hand, cost must be considered secondary to effectiveness. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint To make the tools more accessible to more agencies, there should be an attempt to keep implementation costs low. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

When it comes to worldwide environmental concerns, we are already fighting an uphill battle. The opportunity for small changes in policy has passed, leaving worldwide, sweeping policy overhauls as the only resort for creating any real effect. For these policies to be both effective and timely, they require significant investments of money.

Our resources are being depleted at an increasing rate, making the need for change more immediate as time passes. Any major policy research initiative must be undertaken in the immediate future, with a premium placed on timeliness.

Research must not only be conducted quickly, it must also be complete and able to produce effective results. Sacrificing quality for the sake of budget threatens chances of success. At this advanced stage of environmental decay there may be only one opportunity for an initiative of this size, and its success hinges on the quality of the research conducted.

Furthermore, changes at a small or local scale would not have any measurable effect on what has become a global trend. In order to make any distinct changes at a global level, we need to contact policy makers at global corporations and large governments. Working at such a large scale requires increased investment of time, equipment and resources.

Defining Statement		Issue Distribution	7
Project Research for Policy Design Synthesis	Question at Issue How will the toolkit be distributed?		
Originator Clinton Barth			
Contributors	Position <input type="checkbox"/> Constraint The design toolkit should be locally hosted so designers can access it without internet access. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint The design toolkit should be web based so that designers will always have the most current version. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

In order for the design toolkit to be most effective, designers must have easy access to the most current version of the toolkit at all times. This creates an interesting problem, as these two goals are seemingly in opposition.

Since designers are typically early-adopters, it is safe to assume that the people using the toolkit will also use a computer as part of their daily work. This makes a digital version of the toolkit the obvious choice as it will lower the distribution cost associated with paper versions such as printing, mailing and updating, as well as make distribution of tools and information between the users of the toolkit and others an easier task.

A web based application would provide the benefit of ensuring that users have the most current version of the kit. However, it also requires users to have access the internet whenever they are using the tools. While it can be assumed that they will have access, this has the potential to be a severely limiting factor to users in the field.

A locally based application, one that runs entirely on the user's computer, removes the need for internet access but also removes the ability to have instant and system wide updates to current versions. However, due to the low frequency of revision, the benefits of this model outweighs the drawbacks.

Defining Statement		Issue Geographical Scope	8
Project Research for Policy Design Synthesis	Question at Issue How large should the geographic scope of the policy design toolkit be in terms of its effectiveness on policy making?		
Originator Hyunee Jung			
Contributors 9 Sept., 2005 13 Sept., 2005	Derrick Kiker Clint Barth	Position <input type="checkbox"/> Constraint Scope should be scalable up to the global level in order to effectively deal with large scale problems of global proportions. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	
Sources McCarthy, Michael. Global Warming in Africa: The Hottest Issue of All. The Independent. June 20, 2005.	Alternative Position <input type="checkbox"/> Constraint Scope should be primarily national or regional because governments and many organizations at these levels are more easily accessible to change. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

In order for policies to have the maximum effect possible, they need to be able to be implemented by the global community and therefore have global scope. Some problems are and can be solved at the national or regional level, but we should focus on the global level in order to be scalable up to the global level. Pressing problems such as global warming, population growth, and resource depletion are so large in scale that efforts by individuals, communities, or even nations will not be able to make the urgent improvements that are needed. Even if some nations and regions rallied together to assist in these matters, they will not have the right or power to prevent other countries from further worsening the problem. Actions by some have far reaching, devastating consequences as developed nations and corporations continue to use limited natural resources, and underdeveloped countries mainly suffer from the results.

Current policy attempts to help underdeveloped countries deal with poverty through debt relief. "Minor enhancements of debt relief pale into insignificance compared to the negative impacts of global warming. Many places in Africa are overwhelmingly dependent on rain-fed agriculture and so they are vulnerable to even the early phases of climate change: any slight exaggeration of peaks and troughs of climatic extremes hits them instantly (McCarthy 2005).""Policies to end poverty in Africa are conceived as if the threat of climatic disruption did not exist. Nicola Saltman of the World Wide Fund for Nature added: All the aid we pour into Africa will be inconsequential if we don't tackle climate change (McCarthy 2005)."

Shortsightedness and a refusal to view problems from their source will only aggravate the problems and cost more in the long run. The country of Mozambique pleaded for aid to build coastal defences, but was under-funded. As a result, after the floods hit Mozambique, the world had a huge disaster-relief bill (McCarthy 2005). Many policies implemented on a smaller scale are then also implemented on a larger scale, but going from small scale to large scale is often not as feasible or appropriate because the larger problem is still being viewed from a small scale. However, going from a large scale problem to a small scale problem merely narrows the scope, so there is no loss of information. Good intentions on a smaller scope may provide temporary relief and be easier to implement, but the urgent and large scale problem of global warming and its many consequences requires a global effort.

Defining Statement		Issue Initiation	9
Project Research for Policy Design Synthesis	Question at Issue How should the research project be initiated?		
	Originator Derrick Kiker		
Contributors		Position <input type="checkbox"/> Constraint The research project should be initiated by an executive mandate from within government. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	
Sources http://www.designcouncil.info/govtdesigntool-kit/		Alternative Position <input type="checkbox"/> Constraint The research initiative should be initiated as soon as funding is secured by any means. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	

Background and Arguments

In examining the relative success of related initiatives, it rapidly becomes clear that the single most reliable precursor to success is a unified effort. The most effective means of quickly aligning priorities and simultaneously securing funding is an appeal to the executive. The design council's success in implementing a toolkit to help civil servants apply design tools to policy making and service management can be traced to a mandate from British Prime Minister Tony Blair. In 2001 he was convinced that "used strategically to help in the development, delivery and communication of policies and services, design can help to deliver important benefits across the whole of government." (design council website) By aligning government resources as part of the "modernizing government programme," the prime minister enabled the government design toolkit to become adopted much more rapidly than the design council could have on its own. To this end, the campaign for policy design synthesis should take up as one of its goals educating executives as to the benefits of the application of design thinking and appealing to them for support of the research initiative.

Defining Statement		Issue Interface Structure	10
Project Research for Policy Design Synthesis		Question at Issue Will the structure of the interface be user dependent?	
Originator Hyunee Jung			
Contributors 27 Sept., 2005 Derrick Kiker		Position <input type="checkbox"/> Constraint The interface of the toolkit should be user independent <input checked="" type="checkbox"/> Objective to allow maximum use of multiple tools. <input type="checkbox"/> Directive	
Sources Gorb, Peter. The Future of Design and its Management. In Design Management, ed. Oakley, Mark, 15-25. Cambridge, MA: Basil Blackwell Inc, 1990.		Alternative Position <input type="checkbox"/> Constraint To allow sophisticated, efficient use of the toolkit, tools <input checked="" type="checkbox"/> Objective should be tailored to expert users. <input type="checkbox"/> Directive	

Background and Arguments

One of the goals of the toolkit is to have many different types of users. Designers, researchers, policy makers, etc all have their own respective tools and methodologies which usually require in-depth knowledge in their fields. While such diverse expert knowledge is needed, when using tools together, this can be detrimental.

"...In many organizations studied, a great many people who are not designers are engaged in designing; that quite often they are not aware that they are designing; and that they not necessarily agree that what they do is designing once they are made aware of it. Furthermore the process seems to work - though better in some cases than in others. (Gorb 1990, 23)" In the case of this toolkit, the ultimate purpose is to incorporate tools of various fields for optimal policy making. Therefore many methodologies and tools of various fields will coincide due to the combination/modification of tools to the same end goal. The next natural step is to create a interface so expert knowledge is not needed to use the toolkit, so everyone will be on equal footing.

The result is an increase in synergy between team members and team collaboration as members are not divided in their tasks and specialized knowledge.

It is also more effective for all users to go through the same process using the same tools from beginning to end. Communication is maximized and problems minimized, because people will use the same jargon and methodology. Also with such a toolkit, it will be radically new to everyone, and everyone will need to learn together.

Defining Statement		Issue Interface	11
Project Research for Policy Design Synthesis	Question at Issue How will users interface with the toolkit?		
Originator Hyunee Jung			
Contributors 27 Sept., 2005 Derrick Kiker	Position <input checked="" type="checkbox"/> Constraint The interface of the toolkit must be web based to allow dynamic access to the tools. <input type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint The interface of the toolkit could be print materials, so it can be used anywhere on any level and not technology dependent. <input type="checkbox"/> Objective <input checked="" type="checkbox"/> Directive		

Background and Arguments

The toolkit will be large scale and therefore have many tools and methodologies. The purpose is to allow tools to be used on a global scale as well as a local scale.

The array of tools will not be static and many of them need iterations in order to be effective. Many design tools are iterative and are constantly changing. Even tools that have separate steps have blurry lines between the steps as transitions are considered equally as important.

There are also multiple steps to the process of using the toolkit, and simultaneous use of different tools are also possible. Maximum use is through a constantly changing set of tools at any time.

With tools from multiple fields and many users involved as well as the reasons stated above, the toolkit should be dynamically access. The best option is the web based interface.

Paper based interfaces only slows down users and discourage multiple, simultaneous, dynamic, and iterative use of the toolkit. In the past, when many did not have computers, paper based interfaces may have been more practical, but now most users even have laptops, so they can take their toolkit with them to different locations. Therefore web based interfaces are optimal for the toolkit.

Defining Statement		Issue Partnership	12
Project Research for Policy Design Synthesis	Question at Issue Who should we partner with to develop design research tools?		
Originator Gil-Ock, Lee			
Contributors 13 Sept., 2005 Clinton Barth	Position <input type="checkbox"/> Constraint To improve access to policy decision makers, partnership should be implemented with both academics and professionals in design and policy making. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources J.Bleeke, "The Way to Win in Cross-Border Alliances," Harvard Business Review, 1991.	Alternative Position <input type="checkbox"/> Constraint Partnership should be undertaken with academics to develop research tools more theoretically. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive <input type="checkbox"/> Constraint Partnership should be undertaken with professionals in the real experience to develop research tools more practically. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

On the one hand, due to limited resources, design professionals have a couple of weaknesses in terms of collecting resources applicable to policy formation at institutional and governmental level and are occasionally too creative to be practical in decision making at the policy making level. On the other hand, academics are rather theoretical and sometimes too abstract in the way of approaching the real world. For this reason, in order to be mutually efficient, we should partner with both academics and design professionals in the real arena.

The wealth of diverse background knowledge by balanced cooperation with other experts at the policy making level improves skills through working with a partner. However, if the relationship leans too much to either academics or design professionals, it is highly likely that the result of the research will be methodologically imbalanced in terms of developing the research and decision making.

Partnerships with both academics and design professionals will bring better understanding, good resources and creative design methodology. This relationship should be pro-actively managed learning agenda while maintaining trust-based relationship and share clear governance structure and compatible strategic objective. Subsequently, it will strengthen a content of design theory, processes, methods and tools and eventually affect decision makers more effectively. Therefore, well-balanced combination of academics and design professionals should be integral part of our research process.

Defining Statement		Issue Policy Approval	13
Project Research for Policy Design Synthesis	Question at Issue How should we address the issue of policy approval?		
Originator Rishabh Singh			
Contributors	Position <input type="checkbox"/> Constraint The policy design toolkit should incorporate features to address issues with policy approval. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint The Policy Design Toolkit should remain focused only on the policy formulation process. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

Policy according to the Merriam-Webster Dictionary is defined as “a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions” The definitive course becomes a policy when it is selected and approved by the decision makers.

There have always been situations in history when some of the most appropriate policies for that time were left to fight on their own merit and their intent of greater good for all. Most of them never made it through the world of politics and bureaucracy

All good policies must not only be designed for their greater effectiveness must also be engineered to be able to achieve the goals for its inception.

As design thinking is new concept in policy design, even more emphasis would have to be laid on the acceptance of this methodology and hence the process of policy approval becomes even more important for this initiative. This would be best achieved by treating it as a separate mode of the system.

Defining Statement

Project

Research for Policy Design Synthesis

Originator

Derrick Kiker

Contributors

Sources

Team Deliberations

Question at Issue

How should research goals be prioritized?

Position

- ☐ **Constraint** The primary objective of the research team should be to complete the research as thoroughly as possible.
- ☒ **Objective**
- ☐ **Directive**

Alternative Position

- ☐ **Constraint** The research team should primarily strive to complete the project in the most timely manner.
- ☒ **Objective**
- ☐ **Directive**

Background and Arguments

While there are currently very pressing problems in the world requiring new policy to be developed, rushing the research process to meet artificial deadlines presents too great a risk. In developing a policy, the foremost thing we ask of our lawmakers is to be thorough; thorough in their investigation, thorough in their deliberation and even thorough in their implementation of the policy. No less should be asked of the researchers developing the tools for policy synthesis. Producing a toolkit that is as complete and of as high a quality as possible is crucial to its adoption. Not all parties will welcome the idea of applying "design thinking" to policy making and any early failure could be seized as an opportunity to abandon the initiative. To minimize this risk the research should be conducted as thoroughly as possible.

Defining Statement		Issue Proven Performance	15
Project Research for Policy Design Synthesis		Question at Issue Should previously proven real world performance be a condition of tools being included in the toolkit ?	
Originator Hyunee Jung			
Contributors 16 Sept., 2005 16 Sept., 2005 Derrick Kiker Clint Barth		Position <input type="checkbox"/> Constraint Tools with proven real world performance should be considered over purely academic tools due to the far reaching, large scale consequences. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	
Sources Bardach, Eugene. The Eight-Step Path of Policy Analysis (A Handbook for Practice). Berkeley, Berkeley Academic Press, 1996.		Alternative Position <input type="checkbox"/> Constraint All tools, proven and unproven, should be considered for the toolkit since there are many difficult problems and considering all options may lead to the best decision. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive	

Background and Arguments

Many policies are large in scope and therefore have far reaching consequences. Choosing the optimal policy is a serious process which requires great thought. Even though a policy or a tool used by policy makers may sound great in theory, it often fails under conditions of actual field implementations (Bardach 1996, 32). Therefore tools with proven real world performance are robust and often adaptable to succeed despite unforeseen changes.

Some problems in the world are new and have no suitable tool or policy. When faced with such a problem, one should not only consider successfully implemented tools, but a new tool of unknown performance. A modified version of a successful tool is also an option. However when faced with the situation of choosing between two equally suitable tools, a new tool and a successful tool, one should consider the previously successful tool. Also evaluations and simulations of future scenarios should always follow the selection.

Not only are such proven success more credible, but policy makers and organizations are used dealing with real life situations versus academic theories. They will be more likely to accept the tools and view new tools with misgivings.

In the long run the purpose of the toolkit is to gain as well as maintain access, and this requires good advice through trustworthy tools.

Defining Statement		Issue Research Team	16
Project Research for Policy Design Synthesis	Question at Issue How will the research team be assembled?		
Originator Gil-Ock, Lee			
Contributors 30 Sept., 2005 Derrick Kiker	Position <input type="checkbox"/> Constraint The research team should be a group of highly qualified graduate students in the fields of policy making and design. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint The research team should be a group of experienced professionals and academics from policy making and design, selected from the top schools and professional organizations. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

While it is tempting to specify that only the best of the best will contribute to the research initiative, reality dictates that we begin work more modestly. Given the probabilities that funding will be sparse and that the most successful academics and professionals will already be otherwise employed, it is more reasonable to assemble a research team composed of highly qualified graduate students and led by one more experienced academic. A research team of this composition can be assembled much more quickly and at significantly lower cost.

A graduate student research team also has other advantages beyond feasibility. To a certain extent, the project requires thinking about policy formation in a completely different way. "Less experienced" researchers may be more likely to accept new ideas having less invested in the standard model of how policy is made. Additionally, using graduate students will foster ownership in a new generation of policy designers which could significantly improve adoption and implementation.

Defining Statement		Issue Initial Target Audience	17
Project Research for Policy Design Synthesis	Question at Issue Who is the initial target audience for introducing the policy design tool kit?		
Originator Rishabh Singh			
Contributors	Position <input type="checkbox"/> Constraint Governmental institutions should be considered as the target audience for introducing the tool kit. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint Commercial institutions should be considered as the target audience for introducing the tool kit. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

A clear understanding of the target audience for introducing the tool kit is an important factor in designing the elements and priorities for the design of the policy making toolkit.

The focus on commercial institutions for introducing the tool kit would have the obvious advantages in faster acceptability, implementation and validation. But the policy formulation process is more focused on the immediate goals of the organization making the scope of the tool kit too narrow for the initial intent of this initiative.

Decision making attains the most fundamental role when performed at a level affecting the largest amount of individuals and areas within the society. The government has the resources and infrastructure to initiate guided and forced organization of concepts and relevant relationships for the better implementation of the policy.

Furthermore, the access to the latest technology and association with research organizations both academic and professional makes government institutions a profound user of this tool kit.

The term of the efforts undertaken by the commercial institution tend to be largely influenced by the market dynamics, thereby introducing an amount of uncertainty. The motivation other than financial makes the empowerment at the government level more credible and dirigible by the people.

Global adaptation and integration of the developed tool kit can gain positive impetus due to the reliability within the increased bilateral initiatives and cooperation between various governments and economies.

Defining Statement		Issue Technology	18
Project Research for Policy Design Synthesis	Question at Issue What is the role of technology in the tools developed for the policy making process?		
Originator Rishabh Singh			
Contributors	Position <input type="checkbox"/> Constraint The extent of the utilization of technology should be balanced by developing both the hi-tech and low-tech utilities and tools. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint There should be maximum utilization of technology within the tools developed. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive <input type="checkbox"/> Constraint There should be minimum utilization of technology within the tools developed. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

Technology affects our lives in a thousand of different ways. Today, It is dictates the dynamics of decision making at all levels and fields more than ever. In the context of the project at hand, technology will have a definite influence on some very important issues.

Heavy utilization of technology would provide the system with the advantages of speed, efficiency and networking. However, it would also have a limiting influence on further issues of system adaptability, international cooperation and compatibility, partnerships with other institutions, accessibility to utilities and the costs incurred. The demands placed on the user would steepen the learning curve and intensify training. Additionally, too high great a dependence on technology could render the toolkit kit obsolete as technology tends to re-invent itself into new standards.

The system with low dependency on technology addresses the issues of adaptability, compatibility and accessibility in a positive manner, but lacks the ability to integrate the system apart from severely compromising the other obvious advantages of technological development. This approach will also raise doubts on the scope of the future implementation of the solution set.

Hence the proposed direction must balance the use of technology. It must incorporate both hi-tech and low-tech tools in order to achieve the majority of the goals and provide higher sustainability for the future the future.

Defining Statement

Project

Research for Policy Design Synthesis

Originator

Derrick Kiker

Contributors

12 Sep., 2005

Charles Owen

Question at Issue

Who should be the users of the tools to be developed?

Position

- ☐ **Constraint** The toolkit should be designed to accommodate all users on a policy making team including design advisors, policy makers and design-led teams.
- ☒ **Objective**
- ☐ **Directive**

Sources

Team Deliberations

Alternative Position

- ☐ **Constraint** The toolkit should be designed for use by design professionals who will be advising policy makers.
- ☒ **Objective**
- ☐ **Directive**
- ☐ **Constraint** The toolkit should be designed for use by policy makers without assistance from professional design advisors.
- ☒ **Objective**
- ☐ **Directive**

Background and Arguments

An understanding of the user is fundamental to the development of a policy design toolkit. Design tools developed for design professionals may be inappropriate for use by policy makers. Likewise, policy making tools developed with designers in mind, could be of little use if design professionals are not the primary users.

Designing a toolkit for a limited user base offers distinct advantages. Cost and time for development can be reduced by limiting the tools to those most usable to the primary user. Specialization also makes it easier to design for higher levels of performance. A toolkit that can be utilized by policy makers without the aid of a design professional can be more widely and rapidly applied, while a toolkit that requires the participation of a design professional could provide quality control essential to rapid adoption.

Despite the advantages of specializing the toolkit to a single user base, assembling tools for all types of users including professional design advisors, policy makers and design-led teams should be the goal. As development of the toolkit is primarily an exercise in information architecture, the cost of adding more tools should be minimal. A toolkit with tools specialized for a variety of task/user/setting combinations will meet the needs of the broadest possible user base and will be most able to evolve with changing conditions.

Defining Statement		Issue Usage Mode	20
Project Research for Policy Design Synthesis	Question at Issue What should be the usage mode for the tool kit ?		
Originator Rishabh Singh			
Contributors	Position <input type="checkbox"/> Constraint The tool kit usage mode should allow the user to refer it either in parts or as a complete process, as and when the need arises. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		
Sources Team Deliberations	Alternative Position <input type="checkbox"/> Constraint The tool kit should direct the user to use it as one complete continuous process. <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Directive		

Background and Arguments

The understanding of the usage mode for the tool kit is fundamental to the structuring and design of the tool kit. The design of the tool kit for its usage as one complete continuous process would help in attaining the optimum quality of results by directing the system in the intended way. But this approach would restrict the use of the toolkit in situations where the process of policy formulation has advanced from the basic stage. The design of the tool kit as one single continuous process would make it difficult in implementing it within organizations having a different policy formulation structure. Integration and compatibility issues may also arise while implementing the tool kit at an international level.

Providing the users with the flexibility to use the tool kit as and when required will enable the application of the tool kit to various other scenarios. It will also reduce the problems with issues of integration and compatibility as the users would be able to selectively use the tools which suit their organizational structure and problem. Further, this approach may also encourage borrowed users to use the tools in fields other than policy making, thereby promoting the application of design thinking in all fields.

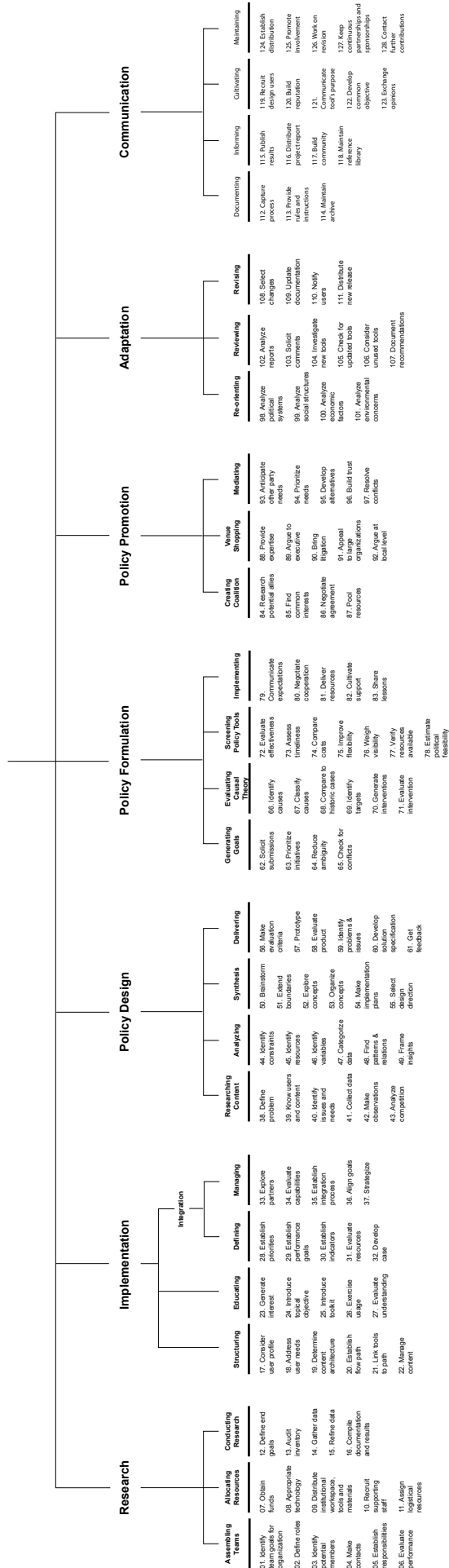
The best approach would be to incorporate both the approaches within the usage mode of the tool kit so as to allow the application of the tool kit for optimum results and also maximum reach.

Function Structure

Research for Policy Design Synthesis Function Structure

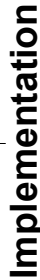
October 12, 2005

Research Initiative for Policy Design Syn- thesis



October 12, 2005

Research

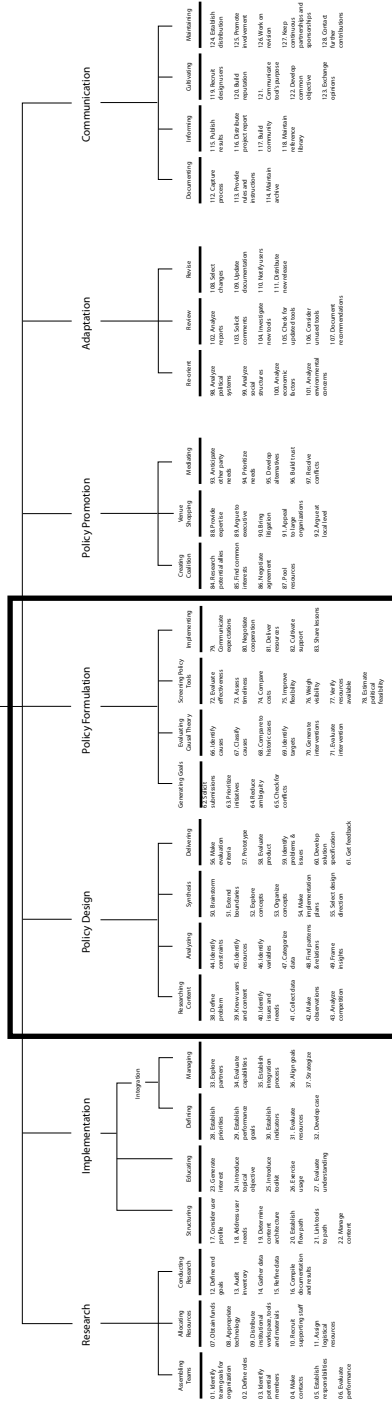


Research for Policy Design Synthesis

Function Structure

October 12, 2005

Research Initiative for Policy Design Synthesis



Policy Design

Policy Formulation

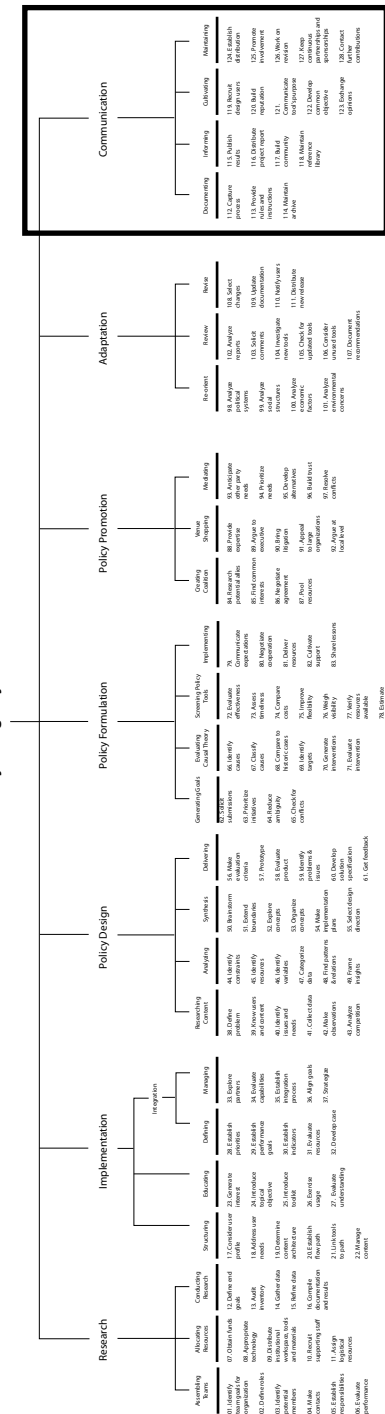
Researching Content	Analyzing	Synthesis	Delivering
38. Define problem	44. Identify constraints	50. Brainstorm	56. Make evaluation criteria
39. Know users and content	45. Identify resources	51. Extend boundaries	57. Prototype
40. Identify issues and needs	46. Identify variables	52. Explore concepts	58. Evaluate product
41. Collect data	47. Categorize data	53. Organize concepts	59. Identify problems & issues
42. Make observations	48. Find patterns & relations	54. Make implementation plans	60. Develop solution
43. Analyze competition	49. Frame insights	55. Select design direction	61. Get feedback

Generating Goals	Evaluating Causal Theory	Screening Policy Tools	Implementing
62. Solicit submissions	66. Identify causes	72. Evaluate effectiveness	79. Communicate expectations
63. Prioritize initiatives	67. Classify causes	73. Assess timeliness	80. Negotiate cooperation
64. Reduce ambiguity	68. Compare to historic cases	74. Compare costs	81. Deliver resources
65. Check for conflicts	69. Identify targets	75. Improve flexibility	82. Cultivate support
	70. Generate interventions	76. Weigh visibility	83. Share lessons
	71. Evaluate intervention	77. Verify resources available	
		78. Estimate political feasibility	

Research for Policy Design Synthesis Function Structure

October 12, 2005

Research Initiative for Policy Design Synthesis



Communication

Documenting	Informing	Cultivating	Maintaining
112. Capture process	115. Publish results	119. Recruit design users	124. Establish distribution
113. Provide rules and instructions	116. Distribute project report	120. Build reputation	125. Promote involvement
114. Maintain archive	117. Build community	121. Communicate tool's purpose	126. Work on revision
	118. Maintain reference library	122. Develop common objective	127. Keep continuous partnerships and sponsorships
		123. Exchange opinions	128. Contact further contributions

Design Factors

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Promotion

Activity

Creating Coalition

Originator

Clinton Barth

Contributors

Sources

Birkland, Thomas A. An Introduction to the Policy Process. New York, NY: M.E. Sharp, 2001

Associated Functions

- 47. Categorize data
- 48. Find patterns and relationships
- 49. Frame insights

Observation

Arguments for policy change can be made stronger by joining with other organizations. However, it is not always easy to find the proper allies.

Extension

In order to provide our policy agendas with more power, we must attempt to team up with other organizations that have similar goals. However, there will be many times when there is a distinct lack of obvious allies. In these instance, it is important to dig a bit deeper in order to find a way to motivate other organizations.

A good example of this is the Exxon Valdez spill of 1989. For years, fishers and environmental groups had been at odds with one another: fishers want to be able to fish as much as possible while environmentalists want to minimize the damage they do to the environment. The core beliefs of these two groups are in opposition, and therefore a coalition would seem unlikely.

However, after the oil spill, these two organizations came together to keep environmental policy change on the agenda. Their common concern for the environment brought allowed them to come together, pool their resources and gain attention to their issues. In this case, two seemingly opposing groups were brought together by a common interest, the welfare of the environment (Birkland).

Design Strategies

Reframe the policy benefits

Expand frame of search

Solution Elements



Benefit Investigator



Partnership Exploration



Networking Toolset

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Promotion

Activity

Conducting Research

Originator

Clinton Barth

Contributors

Sources

Birkland, Thomas A. An Introduction to the Policy Process. New York, NY: M.E. Sharp, 2001

Associated Functions

47. Categorize data
48. Find patterns and relationships
49. Frame insights

Observation

When gathering the design methods for the toolkit, there needs to be a method for determine the value of existing tools.

Extension

The research phase, and particularly the gathering of design tools, is arguably the most important phase of the research initiative. The success of this phase determines the effectiveness of the toolkit as a whole. If the research team does not pick the correct tools, the toolkit will not be able to have any measurable impact on policy creation.

However, it is unlikely that members of the research team will have a high level of familiarity with all of the design tools they have to choose from. They main charge is to locate and gather design tools, but they have little or no ability to judge their effectiveness.

This is especially true of new or lesser known methods. But in a field that places high value on innovation and new methods, it would be unwise to disqualify a tool due to a lack of history or proven success.

In order to allow the design researches to make informed decisions, we must provide them with ways of determining not just a tools relevance, but also its effectiveness.

Design Strategies

Rate existing tools' effectiveness

Survey experts for opinion

Solution Elements

S

Tool Targeting

E

Designer Database

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Promotion

Activity

Mediating

Originator

Clinton Barth

Contributors

Sources

Associated Functions

Observation

When combining parties from different backgrounds, cultures, governments or religions, there are bound to be conflicts between their fundamental values or needs.

Extension

Because the project will be used to motivate and inform policy at the international or global level, participants will likely be from varying locales. This will result in distinct differences in culture, belief and value.

Further, conflicts that are based within culture, religion or political beliefs will run deep and not be easily dissolved. These ideas are central to a person identity and therefore will resist change.

The problem presented is not so much one of conflict resolution, but more one of conflict understanding. In order to avoid cultural conflicts, a deep understanding of all parties involved is critical. If a conflict can not be avoided altogether, understanding who the other party is provides potential to also understand ways of dealing with conflicts.

Design Strategies

Minimize conflict

Deal with conflict

Solution Elements



Cultural Education



Negotiation Tools

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Promotion

Activity

Venue Shopping

Originator

Clinton Barth

Contributors

Sources

Birkland, Thomas A. An Introduction to the Policy Process. New York, NY: M.E. Sharp, 2001

Associated Functions

Observation

Litigation is one strategy for giving a policy voice. However, in order to bring litigation, a suit must first be established.

Extension

One of the many ways to provide a policy with a venue, is to bring litigation against a government or organization. This often has the effect of bringing immediate attention to the policy at hand, and can even force an unwilling party to accept a new policy against their will.

An example of this was Brown v. Board of Education. In order to create change in the country's civil rights policies, a suit was brought against the Board of Education suing for equal rights. In this way, the matter of equal rights for African-Americans was immediately thrust into the spotlight and eventually created a huge shift in the country's civil rights policies. (Birkland).

In order for this strategy to be used effectively, the litigator must have a strong suit to bring to court. If the case is weak, it will have little effect aside from destroying the credibility of the new policy and its proponents.

A strong case will not only have the power to bring attention to the proposed changes, but could also ultimately be responsible for making the changes law. For this reason, bringing suit is one of the most powerful and direct ways to effect policy.

Design Strategies

Collect relevant case history

Identify controversial areas within current policy

Solution Elements

E Case Finder

E Policy Strength Indicator

Design Factor

Project

Research for Policy Design Synthesis

Mode

Research

Activity

Assembling teams

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

03. Identify potential members

Observation

When team members are brought together for the first time, even though their initial work and education qualifications may seem ideal, the team synergy is below par.

Extension

Resumes which layout a person's education and work experience are often the most referenced when hiring a new employee. Likewise, a person's education background and work experience are considered the most important qualifications when composing a team. Depending on the project one wants to have a diverse group with knowledge and experience spanning across all necessary fields. However, even with careful considerations, the teams composed may not work well together. Without working together with a person, one cannot know fully how that person will function on a team.

Elusive qualities, such as personality, specific skill sets, team dynamics, are hard to measure through interviews, resumes, and recommendations. These qualities are often as important or more so than the traditional qualifications that employers look at.

Design Strategies

Gain insights into personalities

Look beyond the surface into the person's core abilities

Pick up on potential team dynamics

Solution Elements



Skill/personality assessor

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Analyzing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

- 47. Categorize data
- 48. Find patterns and relationships
- 49. Frame insights

Observation

Up till the researching phase, the problem should be treated broadly. However, when analyzing one needs constraints to focus on what exactly is needed.

Extension

The jump from the researching phase to the analyzing phase is a big one. The broad gathering of data is now narrowed to filter out the unrelated data and to focus on the important data. This jump needs to set constraints and guidelines. Without a change in operating mode, the designer will wander off course and not be able to focus on the problem. The designer needs to identify the goal and segment the problem/solution into comprehensible parts. Then the parts must be prioritized so the designer knows where to focus their attention.

Design Strategies

Group problem into parts

Set priorities for parts of a problem

Solution Elements

E Cluster analysis

E Web/gap analysis

E Design briefs

E PESTE analysis

E Weighted objectives methods

E Functional assessment

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Researching Content

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

41. Collect data

Observation

The pace of the world is such that gathered data can rapidly become old and useless.

Extension

The world operates at a fast pace. Not only must products be developed and released quickly, but trends also change faster than ever. However, the research phase of a project is more important than ever. The balance between allotting the needed time for research and the quick development for products is needed. Often companies do research years ahead of their product development phase to stay ahead of their competition.

Companies or institutions without the large, established research department are at a disadvantage. They need to be able to keep pace with the rapidly changing world and back up their products with high quality, accurate, and user focused research.

Design Strategies

Foresee data

Anticipate changes

Solution Elements

S Trend analysis

E Design briefs

E PESTE analysis

E Ansoff matrix

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Researching Content

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

40. Identify issues and needs

Observation

A problem can have both internal and external issues and needs. Without knowing both, the solution can be shortsighted.

Extension

A designer or policy maker often approaches problems that would not normally affect their lives. They are not familiar with the problem and do not know of internal and external issues and needs associated with the problem. In order to better serve the user, they need to be able to envision how the user lives and how certain policies may affect the user. Not only the user but also outside influences must be considered. The user may originally be helped by certain policies, but over time there may be harmful external effects. Judging and evaluating a user from afar only creates barriers and does not create effective solutions.

For example, many car drivers tend to speed at a certain intersection. As a result there are many car accidents in that area. Only by understanding the user and the circumstances behind why many users speed in that area, can one make effective policy to prevent further accidents.

Design Strategies

Identify external issues

Identify internal issues

Identify cause and effect relationships

Solution Elements

E PESTE analysis

E User trips

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Researching Content

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

39. Know users and content

Observation

When there is a broad range of users and content, lack of time and resources prevents a high quality, comprehensive research agenda.

Extension

Often large projects cannot invest the appropriate amount of time and resources into a fully conclusive research agenda. With a lack of resources, the quality and accuracy of the research may suffer. If one was to do research on the habits of users when watching television, the user population is too large to do individual studies. Likewise when doing a study on one particular type of user, the content may be too large to do a comprehensive test. In the policy world, oftentimes regulations may affect many different users directly and indirectly. A thorough understanding and an accurate representations of a broad range of users and content are needed during the research phase of a project.

Design Strategies

Plot characteristics

Group similar characteristics together

Solution Elements

E Cluster analysis

E Scenario building

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Researching Content

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

38. Define problem

Observation

Without limits on the scope of the problem, constant attempts are made to over step the bounds of the problem.

Extension

Problems can have multiple aspects. The scale of the problem and solution can be all encompassing or realistically have limits. A problem is often made of different parts and each part can effect or is influenced by other parts. Without setting boundaries, one is constantly butting heads and arguing whether a certain part should be considered part of the scope of the problem. To avoid time consuming debates and energy, at the beginning of the project, one should clearly lay out the parts and state the scope of the problem.

The problem set against a relevant background with potential problems that might arise will also present a clear idea to the people who will implement the problem. The thinking that went behind the idea will help the people who are actually carrying out the idea.

Design Strategies

Understand the problem

Understand the scope of the problem

Lay out parts and causes of problem

Solution Elements

E Design briefs

E Fishbone diagram

E Conceptual plan

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Researching Content

Originator

Hyunee Jung

Contributors

Sources

Dobers, Peter. Translation and Transcription in Development Projects: From Vague Problems to Clear-Cut Solutions through Project Organizing. GRI-report (June 1999).

Associated Functions

38. Define problem

Observation

A vague, open-ended problem confuses designers in the exact nature of the problem and the method of how to approach the problem.

Extension

The world is full of complex problems that designers are capable of dealing with. They have previous experience and known methodologies dealing with such problems. On the other hand, there are new problems that the world has not seen or had to deal with. Problems in society arise that do not fit into traditional structures of public organizations. Such problems become especially problematic if there is no adequate capacity to deal with them (Dobers 1999).

Designers are often at a stand still when dealing with such problems. The time and effort first to understand the problem and then to delve into the problem take up most of the resources in such projects. When considerable resources go into a project, and if the result is not conclusive, projects may be set aside until there are facilities that can effectively deal with such a problem.

Having designers with varied backgrounds and experience could be one step in shortening the understanding the problem stage. They will be able to draw insights from other fields not necessarily similar to the current problem.

Design Strategies

Understand the problem

Understand the scope of the problem

Identify capable designers

Clearly state detailed directives

Solution Elements

S Skill/personality assessor

S Large network of professionals

E Design briefs

Design Factor

Project

Research for Policy Design Synthesis

Mode

Research

Activity

Assembling teams

Originator

Hyunjee Jung

Contributors

Sources

Harris, Robert, A. Creative Problem Solving: A Step-by-Step Approach. Los Angeles, Pyczak Publishing, 2002.

Associated Functions

01. Identify team goals for organization
02. Define roles
05. Establish responsibilities

Observation

Hidden assumptions occur when team members keep their preconceived notions to themselves. The goals of the project and means to achieve such goals often clash due to a miscommunication of assumptions.

Extension

Assumptions are needed when many people collaborate on a large project. Assumptions set limits to the problem, reflect desired values, and simplify the problem (Harris 2002). Without assumptions the scope of the problem will be too broad to tackle. However, hidden assumptions are detrimental to the team and the problem solving process. People naturally make assumptions to simplify and to put limits on complex situations. Those assumptions can vary from person to person due to a difference in work experience and culture. Hidden and different assumptions can only cause conflicts and prevent a good solution.

The problem of overlooking hidden assumptions can only hold up a project. Eventually in order to reach a consensus the assumptions will need to be revealed to eliminate conflicts. Ideally the assumptions will be agreed upon and stated clearly at the beginning of the project.

Design Strategies

Clearly state assumptions



Semantic differentials

Be given clear detailed directions



Design briefs

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Formulation

Activity

Implementing

Originator

Derrick Kiker

Contributors

Sources

Birkland, Thomas A. An Introduction to the Policy Process: Theories, Concepts, and Models of Public Policy Making. New York: M. E. Sharpe, Inc., 2001.

Associated Functions

83. Share Lessons

Observation

If effective lines of communication do not exist between implementers, lessons learned cannot be shared or capitalized upon.

Extension

Researchers have found that even the most well designed policies can fail because of "unanticipated circumstances, resistance to the policy during implementation but after enactment, and the vagaries of the political process." (Birkland 2001, 187) Because policies are not implemented with perfect simultaneity, early implementers are able to identify potential pitfalls before other implementers are at risk. If, however, there are no effective lines of communication open to share these lessons the probability of repeat failures is quite high.

Design Strategies

Provide contact information for all implementers

Establish means of communicating with all other implementers efficiently

Solution Elements



Implementer's Network

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Formulation

Activity

Implementing

Originator

Derrick Kiker

Contributors

Sources

Birkland, Thomas A.
An Introduction to the
Policy Process: Theories,
Concepts, and Models of
Public Policy Making. New
York: M. E. Sharpe, Inc.,
2001.

Associated Functions

79. Communicate Expectations
80. Negotiate Cooperation

Observation

Studies of policies that have failed indicate that one major factor in implementing policies is the sending of clear messages between policy makers and implementers.

Extension

Our policy design toolkit must take into account an important lesson: "that implementation is as much a matter of negotiation and communication as it is a matter of command." (Birkland 2001, 185) Much like a design project, a policy is planned and approved by one group and then handed over to another group to be executed. If the message sent to the implementers does not clearly reflect both the intent and the specifications of the policy, it could be executed improperly with unintended consequences or fail outright.

Design Strategies

Form implementation instructions that are comprehensive and clear

Solution Elements



Conceptual Plan

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Formulation

Activity

Evaluating Causal Theory

Originator

Derrick Kiker

Contributors

Sources

Birkland, Thomas A.
An Introduction to the
Policy Process: Theories,
Concepts, and Models of
Public Policy Making. New
York: M. E. Sharpe, Inc.,
2001.

Associated Functions

- 66. Identify Causes
- 67. Classify Causes

Observation

Because some problems are not acts of human causation, the policy tools available to alleviate them are limited.

Extension

In general, policy tools can be defined as "elements in policy design that cause agents or targets to do something that they would not do otherwise or with the intention of modifying behavior to solve public problems or attain policy goals." (Birkland 2001, 163) Because no "agents or targets" exist, policy designed in response to problems considered "Acts of God" is limited in what tools can be selected to intervene. Investigating causal theory becomes even more important in these cases because the policy is being developed in an emotionally charged atmosphere.

Design Strategies

Eliminate inappropriate interventions

Solution Elements



Intervention Limiter

Design Factor

Project

Research for Policy Design Synthesis

Mode

Policy Formulation

Activity

Evaluating Causal Theory

Originator

Derrick Kiker

Contributors

Sources

Associated Functions

68. Compare to Historic Cases

70. Generate Interventions

Observation

When faced with a problem for which there is no related case, policy makers may find themselves not knowing where to begin.

Extension

The policy design toolkit will have a variety of checks in place to insure policy designers do not waste time reinventing the wheel, but what happens when they have to invent the wheel? Evaluating causal theory in absence of related case history can be somewhat overwhelming. It is important to quickly identify and examine key issues related to the investigation. When more than one method to proceed exists, policy makers need to examine the issue and choose the method that fits best. By identifying these issues and making choices, the policy maker can make significant progress in refining the search for appropriate interventions.

Design Strategies

Solution Elements

Clarify issues related to identifying cause

Analyze issues affecting interventions for the identified cause



E Defining Statements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Educating

Originator

Rishabh Singh

Contributors

Sources

Associated Functions

Generate Interest

Observation

The users may lack interest in adopting the tool kit because of doubts on its usefulness.

Extension

Policy Design tool kit is a first of its kind initiative to provide design thinking solutions to policy making.

Policy is a very critical activity for any organization. As policy affect not only the elements of the system but also their future strategy. A bad policy can threaten the future of the organization. There may be a lack of interest within the user community because a similar tool has no been used in the past. Also the results of these tool can not be compared to any others.

Further as the usage of the tools may require some training and resources to be invested, the intended users may be hesitant about its usage.

Design Strategies

Solution Elements

Apply tool kit to problems known to them ——— **S** DEMO

Present situation of past usage ——— **E** Case studies

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Defining

Originator

Rishabh Singh

Contributors

Sources

Associated Functions

Develop Case

Observation

It is difficult to develop one proposal for different types of organizations

Extension

Policy formation is a universal activity in any type of organization. The policy design tool kit is also aimed for providing design thinking for all types of users. The true success of the policy design tool kit can be realized when it has the ability and the capacity to be integrated and adapted to the different types of institutions. The sub-mode of 'integration' attempts to address this issue.

Forming alliance with different types of institution will help in integration process of the toolkit. But due to the different types of organization, it will be difficult for the policy design tool kit to develop an single type of a frame work for integration. The needs and goals of governmental institutions may be different from commercial and non-governmental organizations

Design Strategies

Solution Elements

Tool to developing universal framework



Universal Framework tool

The tool kit should focus on forming alliance with only the most valuable partners.



Eliminating multiple by identifying right partners

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Educating

Originator

Rishabh Singh

Contributors

Sources

Associated Functions

Introduce Tool kit
Evaluate Understanding

Observation

Users coming to learn usage of the toolkit may have different skill levels.

Extension

The educating activity involves all the functions required in introducing and teaching the application of the tool kit. The typical users of the tool kit range from politic makers to design professionals.

It may be difficult to have uniform methodology in introducing the tool kit and evaluating the understanding, as the users have different level of skills, exposure and experience . The policy makers will have a better understanding of the process of policy formulation, and the designers will have better understanding of the design thinking and process and so will their familiarity and ease of use with the tools of their respective fields.

Design Strategies

Bringing the understanding of all the participants to the same level.

Teaching the only the parts that are from the other field

Encouraging people to share their experiences and skill.

Solution Elements

M Foundation Course

M Selective Curriculum design

M Collaborative Learning

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Educating

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources**Associated Functions**

Exercise Usage

Observation

The users may encounter some doubts while using the tool kit in real life problems.

Extension

Exercising on the usage of the tool kit is one of the most important aspects for the success of the tool kit among its early adopters

The education initiative for the policy design tool kit would incorporate teaching the tool kit usage in typical problem scenarios. But as the users come from different backgrounds, the exercise session may not cover all the different types of scenarios. Some situations may also force the users to adapt the tool kit to non standard application. Here the user may have some doubts in modifying the tools within the tool kit.

The exercises session however well designed, will not be able to completely represent real life situation. Also there may be certain tools whose application might be difficult to understand under simulated conditions. Hence there may be a need to help the user in these types of circumstances.

Design Strategies

Identify experienced/advanced users who could help

Encourage people to share experiences

Provide reference material

Solution Elements

M PD Mentor program

M Connect-D

M Case studies/Scenario Database

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Structuring

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Manage Content

Observation

The toolkit addresses the world of policy design which is changing continuously The toolkit needs to be regularly revised and updated.

Extension

The policies to a large part control the general intent of progress of the variables in the system. But the design of the policies themselves is determined by the external state of the system.

The initiative for policy design synthesis attempts to provide a comprehensive set of tools for imparting design thinking to the present state and type of problems. But as the state of the external factors, namely political, legislative, judiciary etc change the demands from the toolkit would also change. There may be a need for certain new types of tools and also there may be some tools which become redundant with time. Hence the toolkit would need to be regularly revised and updated to continue to maintain its usefulness.

Design Strategies

Provide users with the resources and research for developing their own tools

Establish a revision team

Encourage advanced users to submit Open source widgets (for tools) which can be shared over the policy server.

Solution Elements

E Learn and Make

E Revision Team

M Tool Plug-ins

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Managing

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Establishing Priorities

Observation

It is difficult to evaluate the applicability of the toolkit for a prospective partner due to the varying political and legislative landscapes.

Extension

The policy design tool kit has been designed based on a generalized process of policy formulation. But the policy formulation within an organization depends largely on its organizational structure or the political and legislative landscape.

This sometimes makes it difficult to evaluate the applicability and the effectiveness of the toolkit within a prospective partner scenario.

Design Strategies

Small adapt it modules of the toolkit

Solution Elements



Toolkit modules

At the initial implementation stage, consider alliance with partners having a policy formulation structure similar to the general process used for the toolkit



Isomers

A tool which deconstructs the policy structure and maps it on the general plan the toolkit has been designed onto



Map-it

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Defining

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Establishing Priorities

Observation

In the process of integration, it is important to justify the needs and establish priorities before forming an alliance. Unless there is a common agenda on the priorities, it is difficult to initiate this process.

Extension

Integration is an important element for the success of the policy design tool kit. Policy affects all the constituents or members of the system. This may involve the various levels of a single department or different departments.

Before forming alliances, it is necessary to justify the needs and establish the priorities for doing so. The success of which would require a clear understanding and a common front on the priorities established. As there are a lot of different stakeholders involved, it is difficult to form on consensus on a common list of priorities.

Design Strategies

Fair representation in establishing the priorities

Solution Elements

M

a multi-departmental team

Aid to differentiate between needs

E

Tool for enabling prioritization

Prioritization by collective consensus

M

Open forum for establishing consensus

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Educating

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Generate interest

Observation

As design thinking is a relatively new concept, the target users may not be very interested in it immediately.

Extension

The Policy formulation process is clearly defined within every organization. And though due stress may be laid on the new creative ways of addressing issues through policies; there is no process defined for applying creative or design thinking to this area.

This initiative for policy design synthesis attempts to address that by providing a toolkit and a suggested process flow to apply design thinking in policy formulation and design.

As the process for policy formulation within an institution is so fixed, the prospective users may not be interested enough to look at things from a different perspective. More so as perspective that does now come from their field of work but from the discipline of design.

Design Strategies

road shows publicity events and partner with educational institutions

Publish or present success stories

Involve the policy makers in experiencing the contributions that design thinking can bring to the design of policies by using present and past policies

Solution Elements

M Road shows

E Success id

M PD Works

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Defining

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Generate interest

Observation

There is a lack of information on prospective partners for creating alliances.

Extension

The success of this initiative for promoting design thinking to the world of policy design depends greatly on its global appeal to all types of institutions and organizations. Also it is important to lay due emphasis on forming strategic alliances in the early stages of its introduction.

Because of a lack of organizations collaborating in the field of policy design there are no prior databases of institutions for forging partnerships

Design Strategies

A database monitoring the world of Policies

Setting joint teams with well established Organizations like ICSID to search from their partner database.

Make presentation at the design hotspots of the world to get institutions interested for partnerships

Solution Elements



Policy Monitor



Team-Design



Approach and Extend

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Defining

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

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Solution Elements



Policy Monitor



Team-Design



Approach and Extend

Design Factor

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Structuring

Originator

Rishabh Singh

Contributors

Team Deliberations

Sources

Associated Functions

Address user needs

Observation

No prior knowledge about the user needs on what should be the type of the information format for structuring the toolkit.

Extension

Once the research is complete, the structuring of the toolkit is essentially a content architecture problem. The most crucial to any such problem is clear understanding of the user needs. This becomes the guiding framework in designing the end product. The initiative for policy design synthesis is a relatively first of its kinds attempt in this field and hence there is no prior knowledge of the user needs.

Design Strategies

Get the needs directly from the users

Develop insights with the help of academic institutions working in similar fields.

Solution Elements

E User Surveys

E Collaborative learning

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Delivering

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

- 58. Evaluate product
- 59. Identify problems and issues
- 60. Develop solution specifications

Observation

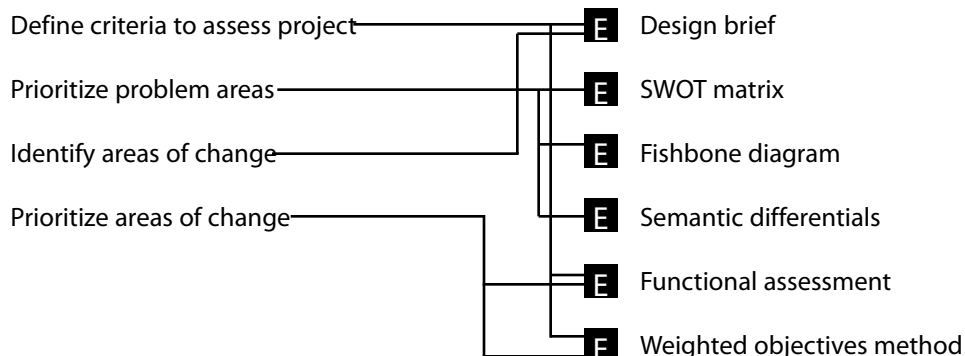
A project may have multiple problem areas and variables to test; therefore, these areas need to be prioritize and selected based on a set of criteria.

Extension

Similar to a scientific experiment, tackling a problem bit by bit gives the designer a clearer vision of what the cause and effect are. Problem areas can, therefore, be identified. Instead of applying effort to all problem areas, careful analysis and selection will result in more influential changes.

Design Strategies

Solution Elements



Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Delivering

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

57. Prototype
58. Evaluate product

Observation

The prototyping process in design is an iterative one. Besides using design sense, there are not many formal guidelines of when and how to prototype a product.

Extension

Besides using an ad-hoc method for iterative prototyping, one can approach this in a systematic, organized fashion. This way, the designers will not miss any steps or take any short cuts. Also many designers have different methods of iterative prototyping, and each has their own strengths and weaknesses. By combining the strengths in a logical flow, the process will transition more smoothly with evaluation and redesign occurring at critical times.

Design Strategies

Solution Elements

Define critical times for evaluation

Define evaluation criteria

Define iteration process



Functional assessment



Weighted objectives method

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Delivering

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

56. Make evaluation criteria
58. Evaluate product
59. Identify problems and issues

Observation

People with different backgrounds have different views which influence their priorities on projects.

Extension

Priorities are essential for team members to work effectively towards a goal. Priorities need to be defined and clearly stated before the project begins to avoid any conflicts due to misunderstandings. Members of a team can come from very different backgrounds and ways of thinking. Therefore, their priorities can also be divergent. Team members working with different priorities will not present as cohesive a product as members with common priorities.

Design Strategies

Solution Elements

Define clear objectives ————— **E** Design brief

Analyze values and goals ————— **E** SWOT matrix

Assign ranking ————— **E** ANSOFF matrix

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Synthesizing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

50. Brainstorm
52. Explore concepts
54. Make implementation plans

Observation

Generating ideas is a difficult process, and sometimes designers need a form of inspiration.

Extension

Before a great idea is formed, designers often generate many ideas that never come to completion. The arduous process of idea generation can tap the creative juices of the best designer. New, creative ways of thinking, new environments to immerse oneself, rapid ways to generate ideas, and processed to stimulate ideas are needed. A designer must constantly challenge his way of thinking to get the best ideas.

Design Strategies

Solution Elements

Stimulate new ideas

Create new ways of generating ideas

Immerse oneself into a new environment

Generate ideas rapidly

E Scenario building

E User trips

E Fantasy analogies

E Direct analogies

E Symbolic analogies

E Morphological chart

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Synthesizing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

50. Brainstorming
51. Extend boundaries
52. Explore concepts

Observation

Different teams work together in different ways. A true connection is difficult to find as individual qualifications and characteristics cause varying interactions with different types of people.

Extension

People work in different ways with different hierarchical structures. Teams are especially hard to manage in the beginning stages of team formation and later when teams enter a stagnant stage. When a team is first formed, people spend time familiarizing themselves and getting to know other team members work styles. Later team members may start thinking in a similar fashion and reach a stagnant stage. Here fresh new ideas could possibly cause inspiration, or the team may need new members.

Design Strategies

Stimulate new ideas

Form balanced teams

Reorganize teams

Solution Elements



Large network of professionals



Team building

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Synthesizing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

50. Brainstorming
52. Explore concepts

Observation

Once data is gathered and analyzed, one may be at a loss to the real question or problem they are solving. They delve into solving the problem before they fully understand the problem.

Extension

Intelligent solutions and policy have to build from the same foundation of why there is a problem, how to solve the problem, where to implement the problem, and what the problem is. During each stage, different people may handle these parts. Much can be lost in transition, and goals and values may also change. To retain the original message, some action must take place to inform all the different members involved in the policy making process.

Design Strategies

Inform team members

Make foundation base of problem

Evaluate priorities and important characteristics

Solution Elements

E Design briefs

E Conceptual plan

E Scenario building

E Semantic differentials

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Analyzing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

44. Identifying constraints
46. Identifying variables

Observation

Many times policy makers delve into problems which requires specialized knowledge. Without sufficient knowledge they are ill equipped to handle specific policies.

Extension

After research on a specific topic is gathered, without developed knowledge, intelligent analysis cannot be performed. Expert knowledge or experts are often needed on such occasions. Problems of how to find such experts, when to incorporate them, and how long frequently arise. The policy makers could attempt to tackle such problems without insider or expert knowledge, but may be missing key insights and patterns.

Design Strategies

Gain knowledge through other parties

Do primary research

Solution Elements

E Large network of professionals

E User trips

S Team builder

E Mentors/advisors

Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Analyzing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

44. Identifying constraints
46. Identifying variables

Observation

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E Large network of professionals

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Design Factor

Project

Research for Policy Design Synthesis

Mode

Design Process

Activity

Analyzing

Originator

Hyunjee Jung

Contributors

Sources

Team deliberations

Associated Functions

44. Identifying constraints
46. Identifying variables

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Design Strategies

Gain knowledge through other parties

Do primary research

Solution Elements

E Large network of professionals

E User trips

S Team builder

E Mentors/advisors

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Cultivating

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

122. Develop common objective and vision

Observation

Due to different objective and vision among toolkit members, there are always debates and conflicts.

Extension

Sometimes among toolkit members, there might be minor difference on their purpose and interest. Because they have different perspective and values of the members based in large part on their backgrounds and some members are biased because of their political affiliation or their expertise, it is hard to come to everyone's consensus of opinion. Therefore, when conflicts occurs, it is important to find some way for everyone to come to an agreement in order to prevent waste of time in the working process.

Design Strategies

Identify mutually agreed objective and vision



Vision linkage

Have the third party judge conflicts of the vision



Mediators

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Cultivating

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

119. Recruit toolkit users

Observation

If there is no clear description of requirements to be a toolkit user, there might make happen involvement of undesirable toolkit users.

Extension

Who will be the qualified toolkit users? In order to recruit capable and qualified toolkit users, it is important to provide applicants who want to be a toolkit user with a clear description of its qualifications and requirements. Otherwise, politically biased user group or users disqualified for a position would be the toolkit members and thus there might bring huge conflicts and miscommunication over the policy design toolkit.

Design Strategies

Post requirement checklists of toolkit users on the website



Qualification Checklist

Counsel potential applicant to toolkit user



Open house

Publish clear descriptions of positions



Job descriptions

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Maintaining

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

125. Promote involvement

Observation

If no one concerns about design thinking and involvement in policy design synthesis, the policy design toolkit won't be able to make any progress or achievements.

Extension

Promoting importance of use of design-oriented policy toolkit and value of design thinking in policy making is one of the crucial parts to attract and recruit toolkit members. Because their enthusiastic commitments to the policy design toolkit-related works will be able to bring a great deal of improvement in both toolkit-creating and policy-making process. Therefore, it is necessary to find a way of absorbing participants' attention and encouraging enthusiastic involvement.

Design Strategies

Inform toolkit members upcoming events related to policy design toolkit



Toolkit Newsletter

Reward the toolkit users who show great job performance



Policy Toolkit Fellowship

Broadcast success stories of the toolkit based on design thinking



Toolkit Success Stories

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Documenting

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

112 Capture process

113 Provide rules and instructions

Observation

Due to insufficient integrated common languages and tools easily understood by both design teams and policy makers, it is hard to lead an effective communication.

Extension

The sharing of information is a key component of a successful policy making. Policy makers and design professionals from various backgrounds and skill sets need to find a way to communicate clearly, concisely and often between one another.

However, because current designers have been less than eager to assume roles in high level governance outside their training, they are unfamiliar with policy language, toolkits and its process. For this reason, design toolkits have hardly been exploited as a tool in policy-making.

For this, if design toolkits can be well integrated with policy toolkits on a basis of common understanding between both parties, it would be helpful to facilitate communication and, eventually, reach a clear consensus on emerging issues and can be exploited as a effective policy making tools.

Design Strategies

Provide officially verified design language web book

Build the library specialized in design

Build community to develop design language

Edit and create project report

Solution Elements

S Policy design dictionary

S Virtual policy design library

S Policy design language development center

S Standardized project report

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Informing

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

117 Build Community

Observation

Without any kinds of gatherings or meeting site, toolkit users can not communicate with each other and exchange good ideas in an effective manner.

Extension

In order to facilitate communication between the policy design toolkit users, it is imperative to build up some common meeting point online or off-line. For example, when they have good suggestions, recommendations or inquiries on the toolkit, or some news and events concerning the toolkit are needed to be informed, building community website could be the best solution.


In addition, in that the toolkit users need to be able to access to the archive, where digitalized documents and all policy design tools are available, sharing them in one site is important.

While sharing and communicating the toolkit with each other, internally, the toolkit users can build up the sense of cooperation and clarify shared understanding of toolkit's objective improving its implementation as a group.



Design Strategies

Build a website used by the toolkit users


Solution Elements

 PDT community website

Build the representative center used by toolkit users

 PDT communication center
 International PDT institute

Build the office for toolkit users

 Office for PDT association

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Maintaining

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Keep continuous partnerships and sponsorships

Observation

If there is no progress on policy design toolkit or the results give partners or sponsors bad impression, it is hard to keep good relationship with them.

Extension

Partners and sponsors want to see the improvement of the policy design toolkit and its benefits during policy-making process. Otherwise, they will assume that design thinking is not valuable to formulate good policies or this research team is not qualified to work on policy-related works. As a result, they might conclude that there is no reason to keep continuous relationship.

Therefore, research team should give sponsors and partners good impression on why this work is valuable for them and have them informed on what is going on the policy design project and its achievements on a regular basis.

Design Strategies

Show the value of policy design tools to partners and sponsors

Notify sponsors interim findings and what would be the result.

Solution Elements

——— S Value Check

——— S Interim Report

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Cultivating

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

120 Build reputation

Observation

There are lack of authorities who can celebrate the usefulness of toolkits, make ceremonial events, and assistance to spread toolkits' achievements.

Extension

There is little appreciation now for the worth of design thinking and design toolkits at the levels of policy planning. For this reason, it is necessary to take proactive actions to promote the usefulness and its achievements of the policy design toolkits along with recognition of the field and reputation of its professions.

For this purpose, there is a need to make public to gain reputation and credibility of design thinking from authorities at policy making level. Furthermore, this kind of displays would be extremely helpful to build a foundation of shared knowledge and strengthen esprit de corps of the toolkit members.

Design Strategies

Exhibit the collection of policy design toolkits and research process

Distribute newsletter informing expert interview, events and achievements related to PDT

Celebrate toolkit's achievements by
Keynote speeches and Testimonials

Solution Elements

S Policy Design Toolkit showroom

S Policy Design Toolkit newsletter

S Keynote speech by policy making authorities

S Testimonial ceremony

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Documenting

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Provide rules and instructions

Observation

Disagreements and no consensus on rules and instructions could result in unpleasant conflicts and misuses of toolkit among toolkit members.

Extension

It is critical to obtain concerning rules and instructions of usage of policy design toolkit in that policy design tool will be used at a governmental level. Some of the resources related to policy-making should be kept in confidential and should not be exposed to the public. In this context, special care should be taken in handling policy design tools.

Therefore, every toolkit member should agree with the terms of rules and instruction concerning policy design toolkit and it is important for them to have common objective and vision. For example, no one should not use any policy design tool for his/her own undesirable purpose and anyone disqualified to use these tools cannot obtain access to the toolkit.

Design Strategies

Make the rule that indicate if the majority agree with specific options, make it a rule.

S Majority Vote

Collect formal documents of agreement with rules and instruction of the toolkit from toolkit members.

S Agreement Document

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Informing

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Distribute project report

Observation

Due to the large amounts of data for policy design toolkit report, an effective way of distribution to toolkit users should be devised.

Extension

Because the final policy report generally involves large amounts of data, there is a need for an effective way of distribution. It should be the way of easily accessible to toolkit members and should not take long time to get reached to them. In this case, web-based distribution is more useful in terms of cost-effectiveness and its accessibility. In addition, considering that the report should be updated on a regular basis, digitalized document can be easily duplicated and modified without added fees and can be spread quickly around the world.

Design Strategies

Forward digitalized documents via email

Build the website to share the final report

Solution Elements

S e-Final Report

S www.policyfinalreport.com

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Informing

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Publish result

Observation

Due to insufficiency of clear, strategic sense of direction, it is difficult to distill the essence of the data into refined data.

Extension

The raw data we observed and assembled is itself meaningless in that it does not show us any strategy or insight to achieve the goal. In this respect, it is the most important phase to figure out how to narrow down the raw data, wherein we can draw a conclusion and key strategy. For this, we need to interpret the raw data into well-organized data exactly suitable for our standard and purpose.

The process of reorganizing raw data is very demanding and tough because it entails a great deal of knowledge and skills from research developers or design experts. Furthermore, according to who breaks down the data, the result makes all the difference in terms of its value. Therefore, to fulfill clear, concrete results afterward, how to combine and narrow down the raw data should be carefully considered.

Design Strategies

Determine developer suitability
Identify relevant tools to assist

Solution Elements

S Resource Check

Identify partners who work well together for summarizing

S Summary Expert Group

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Maintaining

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Work on revision

Observation

There is often more work to do for updates and revisions that remain to be explored later.

Extension

Both currently existing and newly generated policy design tools could be modified according to change in government rules or socio-cultural value. And sometimes there might be minor errors which haven't been found during the policy-making process.

For this reason, resources related to policy making and policy design tools should be regularly reviewed and flexibly adapted to any changed situations. Through this review and updating process, the tools will be more refined and improved in terms of tool's reliability increasing users' satisfactions. The problem is, however, there is often not enough staff and qualified tools available to do the thorough revising, updating job on the project.

Design Strategies

Get feedbacks from advisors and users



User Evaluation

Review potential problems of the policy design tools



Review Session

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Documenting

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Maintain archive

Observation

Due to no place to archive thousands of records concerning policy design toolkit, good resources in the developmental phases of policy design toolkit can not be effectively maintained.

Extension

It is important to create new tools and find useful data concerning policy-making. However, it is also crucial to let policy members keep track of the collected records and reference with easy access in one spot. For this reason, tools for archiving and maintaining all the data related to policy-making should be considered from the beginning.

Design Strategies

Build website to archive entire records concerning policy design toolkit

Build a library to archive toolkit reference

Solution Elements

S www.policytoolkitarchive.com

S Policy design toolkit library

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Documenting

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

Capture process

Observation

Because of the massive volume of records concerning policy design toolkit, it is needed to keep standard formats to be recorded from the beginning.

Extension

For documentation of policy design toolkit and its process, there are two critical things to be considered from the beginning. One is what kind of format would be suitable for documentation and the other is how every process of the tools would be effectively recorded.

To some extent, digitalized format would be fit to documentation in terms of cost and time effectiveness. At times, however, paper book format might be easier to carry and look it up instantly than web-based data. In addition, in order to prevent toolkit users from confusion or misuses of the toolkit, careful consideration should be taken from the beginning regarding how thousands of documents will be consistently recorded.

Design Strategies

Provide an effective visualization guideline——



Format Director

Build interactive database for documentation



Interactive web-book

Recruit staff who track every record of the toolkit making process in one format



Process recorder

Solution Elements

Design Factor

Project

Research for Policy Design Synthesis

Mode

Communication

Activity

Cultivating

Originator

Gil-Ock Lee

Contributors

Team deliberations

Sources

Personal observation

Associated Functions

123 Exchange opinions

Observation

Policy design toolkit users need to be gathered in one place on a regular basis in order to facilitate understanding of information among them.

Extension

The sharing of information and good ideas concerning the policy design toolkit and its process in policy-making is essential part to develop common objective and vision from the beginning to the end. However, without assistance and communication facilities, it is hard to host meetings for exchanging and presenting users' ideas or results.

In this sense, they need to find best ways to communicate and collect feedbacks from others for the progress of the policy design toolkit.

Therefore, for the purpose of both exchanging ideas and encouraging involvement of toolkit users, regular meetings and assistance for managing the meetings, its schedules and communication facilities should be highly considered.

Design Strategies

Hold conference to present and exchange toolkit users' opinions.

Hold symposium to identify emerging issues and solve the problems.

Build a website to exchange ideas among toolkit users worldwide

Solution Elements

S Annual conference

S Idea communication symposium

S Event Facilitator / Meeting organizer

S PDT opinion-exchange website

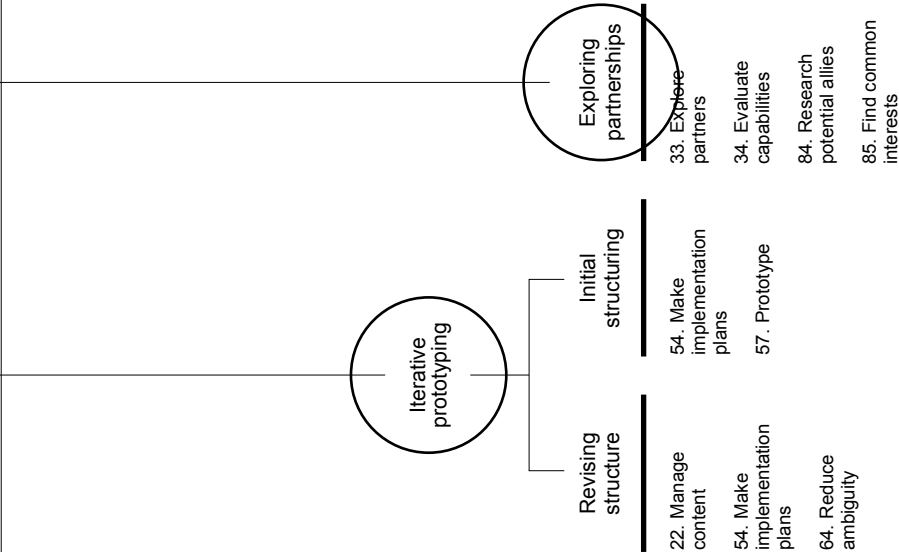
Information Structure

Information Structure



Information Structure

Policy Creation



Information Structure

Policy Creation

Policy movement

Unified support

Solution agenda

Uniting common goals

Creating alliance

Gathering support

Advocating cause

Align values

Establishing objective

Establish design direction

- 29. Establish performance goals
- 31. Evaluate resources
- 35. Establish integration process
- 40. Identify issues and needs
- 41. Collect data
- 80. Negotiate cooperation
- 82. Cultivate support
- 86. Negotiate agreement
- 89. Argue to executive
- 92. Argue at local level

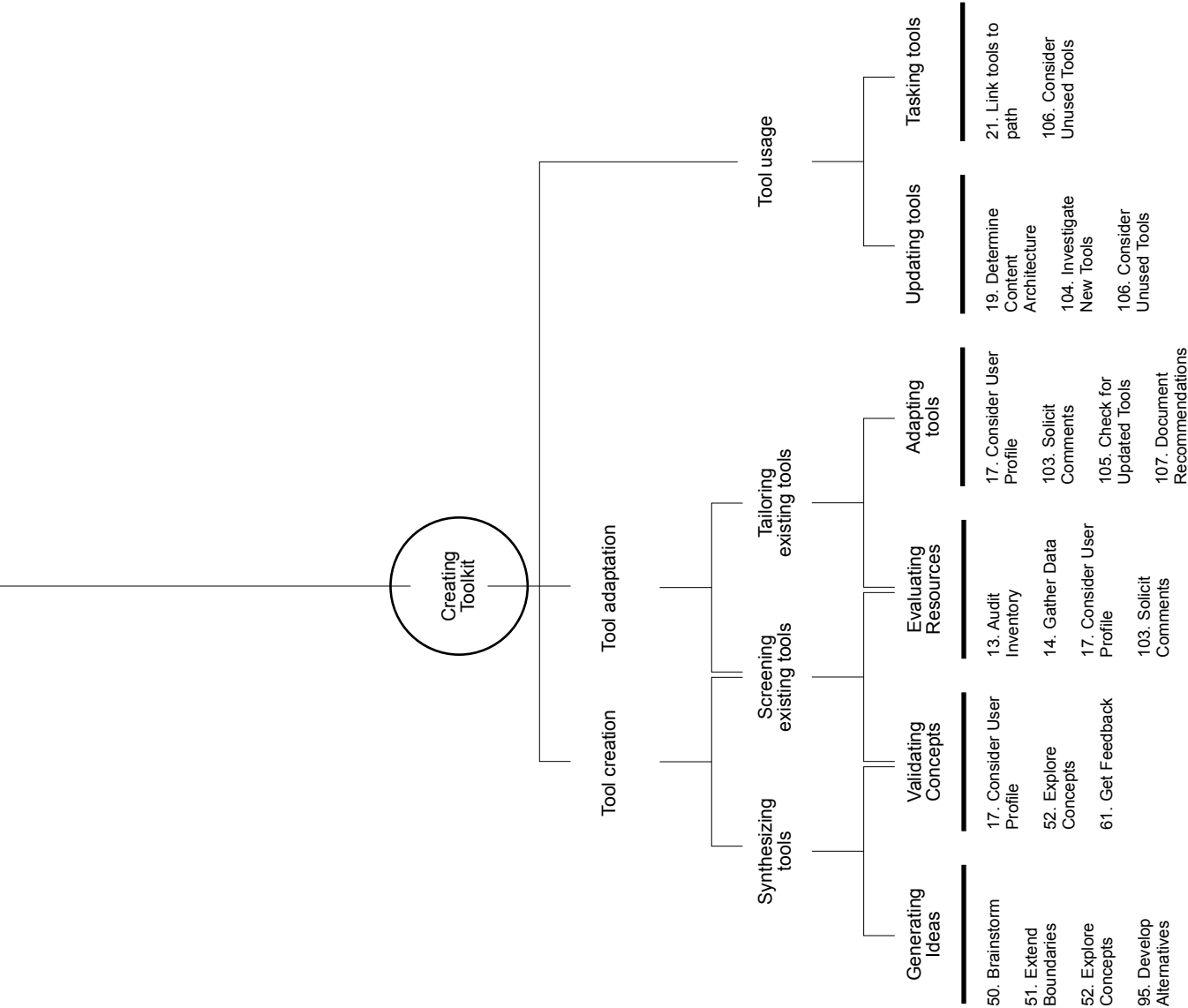
- 38. Define problem
- 40. Identify issues and needs
- 41. Collect data
- 89. Argue to executive
- 91. Appeal to large organizations
- 92. Argue at local level

- 1. Identify team goals for organization
- 12. Define end goals
- 28. Establish priorities
- 46. Identify variables
- 79. Communicate expectations
- 97. Resolve conflict

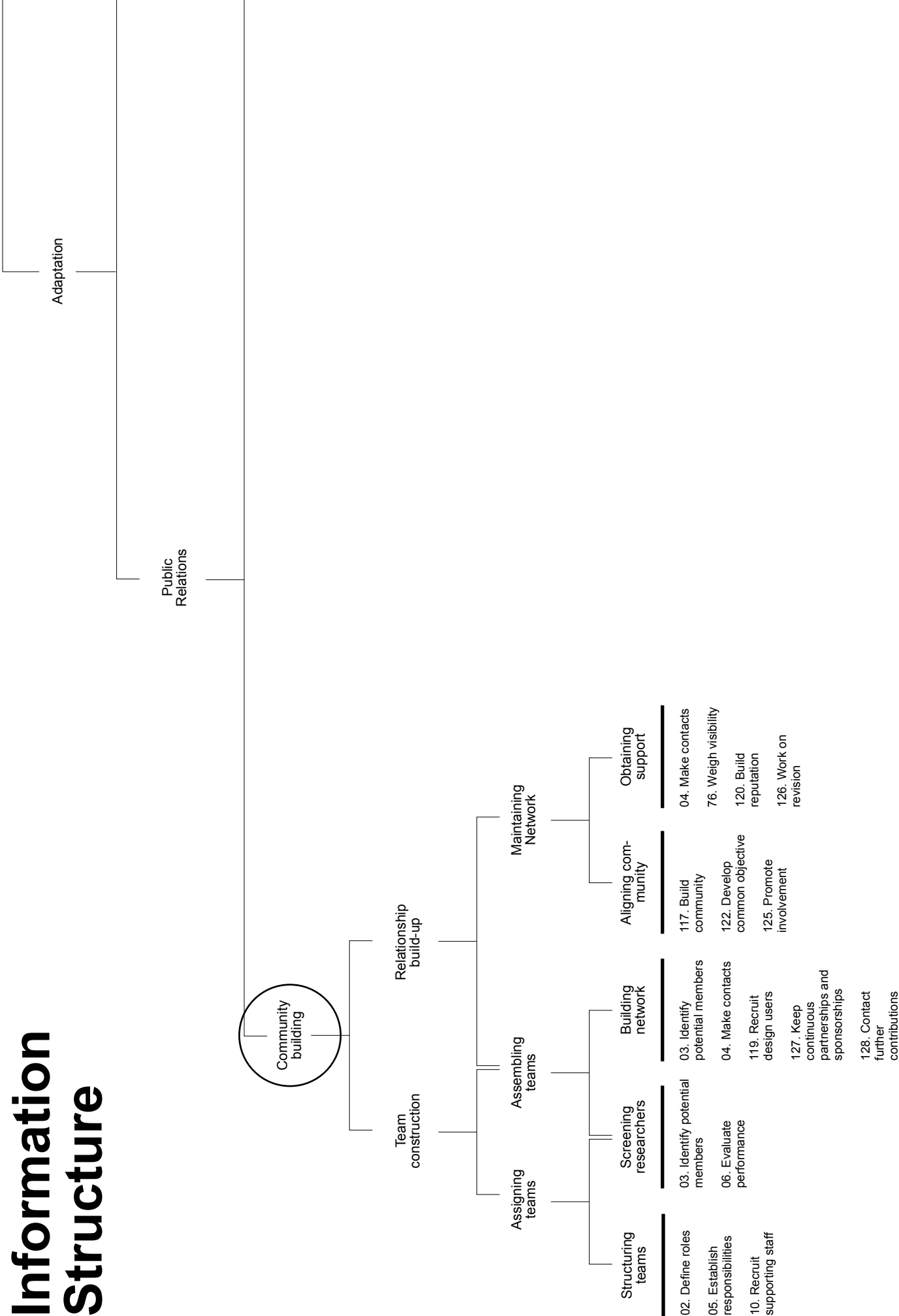
- 1. Identify team goals for organization
- 44. Identify constraints
- 94. Prioritize needs

- 42. Make Observations
- 43. Analyze Competition
- 46. Identify Variables
- 55. Select Design Direction
- 93. Anticipate Other Party Needs

Information Structure



Information Structure

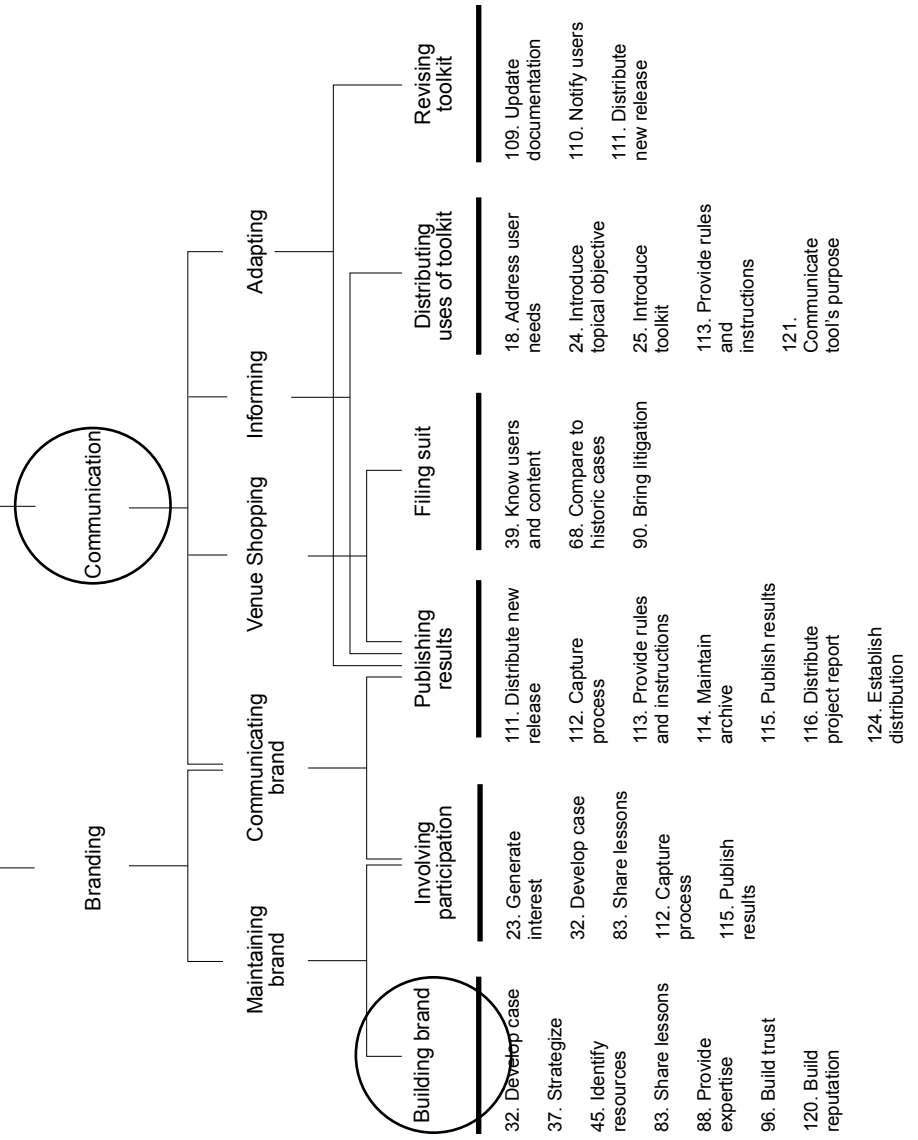


Information Structure

Adaptation

Public Relations

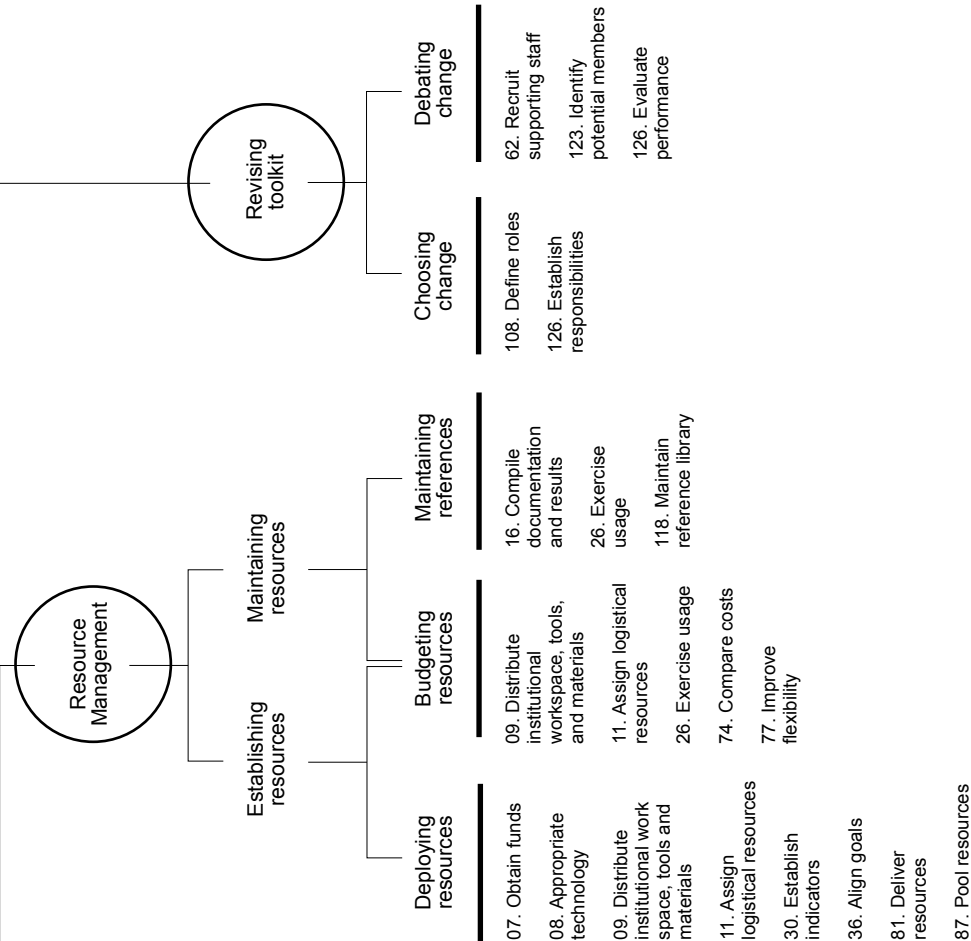
Marketing



Information Structure

Adaptation

Marketing



Sample Working Forms

Activity Analysis		Activity Educating	3
Project Research for Policy design Synthesis	Scenario Educating on the usage of the tool kit		
Mode Implementation			
Originator Rishabh Singh			
Contributors Team Deliberations			
Users Policy Makers Design Professional Project Coordinators Invited experts	System Components Teaching aids Case studies Audio Visual equipment White Boards Computers	Environmental Components Meeting sites Field sites Seminar spaces Conference rooms	
System Functions Generate Interest Introduce Topical Objectives Introduce tool kit Exercise usage Instruct on Usage Evaluate Understanding	Associated Design Factors Doubt usefulness Difficulties arising because of users with different level of skills Doubts or problems arising during application		

Activity Analysis		Activity Mediating	18
Project Research for Policy design Synthesis		Scenario The designer uses mediation tools to obtain an objective, negotiate between parties or help others reach a compromise.	
Mode Policy Promotion			
Originator Clinton Barth			
Contributors Team Deliberations			
Users Designer Policy maker Managers Representatives		System Components Mediation methods/tools Design toolkit Email Telephone Whiteboard Project Goal documents	Environmental Components Shared space Meeting sites
System Functions Anticipate other party needs Prioritize needs Develop alternatives Build trust Resolve conflicts		Associated Design Factors Lack of communication between parties Inability to establish clear goals Poorly defined project, goals or scope Conflicting values/needs Parties refuse to accept mediation No common meeting place.	

Solution Element

E M S

Title: Connect-D

1

Project

Research for Policy Design Synthesis

Mode

Implementation

Activity

Educating

Originator

Rishabh Singh

Contributors

Description

An interactive open community resource that helps users to share and seek advice with the application of the tool kit

Source

Properties

- Web based tool
- Open system resource (open to public)
- Space for interaction
- Maintained by the community

Features

- Encourages the various users of the policy design community to share experiences on the usage of the tool kit.
- Allocates private/public space and identity to the members
- Enables members to seek advice and discuss issue/problems in forums run by fellow members
- Updates member with the latest developments in the field
- Helps to expose design thinking and tool kit usage to the general public.

Associated Function/s

Exercise on Usage

Source Design Factor/s

Problems and doubts arising during application

Solution Element

E M S

Title: Negotiation Tools

1

Project

Research for Policy Design Synthesis

Mode

Policy Promotion

Activity

Mediating

Originator

Clinton Barth

Contributors

Description

A set of tools that allow the designer and/or policy maker to better understand and negotiate with other parties.

Source

Properties

- Language tools
- Cultural education
- Negotiating strategies
- Conflict analysis tools

Features

- Ables designers and policy makers to better negotiate with opposing parties by providing an understanding of their culture, beliefs and motivations.
- Provides designers and policy makers with a set of strategies to achieve desirable results through negotiation.
- Ables designers and policy makers to better communicate with opposing parties to effectively resolve conflicts.
- Gives designers a means of analyzing causes of conflict in order to find possible solutions.

Associated Function/s

Exercise on Usage

Source Design Factor/s

Problems and doubts arising during application

Functions	Means
33	Explore partners
34	Evaluate capabilities
84	Research potential allies
85	Find common interests

End
110 Exploring partnerships



Cluster:

Project:
Research for
policy design
synthesis

Means/Ends Analysis

Functions	Means
29	Establish performance goals
31	Evaluate resources
35	Establish integration process
40	Identify issues and needs
41	Collect data
80	Negotiate cooperation
82	Cultivate support
86	Negotiate agreement
89	Argue to executive
92	Argue at local level
38	Define problem
40	Identify issues and needs
41	Collect data
89	Argue to executive
91	Appeal to large organizations
92	Argue at local level

Ends	Means
111	Gathering support
112	Advocating Cause

End
206
Creating alliance

Cluster:
206

Project:
Research for
policy design
synthesis

Means/Ends Analysis

End	
110	Exploring partnerships

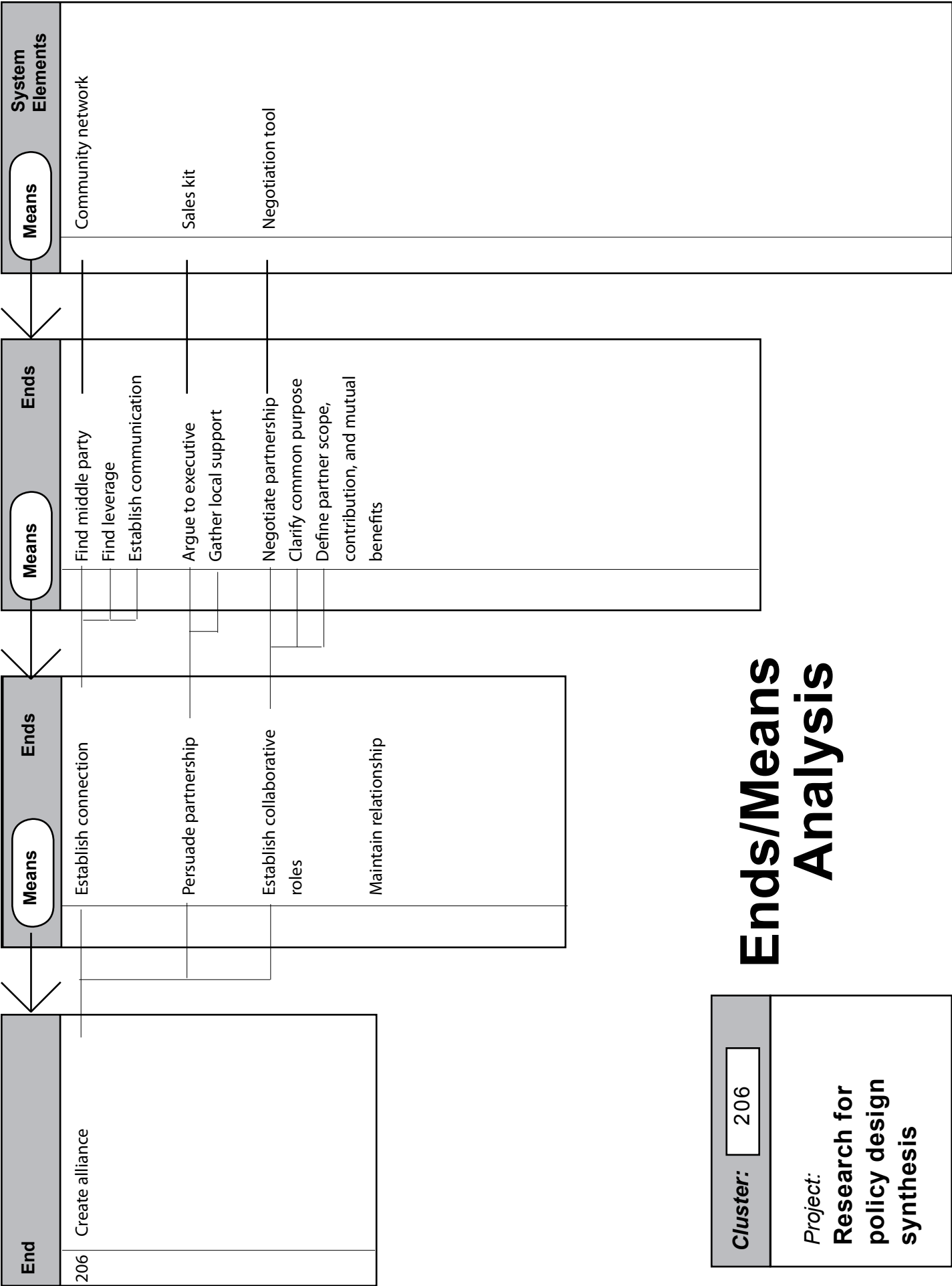
Means	Ends
	Evaluate existing network
	Evaluate connections
	Find potential partners

Means	Ends
	Find weak points
	Find mutually benefitting groups
	Find common interests
	Evaluate relationships
	Make qualification criteria
	Map out affiliations
	Analyze related networks

Means	System Elements
	New partnership analysis
	Community Network

Cluster:	110
Project:	Research for policy design synthesis

Ends/Means Analysis



Project: Research for Policy Design Synthesis		Cluster: 110										Page: 1									
System Elements		Community Network					New Partnership Analyzer														
Features		1	2	3	4	5	1	2	3	4	5										
Functions	29 Establish Performance										■										
	31. Evaluate resources							■		■											
	33 Explore partners	■	■	■			■														
	34 Evaluate Capabilities							■	■												
	35 Establish integration process	■	■																		
	38. Define problems									■											
	40. Identify issues and needs	■				■	■														
	41. Collect Data				■																
	80 Negotiate cooperations	■								■	■										
	82. Cultivate support	■	■	■		■					■										
	84 Research potential allies		■		■			■	■												
	85 Find common interest	■	■		■	■				■											
	86. Negotiate agreement	■	■							■											
	89. Argue to executive										■										
	91. Appeal to large organizations									■	■										
	92. Argue at local level	■		■																	

System Elements	Project: Research for Policy Design Synthesis																Cluster: 206				Page: 1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Features	1	2	3	4	5	1	2	3	4	5	6	7	8	1	2	3	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

1	Saleskit	score 3	1. Negotiation tools will be helpful in establishing roles while forming alliance 2. Also while renewing alliances	Project: Research for Policy Design Synthesis	
		System Element Pairings: 5 - 8 with 1 - 4 row elements column elements		Page: 1	

System Element Relationships

Score
3. Critical relationship
2. Strong relationship
1. Slight relationship
0. No relationship

2	Litigation Team	score 3	1. Negotiation Tools will help the Litigation Team argue their case. 2. Negotiation Tools will help the litigation team find a venue for the policy.	score 1	1. The Policy score card can help litigation team to argue case on past policy performance.
3	New Partnership Analyzer	score 0		score 1	1. The Policy Scorecard can be used to evaluate the performance of policies in a partner scenario.
4	Policy Server	score 1	The Negotiation Tools will be indexed on the Policy Server.	score 1	The Policy Scorecard will be indexed on the Policy Server.
System Elements		score 1		score 3	The Policy Server connects the community with the toolkit users to distribute information and gather feedback.
		score 1			The Policy Server is used to distribute information to the media.

Some questions to ask:		Negotiation tools		Policy Scorecard		Community Network		Media Relations	
1. How should System Element X work with System Element Y?									
2. What new feature/s are possible if System Element X works with System Element Y?									
3. What new property/ies would make System Element X work with System Element Y?									
System Elements		5	6	7	8				

System Element Relationships

Score
3. Critical relationship
2. Strong relationship
1. Slight relationship
0. No relationship

10	Policy Mentor	<div><div>score</div><div>2</div></div> <div>1 the Policy Mentors can conduct the participatory design sessions like the Deep Dive. 2. The new users can be helpful in events like the Open House</div>	<div><div>score</div><div>1</div></div> <div>Policy mentors can assist in the creation of the Policy Protocol</div>	The results of the Use Cases will be recorded according to the guidelines set in the Standard Case Report	<div><div>score</div><div>2</div></div>
11	Standard Case Report	<div><div>score</div><div>0</div></div>	<div><div>score</div><div>3</div></div> <div>The Policy Protocol works with the Standard Case Report to ensure that all research, findings and results are properly documented.</div>		
12	Foundation Program	<div><div>score</div><div>2</div></div> <div>1. Students in the Foundation Program should participate in a Deep Dive as part of their schooling.</div>	<div><div>score</div><div>1</div></div> <div>The Prototype Protocol is part of the material covered in the Foundation Program</div>		<div><div>score</div><div>1</div></div> <div>Design professionals could conduct seminars on policy design in the Foundation Program</div>

Some questions to ask:		Participatory Design	Prototype Protocol	Use Cases	Professional Advice
1. How should System Element X work with System Element Y?					
2. What new feature/s are possible if System Element X works with System Element Y?					
3. What new property/ies would make System Element X work with System Element Y?					
System Elements		13	14	15	16

System Element		<div>E M S</div>	Policy Design Mentor	
Originator	Rishabh Singh	SuperSet Element(s) Policy server	Related Elements Professional Advice Policy Foundation Program Community Network	
Contributors				
Sources	Team Deliberations	SubSet Element(s)		

Description

Online post training guidance system helping new users in the application of the toolkit.

Properties

Data base of mentors

Web based tool

Contact and referral system

Multimedia interaction and communication pathway

Features

Maintains and updates a searchable mentor database

Resource recommends and allocates the mentors to new users

Initiates and maintains contact between the new users and mentor

Encourages active participation by the users enabling formation of communities

The resource facilitates an interaction pathway between the user and the mentor

Archives the interaction for future reference



Fulfilled Functions

18 Address user needs
23 Generate interest
24 Introduce topical objective
25 Introduce toolkit
39 Know users and content
83 Share lessons
113 Provide rules and instructions

Discussion

Policy design mentor program is an initiative to advice and help new toolkit users in the application of the toolkit. It is an online resource which helps to facilitate interactions between a new user and a mentor.

The mentor database is a continuously updated searchable database of advanced users. It categorizes the advanced users based on their field of application, experience and tool competency and invites them to act as mentors.

The system may also recommend, allocate or allow users to choose a single or a group of mentors.

The systems aids in initiating a interaction channel between the user ad

A new user adopting the toolkit may have doubts and confusion about the usage of some tools. Also he may even want some advice on the effectiveness of the some tools in a particular situation. Though the toolkit has been designed as a generic aid to the address most common policy formulation process, a user (may not be a new user) may require some guidance in adapting the toolkit, from some one who has used it in a similar setup. The mentor would not only provide guidance to the new users in the aforementioned areas , but would also be reviewing the performance and competency of the users in the toolkit usage.

This would provide two benefits, one is that it will aid in learning the effectiveness and problems with of certain tools , thus contributing to the revision of the toolkit and the education, and two that they would also help in recommending would be mentors from among the users.

The interaction system facilitates and supports the communication and interaction pathways between the user and the mentor with the help of technologies like Video Conferences.

The system also keeps an active archive of the past interactions for future referencing for use cases. An initiative like this also helps to establish credibility and encourage acceptance with the prospective users. And further, this system will help in evolving the toolkit to become more dynamic and efficient in multiple scenarios.

System Element		<div>E M S</div>	Negotiation tools	1
Originator	Rishabh Singh	SuperSet Element(s)	Related Elements Sales Kit	
Contributors				
Sources	Team Deliberations	SubSet Element(s)		

Description

A toolset for aiding the process of negotiations during the formation of alliances with partners.

- Properties
- A collection of tools
 - Analytic and social tools

- Features
- Develops effective communication strategy
 - Manages conflict resolution
 - Aids in establishing implementation plans
 - Develops road maps for the future collaborations



Fulfilled Functions

29 Establish performance goals
 31 Evaluate resources
 35 Establish integration process
 38 Define problem
 40 Identify issues and needs
 41 Collect data
 80 Negotiate cooperation
 82 Cultivate support
 86 Negotiate agreement
 89 Argue to executive
 91 Appeal to large organizations
 92 Argue at local level

Associated Design Factors

Discussion

The success of the initiative to encourage design thinking for policy making can be truly realized only when it becomes a global effort. Partnering and forming alliances with relevant institutions would be greatly instrumental in this regard.

Negotiation is often associated with the strategic posturing of the needs and demands of each of the participating members of the alliance. In this process, participants bring their goals to a bargaining table, strategically share information, and search for alternatives which are mutually beneficial. It is also one of the most important activities in trying to establish successful partnerships and alliances. Negotiation, in creating alliances with the prospective toolkit partners would involve activities in the following areas:

1. Establishing connection with the prospective toolkit partner institution
2. Persuading the selected partners for initiating discussion for partnerships
3. Establishing collaborative roles.
4. Maintaining the partnerships.

The toolkit would provide strategic advice on when to generate new solutions and when to persuade others; moreover, on the advice on the use a specific set of techniques for coordinating interactions, generating resolutions, and deriving agreements.

1. Tools and techniques for effective communication of plans and intent of the partnership and also what each stands to gain for it.

Before entering into discussions with a potential partner, one should develop a clear understanding of the aims, constraints, and position in the alliances and develop a strategy for the initial stage of negotiations

2. Tools for dealing with conflict

Without negotiations tools and techniques the partners often get fixed in getting the others to agree upon some ready and fixed ideas

3. Developing implementation plans.

The partners cooperatively need to plan for the transfer of the knowledge and also the other steps in the process.

4. Relationship success evaluation tool

For auditing the health and quality of relationships

There is also a need to establish an agreement on the parameters and metrics for evaluating the contribution and performance of each of the stakeholders in the alliance

5. For addressing the needs for future amendments

The goal of the negotiation toolkit is to tackle the tough issues while laying the foundation for a constructive and amicable relationship between the partners.

It is important to ensure that the agreement leads to an operational alliance and that the partners learn from the negotiation experience. Hence the toolkit must also incorporate features that enable the archiving of the negotiation strategies for all contexts which can be referred to at a later point in time. This would not only help to capture the efforts and the strategies of the past endeavors but would also help in learning patterns in negotiation strategies and tactics.