THE FUTURE OF DEVELOPMENT

“MAKE HAPPEN” WITH PORTFOLIOS OF OPTIONS

– [ creating budgets of possibilities | accelerating change | multiplying effects ] –
The Future of Development: “Make Happen” with Portfolios of Options

PORTFOLIO

is a LEARNING, SENSEMAKING & PROBLEM-SOLVING capability leveraged by an entity to induce effects.

It recognises EXPERIENCES, connects & extracts significance from them to generate INTELLIGENCE, develop models & solutions, attract resources.

It is designed by an agent with a TRANSFORMATIONAL INTENT.

Its effectiveness is a function of:

- the breadth & diversity of its component ELEMENTS
- the intensity of the internal INTERACTIONS it induces
- the density of the RELATIONSHIPS it engages in
- the speed at which it RE-FORMS
- the difference & the expansive EFFECTS it produces

& the capability it has to generate & structure an ARGUMENT for:

- the articulation of a new intent
- the determination of a commitment
- the allocation of resources
- the effectuation of innovation.

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The Future of Development: “Make Happen” with Portfolios of Options

Resilience and performance of a human system are reliant on its capability to take decisions about itself | Increasing complexity challenges that capability | This Green Paper makes a case for bringing Portfolios of Options to Development programs and initiatives as core to their transformational intents

Complexity is the source of uncertainty | Development wants complexity managed, uncertainty resolved, social systems transformed | We need design principles and pragmatic processes for the creation of budgets of adaptive possibilities

Human systems are idiosyncratic structures of self-awareness and communication | They are ruled by meaning and capable of learning from experience | They need a process with which to extract, layer and transform learning outcomes to generate compelling policy and action arguments

Strategic innovation (change of the self), strategic learning (sensemaking, action design) and spatially emergent social spaces are key to sustainable, inclusive and evolutionary transformation of human systems

The deliberate and structured design of learning experiences “In” a system makes possible the design of actions by that system on itself | Experience and sensemaking are co-implicated in learning | Learning generates intelligence with which to design actions

A solution is a response event to a useful articulation of a problem | That representation is generative of a Portfolio | A Portfolio creates a space of discovery, design and determination between Problem and Solution

A Portfolio of Options is learning, sensemaking and problem-solving mechanisms | They deliberately engage a human social system and its complexity to provide transformational capability | They generate through sensemaking and dynamic management a constant supply of intelligence with which to design actions

Creating a space that offers a transformational capability requires a form that “makes happen” | Space® provide access to a capability and give structure to relationships and engagements emerging from them | Multi-Agent System Technology is the means with which to represent and engage with complex social systems

Learning as a constant in-between is how policies and interventions in Development can “make happen” solutions to the problems | Portfolios of Strategic Development Options are the mechanism by which structure and process can be brought as inherent capability of systems with transformational intents
Premise

“A system’s capacity to evolve depends on its ability to decide what is undecidable”.

The resilience and the performance of human social systems depend on their capability to take decisions about themselves: embedding and nurturing this capability should be, therefore, the main intent of all who are concerned with enhancing and accelerating Development programs and their effects.

In a context that is increasingly characterised by rapid and seemingly random dynamics of change, and by the very high degree of evolutionary interdependencies that a technologically connected world fosters, the situation in which decisions and actions must be formed and enacted is complex. How change is happening challenges the possibility of designing actions, forming decisions, enabling commitments and allocating resources: the very sources of impactful Development outcomes dry up.

The level of complexity that we experience today - and will experience exponentially more of tomorrow - has an important implication: it induces an extremely high degree of uncertainty. The well-being and prosperity of countries, regions, cities, villages, social groups and people in general depends on their system engaging effectively in the process of designing policies and interventions, of problem solving. They all look to articulate and socialise new intents, form collectively relevant decisions, attract and commit resources to specific and well-designed courses of action. Therefore, they have to come to terms with the inherent uncertainty that they suffer in the pursuit of their goals. Collective and individual stakeholders that aim to enhance and accelerate Development prospects need capabilities, processes and tools with which to engage the complexity and resolve the uncertainty.

This Green Paper intends to review key elements of the problem that Development actors will confront as a new decade opens up ahead of us. It will articulate a solution that we believe should become an inherent feature of Development programs and initiatives. This is the outcome of an intense period of experiences and reflections in the Development space across different geographies and institutional mandates and activities, during which the Foundation has collaborated with institutions such as the UNDP and Grand Challenges Canada. At the heart of our collaborations is a Strategic Innovation and System Transformation Framework, with its associated concepts, working definitions, processes, tools and people. Sourced from CHÔRA Foundation’s knowledge and practice assets, this is a capability we intend to make relevant, customise, scale up and distribute to our partners and stakeholders. We are looking to create with them a space that offers the world a transformational capability.

Central to this capability we see a distinctive and robust practice: the design and dynamic management of Portfolios of Strategic Innovation and System Transformation Options. These Portfolios are unique, context relevant, embedded mechanisms for learning, sensemaking and problem solving that social systems leverage to have an impact on themselves and their problems, and to induce the transformations that are necessary to them. It is our view that Portfolios of Options are the most effective means by which human social systems can supply themselves with budgets of possibility that ensure choice and create opportunity. They will also support pragmatic evolutionary outcomes and enable resilience.
Ultimately, this is about working “with” systems and “in” them to induce transformation outcomes that, grounded in places, cultures and people, are inclusive, sustainable and effective. There is an increasingly loud and unattended request issuing from the ground and from those in need, and increasingly there is a quest for paradigms that can enhance value propositions, unlock more resources, and have an impact that can turn today’s snowflakes into snowballs. There are weak signals of change scattered in the field. Our effort here aims to galvanise and substantiate those signals so that they may be corralled and harnessed toward making a difference.

This document outlines the approach and introduces the practice that we wish to see become a standard in Development contexts and programs. We look to it as a foundational and generative effort that we hope will become a core feature of a more integrated and systemic approach to Development, one that acknowledges the complexity of the world, is led by principles, is pragmatic and adaptive, leverages learning and discovery, designs and commits to actions that have structural impact over time.
Problem

“There is no such thing as an ‘objective’ perception and comprehension of a phenomenal reality [...] rather a complexity determined by reciprocal action between a ‘real world’ [...] and the cognitive-affective organization of a human problem solver”.

Complexity & Uncertainty

[There is complexity | Complexity is the source of uncertainty | Development wants complexity managed, uncertainty resolved, social systems transformed | We need design principles and pragmatic processes for the creation of budgets of adaptive possibilities]

The general aim of Development programs and initiatives is to understand and affect human social systems. The problem that these systems are confronted with is the ever-increasing degree of complexity and the extreme uncertainty that comes of that. Our interest here is not to define complexity, for which we would refer to the increasingly abundant literature that has emerged over the last 70 odd years and for which there has been an uptick of interest of late. Of complexity we would say that there is an experience of it “out there”, and then there are definitional complexities. We merely want to posit complexity as the “nature” of the problem, the “way things are” of an emergent world ecology, and therefore the condition in which all Development actions take place. Complexity, therefore, must be recognised, engaged with and perpetually resolved.

Development urgently calls for a jolt of acceleration. It will only come from fully acknowledging the inherent complexity of the world, accepting the relational entanglement and the emergent properties of our systems, engaging purposefully with its implications. Simplistically drawing on ready-made cut-and-paste expert knowledge and quickly outdated single-point and context incoherent solutions won’t do it. That jolt, and the rush of new ideas and new solutions it will bring, might be the source of a sudden impetus of growth and of a renewed relevance for the institutions, the policies and the actions that are there to “make happen”. So long as the problem is fully appreciated and pragmatically addressed.
Complexity offers conceptual toolkits for designing actions in the world and the study of system dynamics has made available to us some basic intervention principles. We should draw from these principles the frames with which to observe and engage the complex human social systems in which we seek to make transformation happen. These should be acquired and applied as design principles for social innovation projects and transformation processes:

- where does the energy flow in the system; what are the attractors that give a system its “propensities”;
- how much kinetic energy is used by the system and how much does it have stocked or relationally “in reach” as potential;
- what are the distributive and governance mechanisms by which the system directs and allocates its energy;
- where and how does the system produce and exchange information; what, therefore, is the fabric of communication that “makes” the system emerge;
- where is intelligence generated and how is it leveraged by the system to adaptively change itself.

It is the last two features, though, and most obviously the latter – generating intelligence and leveraging it to design actions in the world – that characterise the resourcefulness and the ingenuity of human social systems. These are the features with which we can engage Development contexts and support their transformational intents, and it is these qualities that we will be looking to develop and invest in the solution we advocate here.

An assumption in all current approaches to Development is that our interest is to induce the transformation of a social system. Development today is looking to generate new system identities, to cause shifts, trans-formations of an order that would alter the fabric of what makes those systems exist functionally at the scale at which they are observed and at which agency is happening. A further assumption embedded in the current practices of policy making and resource allocation is that in generating actions that will have that order of effect on a social system we can project effects and thus support decisions and commitments. But really, we know we can’t, and that is the overwhelming experience of uncertainty that we can observe as diffused, permeating every instance and place of collective or individual decision making, and that has us in a state of either frozen stupor or “head in the sand” urgency and thoughtlessness.

1 Derived with modifications from the International Society of the System Sciences
It is of course complexity, a property of the world we are in, that is the source of uncertainty. Uncertainty is, literally, the impossibility for us to be discerning, of drawing connections and thus of representing to ourselves the possibility of an action, to judge its value and implications. Uncertainty, therefore, is not a property of the world, but it is the experience that decision-making agents have of their position with respect to the nature and dynamics of the world, and therefore of action in it. That experience is ubiquitous, but it is not generic and universal; it is in fact very specific to that agent, who therefore – whether individual or social – has a highly idiosyncratic problem, where its qualities, resources and intent, its strategic identity, are the main elements from which to draw relevance, and from which to make sense “within” complexity to consistently resolve it and opportunely model an effective action. It is the sense of self, the strategic self-awareness an agent can articulate that has to engage with the problem and by doing so bring to itself the intelligence, the resources and the forms with which it can resolve it.

In this situation, for system transformation to occur in an effective and durable way three conditions need to be met:

A. a clearly articulated and fully socialised sense of self, of the intent this carries with it and the effects it wishes to induce;

B. a relevant and useful representation of the space in which actions are to be designed and committed to;

C. a capability of the system to generate a budget of possibilities, to constantly supply itself with a portfolio of sustainable options for resilience and renewal to be managed dynamically.

So the problem in Development really is: what can human systems bring to themselves, and what can we in solidarity bring to them, that will provide those systems with capabilities and resources they need to effectively manage the complexity of the world and be constant in resolving the uncertainty they experience about their actions in that world?
Development & Social Systems

[ Human systems are idiosyncratic structures of self-awareness and communication ]
[ They are ruled by meaning and are inherently capable of learning from experience ]
[ They need a structured process with which to generate, layer and transform learning outcomes to generate compelling policy and action arguments ]

Development is a multi-dimensional problem. We mean this not merely by reference to its traditional implication of an integrated effort across programs and initiatives in the social, economic and political dimensions, but also by reference to the plurality of cultural identities, the diversity of specific situations, the broad spectrum of geographic distribution, the multiplicity of the single points of experience for each and every one of those that have an interest in Development and are affected by it.

What currently appears to be an almost inevitable consequence of this multi-dimensionality is the microscopic and incoherent fragmentation of efforts, the distributed mediocrity and diluted value of the capabilities, resources and solutions that are brought to bear on the problem. On observing the current situation of Development policies and interventions dominated by diffused single point activities a strong case can be made that merely the application of robust project management competences and of rigorous control mechanisms would produce significant efficiency gains in how those activities are carried out. The problem is, though, that in the course of time complexity and uncertainty are – certainly not – resolved through a microscopic reductionist approach, or by throwing at our challenge a glib sense of generic aspirational objectives, but by applying instead:

• a pragmatic recognition of the inevitability of complexity;
• a deep understanding of its emergent and exponentially accelerating dynamics;
• a fulsome and solidarity driven commitment to an adaptive approach based on discovery, learning and a humane form of actionable intelligence.

All of which, if it is to happen, will aliment the critical self-reflections that Development and its institutions need; it will produce situational awareness, will induce investments and participation, and will generate a contingent and constant supply of actions designed to accelerate, transform and “make happen”.

This Green Paper assumes that across the virtually infinite variety of situations and experiences that “happen” in the spaces that are conventionally called of Development, there are some foundational elements that are constant: most significant, in our case, the fact that the systemic complexity that one would need to address is that of social systems that are “human”. These are systems with a self-awareness and a will to be, they are ruled by meaning, they are structured by a fabric of interactions and narratives, and in that they are highly idiosyncratic, whilst organically entangled in – if often unaware of – the fluid ramifications of their own ecology. These are systems formed by a special kind of consciousness, a representational self-awareness that makes the system present to itself and perpetually emergent from their internal and external relational dynamics. The specific feature of the systems that Development is concerned with is, therefore, the extent to which they are complex and dynamic human systems dependent on and are perpetually engaged in decisions about themselves.
Human systems produce and are structured by meaning, by evolving social narratives that establish identity and give energy to their will to be and to their agency. Actions in and of these systems have rationales, and negotiate the relational dimensions by equipping themselves with abundant and redundant possibilities, with a richness of options that are formed and sorted by the inherent intelligence that the systems have and generate. It is this remarkable ability that human systems have to generate meaningful representations of themselves and of their world that makes them capable of learning about the world and designing actions with which to support their intent. And it is that cognitive capability to imagine and to think that gives them the possibility to resolve the extraordinary complexity of their world. Any solution to their problem will need to leverage imagination, learning and adaptive enactments coherent with intent and situations.
Solution

“The healthy system [...] may be compared to an acrobat on a high wire. To maintain the ongoing truth of his basic premise (‘I am on the wire’), he must be free to move from one position of instability to another, i.e. certain variables such as the position of his arms and the rate of movement of his arms must have great flexibility, which he uses to maintain the stability of the other more fundamental and general characteristics. If his arms are fixed or paralyzed (isolated from communication), he must fall”.

System Transformation, Learning & Spaceforms

[ Strategic innovation (change of the self), strategic learning (sensemaking, action design) and spatiality (emergent social spaces) are key to sustainable, inclusive and evolutionary transformation of human systems ]

In this paper we are making a case for bringing a dynamic strategic approach to Development that enhances and leverages system capabilities to induce resilience and transformation. Two features of this approach stand out as particularly relevant to Development under the conditions that we will most likely experience over the next decade:

- **Strategic Innovation**, as the capability of a system to design and engage in actions that induce a difference in how it thinks about itself that in time changes its intent and actions so as to maximise effects and induce a singular outcome: “make happen” a change in properties and functions of that system to increase resilience and enhance performance in pursuit of its purpose and objectives.

- **Strategic Learning**, as the discovery and generative space that bridges problems and solutions, the “in-between” where distributed experience and constant sensemaking generate pragmatic intelligence and adaptive forms of knowledge for the design of policies and actions in the world.

- **SpaceFORMS**, as the enabling models that can offer access to a transformational capability, fractal genomes of problem-solving effects that attract the presence of diverse and dynamic constituencies and of resources, that seed and structure experiences, where solutions happen.

The object of design in the transformation of a social system is that system’s identity, the relational fabric it emerges from, the principles it gives itself, the meanings it generates and the forms it takes over time. Every new form generated is a difference, a movement toward an elsewhere that is energised by an intent to change. That intent requires enactment. That action requires intelligence, resources, models and commitment. Portfolios of Development Options make all that “happen”.
IDENTITY

Identity, the cultural constitutive of a social system, is what makes strategic agency possible, for ultimately all actions in the world resolve themselves in establishing who wants to take an action and with respect to what object.

Firmly co-implicated in that identity is a rationale, a “why” that action is needed and enacted. At the heart of robust and sustainable policy and decision-making lies an appreciation of the important role that identities play, for they are ultimately the principle of coherence, the idiosyncratic term of reference with respect to which an action “makes sense”. The narrative form that identities have in human social systems gives them a structure of will and capabilities that invest action with agency, and a culture that gives that agency principles. It is this identity that engages a situation within which it exercises choice, forms decisions and commits to “make happen” with respect to the resources available to it, the nature of the context and the intent it holds.

The design of transformational programs and of the Portfolios as mechanisms by which to “make happen” cannot – should not – be a headless pursuit in which no consideration is given to “who” needs the action. Inherent in that identity, woven in it and springing from it, is a “why”, a rationale that energises. It is this intent that the Portfolio will necessarily cohere with as it sources the elements required for the modelling of an effective action.

Therefore, when it comes to the transformation of human social systems, the most important feature is surely the extent to which those systems can generate and represent a “sense of self” that allows them to have agency and act upon themselves. This is a function of their capability to generate and leverage the coherence of a meta-narrative, a distributed structure of meaning from which that system can derive an image of itself and work with it and on it.

In a human system (country, region, city, group, etc.) its identity is the emergent effect of a certain consistency of being, a presence in time and space of key constitutive elements, and relationships amongst them, that organically bring the system together and allow it to represent itself to itself and beyond itself.

The system thinking approach that is increasingly brought to the analysis of social problems - but significantly less so to their solutions - is often limited by its pseudo-scientific language and its claims to a deductive reasoning derived from the scientific disciplines within which its key concepts and language have been developed. The challenge, when it comes to human systems, is the uniqueness of the role that meaning has, the dynamics of which can be assumed to spiral the complexity of those systems. When aiming to induce transformations of human social systems, therefore, this extreme level of complexity should be assumed to be a given in all circumstances.

Rather than burying the head in the sand, forcing onto reality a simplicity that reality does not have, a new learning disposition needs to be applied. Rather than a attempting to predetermine the evolutionary outcomes of a context when drawing the actions with which to affect it, we should weave learning experiences into the fabric of a system so that we can make sense of it as we riff with it. The trans-formation of human systems is best served by focusing on the properties of the system, ontologies rather than objectives; by taking a pragmatic stance that shifts the analytic attention from aspiration to system propensities; by framing, re-framing and re-re-framing. And, ultimately, by accepting that learning is the permanent “in between” practice that creates the possibilities of a difference and furnishes it with resources.
LEARNING

[ The deliberate and structured design of learning experiences “in” a system makes possible the design of actions by that system on itself | Experience and sensemaking are co-implicated in learning | Learning generates intelligence with which to design actions ]

We can draw some optimism from noting the following about social agency: historically human systems have really not been very good at giving themselves direction - if we measure that in terms of unwavering pursuit of a purpose and adherence to linear pathways and verifiable outcomes. They have instead displayed a most astonishing capability to learn and adapt. So, we should do well what we know how to do best: learn from experience, and change.

Learning is a key human faculty and it is the effect of a co-implication, a braiding of experience and reflection. Deliberately having an experience, designing it with an intent to “have it” and “be there”, and “from there” discover and (re)form is the distilled purpose of making available to a system a Portfolio of experiences, a budget of possibilities and flexibility. Each of these items is a vehicle that a system uses to “enter” a problem space and by having a material effect learn from that experience.

Experience, when designed and approached in these terms, is the object of sensemaking and therefore the source of intelligence. The assemblage of experiences that a system can furnish itself with, when it is deliberate, coordinated, coherent to intent and actively managed, will power its cognitive abilities, trace pathways of enquiry that return information, give access to resources, design choice options and models of execution, articulate arguments for commitments and change. There could be no greater outcome for Development programs than to “make happen” this kind of learning as an inherent capability of the systems it works for.

Experiments, the currently dominant paradigm where system innovation is pursued, are forms of experience, of course. They make anticipatory assumptions about states of the world and are in their way ancillary to action and effect. The specialised nature of these subsets of experience is structured, though, so as to conduct easily controllable and accountable scientific procedures of discovery, prototyping and testing. A requisite condition of the Lab’s effectiveness as place, lieu of experimentation is its “removal”, the “arms-length” it establishes, the distance it has with respect to a messy, noisy, shifting, interfering and polluting world “out there”. But, the world that needs changing is “out there”! and there it owns a scale, a density and a complexity that we cannot remove ourselves from, if we wish to engage its dynamics and transform it. What we need, instead, is a form of intent-driven and concerted actions, of pragmatic enquiries that “enter” the system, acknowledge and engage with its complexity, discover system specific, idiosyncratic pathways to structural effects in that system, socialise intent, commit resources and make outcomes happen.

It is language, of course, that makes possible the opening up of new paradigms, and it is language that anchors us to no longer relevant ones. It is time that policy making disenfranchises itself from the deductive pseudo-scientific approach to discovery, and begins to more forcefully acknowledge that system-wide and grounded engagements must be the source of its capability to design solutions, articulate arguments for commitments, attract resources. Time, therefore, to let go of the traditional “lab” discourse, that defines experiences as eccentric and disconnected, and to evolve thinking and the practice towards a fuller appreciation of system learning and intelligence as the mode with which to assure effective Development interventions.
OPTIONS

[ Options are strategic learning devices, experience-actions in a system that source emergent intelligence of the system | Their value is positional (where) and generative (how) | Options are the constitutive elements of an organic and dynamically managed Portfolio ]

Language has the remarkable property of learning about itself, and of making itself happen in that way. Similarly, the transformation of human social systems calls for a practical language of learning, i.e. a robust practice of it that can make difference happen as a constant supply of possibilities of itself.

The practice of Strategy has a longstanding vein of thinking and application, in contexts of extreme complexity and uncertainty, that looks to make available positional assets, Strategic Options, with which to source relevant information, establish relationships, identify resources and models, configure pathways of commitment to new structural arrangements. Strategic Options are assets designed as integral elements of a Portfolio with which to support, accelerate, effect and enhance the processes of problem solving and key decision making necessary to system transformation. Strategic Options are material instances of a presence “in” the system (or with respect to a problem/issue in a system), that are taken as positions, i.e. material instances “in there”, for their potential role in determining how a Portfolio will develop a solution that will have transformational effects.

The value of an Option is therefore an expression of where and how it engages a space of intervention, and of what materially enables the Option to generate experiences that, when dynamically managed, will source the Portfolio with what it leverages to produce effects: intelligence, resources, relations, models and eventually robust, compelling and socialised arguments with which to renew intent and commit resources to impactful actions. It is the layering effects of pragmatic learning that induce exponential outcomes and turn snowflakes into a snowball.

In a Portfolio all Options are conceived and managed as an integral component with which to ultimately design at scale solutions and/or induce system transformation. The value of an Option, therefore, is not in the single point effect of the underlying element (project, policy intervention, asset), but in the degree to which it binds with other elements in the Portfolio to feed the designers, managers and stakeholders with intelligence and resources from which to form policies, interventions, actions.

A Portfolio of Options generates meaning, initiates social conversations and forms arguments to renew intents and commit resources. It achieves this effect leveraging a diversified aggregate of experiences, a broad spectrum of purposely designed positions in the system’s space. It is these positions that attract, concentrate, precipitate, layer learning outcomes, flowing toward an articulate, comprehensive, socialised, robust and compelling argumentation. And it is that argument that will induce commitment to models, programs or actions that will engage a system’s dynamics and renew its identity. It seems to us, therefore, that at the heart of the value proposition development institutions, organisations and practitioners offer to partners and stakeholders there should be an intent and a capability with which to establish a specialised set of policy and intervention items, Strategic Development Options.

More specifically, a Development Option is the model of an experience-action that is designed to be positioned in a Problem Space articulated as a design canvas, a meta-model that provides initial heuristic terms of reference for establishing within it a Portfolio that will source a constant stream of solutions.
We envisage these Options to be integral components of a Portfolio designed to induce system transformation. These Portfolios should be conceived and implemented as enhancing, accelerating factors in well-articulated and dynamically managed Development Programs. There, leveraging sensemaking, learning and design, they can quickly become program "brains", spaces of cognitive febrility in which experience is rapidly transformed into actionable intelligence and where layers of learning ultimately develop models for timely and sustainable system transformation solutions.
The Design of Solutions

Portfolios of Strategic Development Options satisfy in a deliberate and structured way the constant gravitational pull toward a solution. The “making happen” that we typically associate with a Solution, though, is a response effect to the representation of a Problem: the design of a Portfolio that can effectively, and constantly, source solution events must draw on a useful representation of the Problem.

The practice of design of Portfolios of Strategic Options requires that the space within which an agent intends to intervene (in Strategic Innovation this is almost inevitably reflexive, the system itself) is an image, a representation that enables the “moving in”, in terms that allow for a discovery of one’s own complexity (or the complexity of the problem one is aiming to resolve). That first level of engagement is what makes available to the system the possibility to experience and progressively makes sense, and therefore to learn as an evolutionary practice.

This practice-based approach calls for a combination of visuospatial reasoning and pragmatism, so that we can locate “where” in a problem we wish to be so as to have meaningful experiences from which to derive intelligence about the system and thus feed our intent with possibilities and social arguments that will induce structural modifications within it. When it comes to Problems that are issues and intents with respect to the extraordinarily dynamic complexity of human social systems, we must acknowledge the nature of those systems and accept a necessary implication: there is an interval between the articulation of a Problem and the possibility and capability to generate an effective Solution. When operating in conditions characterised by radical uncertainty, there is a space, an in-between of generative enquiries, of discovery and intelligence, from which robust arguments can emerge for new intents and renewed commitments of resources.

This is a space of hypotheses, of mental metamodels that give us access to a system so as to discover from “within” it how to engage with it and how to “make happen”.

Navigating the shifting grounds of complexity, learning to perpetually re-imagine so as to furnish our actions with a rich and rapidly deployed range of adaptive options is the goal of a next and sustainable approach to the future of effective Development policies, programs and projects. We cannot progress by “keeping” complexity simple, but we can by “making” it so - at least for the time that we need to engage, make sense, learn and then act. It is conceptual abstraction, the capability to see a wood where there is a multiplicity of trees, that resolves uncertainty. As it does so, abstraction creates meaning. These are mental models, useful cognitive representations. These images need not be, nor can they be, truth statements derived of detailed analytic descriptions. These are the faces we recognise before we measure the presence of eyelashes, nostrils and lips: good enough for us to engage with, or perhaps flee.

Given the speed at which the landscape we are looking to move into shifts and changes, and is for ever one moment ahead of us, our time of engagement must therefore also be “up beat”, and our images “good enough”, for us to go there, learn and “make happen”. The images with which we work are hypotheses that will always have a short “shelf-life”; they have a pragmatic and not an epistemic value.
PROBLEM SPACES

To engage with a Problem in an impactful way, therefore, we need a useful representation of it as a system, and this is what a Problem Space does: it articulates the object of an action so that the systemic nature and dynamics of it can be envisioned. And this in turn makes it possible to leverage visuospatial reasoning to engage with the Problem and design effective actions. These spatial representations are generative and action oriented metamodels, relational, emergent, multidimensional hypotheses that have distinct design utility. This approach constitutes a practice of pragmatic disposition with a strong inclination toward understanding the situation, its idiosyncratic features and complex dynamics. There is a challenge here for the standard reductionist and analytical approach that has characterised the last few decades of policy-making, innovation and action design.

A Problem Space is not a Solution, it is not an analytic and reductivist mapping of something, it is not an epistemic statement about the world or a map that truthfully mimics an objective reality and is therefore assumed to allow for some deductive reasoning as to what a Solution might be. And it is not a goal, nor is it an objective. A Problem Space is, instead, a heuristic device, a synoptic and cognitively enhancing tool that enables designers to engage with the complexity of a human social system and its related uncertainty, to learn about it and eventually to resolve it pragmatically.

Human beings have an innate capability for visuospatial reasoning, which if induced and supported they use as a basic function with which to abstract and draw inferences, and thus resolve complexity. It is this cognitive capability that a Problem Space ignites and leverages, which is then further downstream coupled with the other distinctive human quality: learning. To trigger and exploit this capability, a spatial landscape has to be imagined that provides sufficient terms of reference with which to intervene and thus engage “with” the system and “in” it. A Problem Space is a relational and multidimensional representation of our emergent knowledge about that system. Designers merely need this image to be sufficient,”good enough” to initiate a process and enable actions to be designed and experienced so as to induce structured and dynamic learning and generate the Intelligence that can engage with the system to deliver acceleration and transformation.

Because a Problem Space is a spatial representation of the “backbone” of a system it establishes a design relevant ontology of the situation in which a Portfolio of Strategic Options will engage so that the Portfolio can be located there, learn strategically and ultimately develop the “things” that will influence that system’s dynamics. The process of design calls for a tool that can make available that “backbone”, a canvas form that makes it possible to “grasp” the structure of a social system and work with it so as to design actions within it. Problem Space, therefore, is a term-of-art in the process of designing and dynamically managing effective Portfolios of Strategic Options, whether those Options are with respect to development goals, to strategy and policy, to the design of solutions or investments. The value of a Problem Space is in its utility for that purpose.
PORTFOLIOS

When we say “Portfolio”, especially in the context of policy making and interventions that are directed toward the transformation of complex social systems and the negotiation of complex contextual dynamics, we mean a specialised item, for which a working definition is needed. This will provide all stakeholders with a shared term of reference, and so distinguish a Portfolio of Strategic Options from collations of single-point projects and solutions. It will also help to avoid purely speculative arrangements, or more traditional investment portfolios. Here it is:

Portfolios of Strategic Development Options are system capabilities, learning, sensemaking and problem-solving mechanisms designed and leveraged by an entity or a constituency with the intent to induce transformational effects.

This kind of Portfolio recognises learning experiences (projects, actions, interventions, events, etc.), connects and extracts significance form them to generate the three primary activities from which impact to a social system is sourced:

1. generate actionable intelligence;
2. develop models and solutions;
3. attract resources.

The effectiveness of a Portfolio is a function of a multiplicity of elements that can be assumed as requisite design principles:

- the breadth and diversity of its component elements;
- the intensity of the internal interactions it induces;
- the density of the relationships it engages in with the surround;
- the speed at which it re-forms;
- the difference it makes and the expansive multiplying effects it produces;
- the capability it has to generate and structure a socialised argument for:
  - the articulation of a new intent;
  - the determination of a commitment;
  - the allocation of resources;
  - the effectuation of strategic innovation.
These kinds of Portfolios are designed with a fractal-like configuration, a genome that allows these mechanisms to easily go from simple, for simple problems, to a dynamic structure of cascading nested items, a Portfolio of Portfolios. Clearly, these Portfolios are not to be understood as mere collations of single point projects or untethered activities, but assume a clear overarching design principle: strategic coherence with the intent and the object of intervention. Coherence is a dynamic systemic property that the Portfolio - in itself a system working in a system - displays that determines the extent to which its presence and structure when actively managed produce a positive effect. It is on account of this coherence principle - possibly the “art” in the design of a Portfolio - that its performance can be monitored as a function of how well its action-experiences connect with and support the strategic Development intent, layer learning outcomes, generate intelligence and multiply impact effects.

A Portfolio is a strategic learning mechanism, and as such it is designed and managed to induce the emergent, exponential and evolutionary dynamics of learning in human systems, with a view to enhancing its layering effects. It is this quality that fundamentally distinguishes a Portfolio of Strategic Development Options from a standard investment or venturing Portfolio, or from Portfolios that are merely the collation of thematically focused projects each pursuing its solution pathway. Whereas the latter, with its ancillary concept of ROI, is making inroads in Development, it is questionable that it will fare any better than it has in the corporate world from which it is being mutated. In fact, crucial to the effectiveness of a Portfolio of Development Options is not its configuration at the point of initial articulation - what matters here is “where” each of the Options has been positioned, rather than the effect they have or indeed what they are.

What really matters, in fact, is that this arrangement of positions is now managed very dynamically across time so as to derive from it all the elements necessary to the modelling of a solution. And, importantly, it is certainly not a single one of the Options that “becomes” a solution, for that is a mirage derived from investment and venturing approaches that has no relevance in policy making and in effecting system transformation. A solution will emerge from a Portfolio as a cumulative effect of the learning generated by the multiplicity of Options at work in it, and most significantly form the constant interaction they have in the Portfolio space and the Intelligence that is constantly generated as the Portfolio dynamically evolves.
That we should move away from stale paradigms of ROI derived from a simplistic association of efficiency and financial returns as derived from lean management theories and capital investment seems to us crucial, for they are demeaning and enforce diminishing constraints on the pursuit of adequate solutions to the systemic problems that Development raises. Portfolios of Development Options, if appropriately conceived, designed, managed and leveraged can in fact “return” a far richer and composite spectrum of value:

- hedge and manage uncertainty, acting as system immune response to changes, and are therefore the most effective strategic risk management protocol;
- increase adaptive capability of a system by supplying it with what Gregory Bateson termed a “budget of flexibility” and we think of as a budget of possibility;
- identify, engage, form and leverage resources necessary to the system for the design of solutions;
- develop in the system core competences, dynamic capabilities with which it pursues its strategic intents and goals;
- constantly generate actionable intelligence flows toward governance bodies and mechanisms, not merely with respect to an initial intent but as a permanent system inherent competence;
- supply innovation and leverage it to develop solutions across the system’s architecture and beyond the scope of its intent mandate;
- accelerate impact, have a fractal and exponentially scaling dynamic that in time multiplies outcomes and effects;
- source renewal (transformation, strategic innovation) capital and growth (economic, financial) options from which the system can provide itself with sustained resilience and evolutionary performance.
SENSEMAKING

Sensemaking is a process that generates intelligence with which to design actions. Sensemaking is an inherent human faculty that structure can enhance to produce outputs. Intelligence is a decision-making asset that strategic arguments leverage to model solutions, induce commitments and engage resources.

We would hope that it is by now clear that the mere act of design is but the seeding, the ignition of a substantive process of sensemaking and dynamic management of the Portfolio that will ultimately result in a streaming provision of solutions to the problems that the system holds to be of importance to it. The key to generating this spectrum of value from a Portfolio of Development Options is a rigorous application of Sensemaking as the core portfolio management capability.

Sensemaking is not an instance, a single event or an output, but an iterative activity, a process that extracts insights from its object and the experiential qualities inherent to it. It generates learning in and over those experiences, and generates meaning by attributing significance to the layering effects of learning. The output of the process is the foundational asset of all good decision making and of the design of effective actions: intelligence.

The dynamic management of a Portfolio of Strategic Options is predicated on a constant and robustly extractive application of a sensemaking process. The key elements of that processes are as follows:

- **IDENTITY**: who is the sensemaking agent, that has an interest in sensemaking outcomes and therefore brings to the process an intent, a rationale with which to cohere;
- **OBJECT**: what is the material present to the sensemaking effort, i.e. the informational assets emerging from experiences, activities, projects etc.;
- **SITUATION**: what is the context of place and time, and therefore what are the specific conditions and dynamics in which a sensemaking effort is happening;
- **SOCIALISATION**: who is present, which different voices and perspectives are engaging in the process and contribute to it knowledge, relevance and insights;
- **ITERATION**: the rhythm of recurrence, the exponential layering of outcomes and effects that the refrain induces;
- **EXTRACTION**: the drawing of connections and the attribution to them of significance, the generation of meaning and implications from the observations produced;
- **REPRESENTATION**: the communication of relevant outcomes to stakeholders and partners in the process;
- **EFFECTUATION**: the design of actions and the articulation of design briefs that provide those actions with agency, resources and pathways of execution.
The output of a sensemaking activity, layered over time, is therefore intelligence. What we mean by intelligence here is the formalised and generative outcome of sensemaking that is used to:

- (re)articulate arguments;
- (re)establish intent;
- (re)structure actions;
- (re)design solutions;

and on account of it, therefore, draw pathways and determine effects. At the heart of effective policy-making and of the design of impactful actions is intelligence. To be clear: not in the stereotypical sense of discovery and reveal of hidden information, but as the generative proposition of significance attributed to informational assets, to the evidence that our engagement in reality produces.

Intelligence is a propositional statement, an individual or collective authoring that draws its premises from robust narratives (probability, imagination) and gives form to a possibility. It is, literally, the reading between the lines, the interlegere, an interpretive act that furnishes actions with terms of reference for their execution. Intelligence requires a transforming effort applied to it so that it can be actionable, and here is the value in the process and structure of the articulation of a Policy argument. It is this argument, and its enactment, that we should expect a good Portfolio of Development Options to continuously source for us.

At its best, a Policy argument is a Strategic Argument, in that it provides a social agent and its intent with a compelling reasoning and with the means with which resources can be committed to a particular course of action. To this extent, a Strategic Argument in Policy is the formal and logical arrangement of all the intelligence outcomes that a Portfolio has generated and is generating, that will induce, structure and support decision making processes aimed at effecting system transformation. The value of a Strategic Argument for the purpose of policy articulation – its “evidence” – and the design of social system interventions – its models – is that of its inductive logic, for it is this that enables the acquisition of premises or claims (possible or probable), the generation of a proposition or recommendation (robust and persuasive) and the closure of a set of actions with which to “make happen”.

ACTION

[ In the design and commitment to an action it is the robustness of a strategic argument that will "make happen" what is possible | The enactment of a compelling argument is the effect of the decision-making frameworks and processes that a system has adopted, upon which its resilience and performance depend ]

A thoughtless action, unsupported by an argument reliant on experience, knowledge and the evidential narratives we need for commitment of resources, is the wasteful and damaging effect of a lack of robust decision-making frameworks and processes. It is the forming of decisions that transfers learning from possibility to actuality, it is intelligence and the ingenuity of design that "make possible" and enable us therefore to "make happen".

An action "happening" is the structure of an "in time" event, induced by an agent. That there should even be the possibility of an action is the effect of a narrative, of a socialised and compelling strategic argument. It is this that applies energy to the form we have given to that action, provides it with momentum and with the terms of reference, that applies energy, provides momentum, and terms of reference to an intent.

Effects are the results in time, the extended “making happen” of an action or an influence on an object or a system that accelerates and changes them.

Effectuation is the enactment of the strategic argument for an action. It is an entrepreneurial approach that leverages:

- the robustness of the argument;
- the resources identified and the models;
- the intent that emerges from social engagement and conversations;
- the appropriate commitment;
- the application of analytical tools;
- the choice and pursuit of a pathway that will make strategic innovation (system transformation) happen.
The “making happen” of transformational policies and interventions in human social systems calls for forms that are coherent with their complexity and with the relational complexity that comes from their ecology. These are forms that must enable the emergence of spaces that offer — as metabolically inherent to them — capabilities in support of the imagination and realisation of the new social structures and dynamics.

The form that most readily lends itself to both represent and manage the relational system that one is looking for is that of a multi-sided platform (MSP), i.e. a model that creates value enabling direct interactions between distinct types of affiliated participant groups. In recent years a great volume of publications about MSPs as models has been produced, and an equally impressive number of MSPs have been implemented as market and social engagement models. Yet, despite this, the very term appears to us to be an inefficient attempt to understand and leverage the dynamic, interactive and complex social experience that occurs when diverse agents aggregate and engage in generative activities and exchanges.

The term MSP, and the epistemology that has evolved with it, seeks to capture an evolution of the Platform and a more articulated representation of its workings. Yet, MSP remains semantically moored to the static one-dimensional flatness of Platform, merely adding “sides” to increase the types of observable exchanges. The flat image that Platform carries is a semantic legacy of the “grounded” meeting place that markets used to be, a legacy that has recently been reduced into the “motherboardness” of technology platforms and of technology-enabled two-sided match-making exchanges. Despite the fact that Platform has now become an epitome of technology, it is in fact not a technology but a model with an infrastructure that enables markets to happen. It is a model that technologies have found most effective in rendering their utility, and one that in turn they have enhanced and structured with their expansive and accelerating properties. What technology has afforded now is for individual actors, or clusters of them to “make the market” and thus generate and regulate the exchanges between convening parties. The term MSP remains semantically trapped in the “flatness” of the Platform and ends up merely multiplying the number of agents involved without identifying a different social form and the difference in dynamics that comes of it.

This is an instance of a shift in paradigm that has not fully accomplished its intent: it fails to recognise and engage with the extent to which a social space emerges in the surround of exchanges, where presence is multidimensional, interactions are multilayered, and the density of intents, interests, actions and outcomes is vibrant, complex, dynamic and yet structurally arranged around an attractor, a magnetic force that consolidates the system organically and drives its evolutionary dynamics. There is a different and better paradigm to bring to the understanding, the design and the transformations of social systems: a SpaceFORM.
The most significant effect of the shift from more static and flat system models is the notional disentanglement of platform (now truly the place where a capability is “grounded” and offered) from the surround multidimensionality of space is this: both remain co-implicated in the Space\textsuperscript{FORM}, but the functionality of the whole system can now be perfected by focusing on the specific design requirements of each element. When the capability the platform provides access to is a design and sensemaking one that enables resilience and renewal, what emerges is a space that offers a transformational capability.

We must therefore turn to spatiality, the robust and interdisciplinary conceptual architecture that gives a more organic representation of the system at play, and therefore greater purchase on the mechanisms that structure the activities that occur within it and on account of it. Spatiality has long been a concern of Geography, where it has generated a deep understanding of the forms of human presence and of the effects of those experiences. Specifically with respect to the dynamics of knowledge production and distribution within and across social systems, the entangled relationship between knowledge and space has been the object of a recent groundbreaking interdisciplinary research effort\textsuperscript{2}. Spatiality subsumes the experiences, the interactions and the exchanges that occur in human systems on account of their being present there and to each other. As the intent and the interests that are expressed by situated agents has them engage in interactions and generate effects, presence acquires density and flow, and space is formed.

Spatiality recognises the extent to which space is a function of it being “experienced” and therefore a function of the distributed information that agents have of “where am I” and “what is there”, and therefore ultimately reliant on location awareness and communication across the system. The experience of space is also an effect of identities at play that relate to each other and through interactions produce outcomes that over time change them. The convening that “makes” the space is induced by the interest they share in being there and bounded by the value they derive from that. This social coming into being creates a configuration that has its own singularity, expresses an overall identity that reflects back to those that are active and present in the system: as space is formed, its own presence exercises influence on the presences it hosts.

What gets formed here is resilient, adaptive, evolutionary spaces that have their distinctive spatiality, a function of the principles and objectives that are inherent to it, of the technical mastery the space offers to those that are present in the system and of the choices and activities that they determine and engage in. By drawing on a spatial epistemology the system design can configure its working arrangements, the forms of ownership, the terms of utility, the productive and exchanging mechanisms, the flows and the overall control and administration processes, and thus the context of presence and practice that make it a uniquely effective system innovation habitat.

\textsuperscript{2} https://www.springer.com/series/7568?detailsPage=titles
This spatiality may appear to have no horizons, no boundaries that define it and hold it there and together, but it has a core that centripetally attracts. It is the interplay of pulls and pushes that structures the space, bounds it by means of presence and relevance. It is this relational fabric that extends the space coherently until it is relevant and necessary. Its openness, therefore, is not open-ended.

Giving form to a social system calls for a technological infrastructure, an intelligent technology that can model the complexity of a human social system to support it in its dynamic decision making by drawing on a social system ontology and by using it to establish presence, agency and negotiation to all elements in the space, human and otherwise. The obvious candidate here is multi-agent system technology, one of the most established forms of artificial intelligence that also happens to have the widest range of instances of its application in the management of complex operations and systems.

Social spaces have a density and an inherent complexity that calls for modelling capabilities that can represent to key decision making processes both their real-time conditions and the event-effects occurring in time, and observe the propensities that those systems might display in their over time evolutions. An agent-based modelling of Space that assumes them to be socio-technical systems would significantly enhance the capability of those systems to design actions within them and for them. The application of this technology would also significantly enhance how Portfolios in support of decision making can be enhanced by so-called shadow options, i.e. digital action-experiences, decision making thought experiments with which to quickly intensify the range of experiences from which intelligence is derived.
Conclusion

“There is no reason why we should not feel ourselves free to be bold, to be open, to experiment, to take action, to try the possibility of things”.

Maynard Keynes, Essays in Persuasion, 1929, p. 124.
Learning as a constant in-between is how policies and interventions in Development can “make happen” solutions to the problems. Portfolios of Strategic Development Options are the mechanism by which structure and process can be brought as inherent capability of systems with transformational intents.

Development Programs and initiatives are energy attractors, structures for the commitment of resources to the strategic intents of a social system. They are instruments for the enactment of those intents, and they assume an extraordinary capability: that it would be possible to deterministically pursue a detailed plan and its corollary of objectives and goals.

Complexity – the exponentially growing experience of complexity in human social systems – is a surround that constantly challenges those pursuits, and exposes the fragility of our current ways and means. Rather than engaging in a futile resistance that seeks to intensify efficiency of our current control mechanisms, we should be looking to leverage the effectiveness of our learning ingenuity, accept that in complexity what really matters is the constant “in-betweenness”, and that we can bring to it a rigorous practice of “doing” that is contextually relevant, savvy in the recognition of the obliquity of discovery and creative in giving form to spaces that offer a transformational capability and, therefore, the possibility to “make happen”.

Any social system that intends to enhance its decision-making capabilities to accelerate Development outcomes would need to have embedded in it a new set of robust core competencies with which to offer to itself or others the solutions to the problems. These are resources (frameworks, processes, tools and knowledge assets) that are central to the way that system thinks and does things. This is what it invests in and what it leverages to create relevance and generate value. These are the capabilities that will sustain that system over time and that will assure the quality of the interventions toward its own renewal.

The nature and dynamics of the context in which people and countries today find themselves having to engage in their development programs assumes that changes to those systems are necessary and inevitable. There is an adaptive rationale that is dominant when an agent seeks to effectively negotiate its relationship with its context. The appreciation of the multidimensionality of the systems, of their interconnectedness, and of the complexity of the emergent and evolutionary dynamics that this establishes, requires those systems to look for and embed a capability with which to transform themselves. The challenge here clearly is the very nature of complexity, the degree to which it does not lend itself to a projection and of the extent to which bodies of knowledge and solutions that were useful at one stage are quickly no longer relevant or need constant updating. It is here that the system’s capability to learn becomes crucial to its possibility to form new identities and develop better solutions to ensure its resilience and performance. It is active learning that will bring to its purpose the elements that it needs to engage effectively in pathways of change.

Hunger, insecurity, disease, inequality, poverty, etc. are all conditions of deprivation from which it is near impossible to emerge without a breaking away on a wave of knowledge and into a space of possibility. The act of solidarity that Development must perform is to create that space and to offer that knowledge; it is to give social systems access to, and to embed in them, a capability to take decisions and design actions; this will furnish those systems with sustainable and inclusive forms to a renewed self. To make available the means by which that knowledge can be leveraged, and by which the possibility of things can be given, is the act of solidarity that Development must perform: Portfolios of Strategic Innovation and System Transformation Options in the space of Development is what we bring as our own act of solidarity.