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What is Planning? - An Inter-domain Discussion

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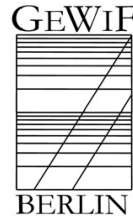
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Transferability: Reflections on planning and knowledge organization

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What is planning? - an inter-domain discussion

Abstract

What is planning? Should we think of plans as data sets rather than documents? What about strategic planning or the role of formalization in planning? These questions were discussed at a meeting that brought together experts from a variety of fields - spatial planning, business planning, political planning, and military planning. There was some consensus that, in general, more time should be devoted to the preparation of planning, especially for a better understanding of the underlying problems.

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The discussion was held online on 25 July 2023.

Mieg: Plans have been important throughout the ages. Think of Haussmann's plan to transform Paris in the second half of the 19th century. Or the so-called Marshall Plan to rebuild Europe after World War II. Cities, countries, and even businesses all need to plan in one way or another. We will discuss three questions about planning: First, what is a plan? Second, what about knowledge transfer in planning? And third, what is the role of time in planning? This discussion brings together experts from a variety of fields - spatial planning, business planning, political planning, and military planning. Let's start with the first question: What is a plan? I'm going to turn the question over to our panel and ask each of you to introduce yourself briefly.

1. What is a plan? from a plan as a document to a plan as a set of data that drives a "game"

Hopkins: I am a retired planning, as we tend to call it in the US, faculty member. And the simple line of my research is, when people ask me what my research focuses on: I say plans. And the odd thing is that's almost unique. I want to do two quick things. One is from the field that I come from. There's a very conventional and sort of overwhelming concept of what a plan is, and that's a document that sets out spatial physical expectations and intentions for a particular unit of government. In my field, underlying almost every discussion is this notion of what a plan is. Whether it's true or not, it's there. And then, more recently, there's been a backlash over the last 20 to 50 years, where most of the focus, at least academically, is on a process of collaborative, collective decision making. So much of what's discussed in planning theory, within the discipline I'm in, is really about governance, collective decision making, or collaborative decision making. This largely ignores any notion of what a plan as a specific phenomenon actually is, and often suggests that we shouldn't talk about it because it's irrelevant. So, my most abstract notion of a plan is: it's the consideration of a second decision before acting on a first decision. That's the most basic concept. There have to be at least two elements of decision making (and we could talk about decisions versus actions and all that), but for a plan to be useful, I would say that *a plan is information*

about decisions - it's not decisions. In other words, I have a plan that says something about two or more related decisions. Given that plan, I make decisions.

Mieg: Okay, thank you very much. Who wants to be next?

Kodalle: I'm Lieutenant Colonel Thorsten Kodalle, Head of the Innovation Laboratory at the German Armed Forces Staff College. Planning is our daily business, and my specific area of expertise is educational wargaming at the strategic level. I would like to give you a military perspective on this. Let me begin by quoting General Eisenhower, who said that *the plan is nothing, but planning is everything*. So there is the plan, and there is the planning process. Within military thinking we have the military decision cycle, and there is a point in the cycle where you have to make a decision. The most famous military decision cycle in the English-speaking world is called the OODA loop, developed by John Boyd, which is: observe - orient - decide - act. And the plan is created between decide and before act. The plan is, of course, a kind of document that allocates forces in space and time. So, from a military planning perspective, the most important domains for planning and for a plan are space and time, and there are other important domains such as information, which is a domain in itself. In addition, we have to distinguish several dimensions, including the virtual dimension; and, of course, different levels of planning: the political level, the strategic level, the operational level, and the tactical level. Each of these different levels produces documents, so they receive as input a plan from the higher level. This is then evaluated and transformed into plans for the appropriate level and pushed down one level.

Mieg: Okay, thanks. Cinzia?

Colapinto: My name is Cinzia Colapinto. I'm Associate Professor of Management and Entrepreneurship at Ca' Foscari University in Venice in Italy and I have a dual appointment with IPAG Business School in France. From my point of view, a management point of view, with the term plan I really refer to *work, means and objectives*. Because when we talk about plans, I think it's always important to understand that a plan is done in a formalized procedure

that relies on means that - for me, us and especially companies, managers - they need to be identified and defined to achieve a specific goal. So this is something that goes with time, as in military planning, and space. Because we have to understand where we are going to operate. We need to actually identify what the resources are, the different resources that we can use, and we need to allocate those resources to try to achieve a specific goal. And the second aspect that I think will be relevant is that we have multiple stakeholders, multiple actors that are involved. And as a result, we have to try to find some kind of consensus, some kind of common ground; I think one of the main challenges in defining a plan is trying to reduce the distance between the different frames in order to have a plan. The first step is to define the problem we want to solve or the goal we want to achieve, and to do that, we have to speak a common language. We have to try to find a consensus and use the same frames to understand this challenge or this problem.

Mieg: Thank you. Bert?

George: My name is Bert George, I'm an applied economist and currently an associate professor at the City University of Hong Kong, Department of Public and International Affairs. Let me add to what has been said. First, in many public organizations, *strategic plans* in particular are meaningless. They are often imposed on public organizations. They have to write one and it ends up in a drawer gathering dust. Nobody knows about it, and it's just sitting there waiting for an auditor to come in and see, oh, yeah, it's there, and I can check my books, so to speak. So that's what I often see in practice. So when I talk to strategists in governments. I tend to say to them, you know, that's a missed opportunity. If that's what your plan is - nothing more than a document used for a legislative, mandatory purpose. So what I try to tell them - and again, this is something we see in the literature - is that any strategic plan should try to fit at least three specific purposes, the first being a purpose of accountability. A strategic plan in the public sector should be a document that shows that you as a government are accountable. The second aspect - accountability is more managerial - this is more of a bridge, and it ties in a bit with what the colleagues have put forward, is the notion of a strategic plan

as what John Bryson calls a *boundary object*. So a strategic plan can have the ability to link stakeholders together to demonstrate to your network of partners what you want to do, again, why and how. The third aspect, and this is perhaps more of an economic aspect, is that strategic plans have a *branding purpose*. You see this especially in many cities, but also in other governments, where their strategic plan becomes a way to legitimize themselves to investors, to people who want to move to the city, but also to higher authorities who are investing in a particular public organization.

Mieg: Thank you for your concise statements. Allow me to give a brief summary. Each of you presented a movement in understanding what a plan is. Lew Hopkins talked about moving from understanding the plan as a document to understanding the plan as a set of information for decision making. Thorsten Kodalle, in the context of military planning, shifted the focus from what is a plan to planning in domains, dimensions and at different levels. Cinzia Collopinto, with regard to corporate decision making, talked about moving from pure means-end planning to planning that has to start from a common understanding of the problem. Bert George talked about strategic plans, which are a formality in many public organizations, but where there is wasted potential, for example in branding. This brings us from the topic of what is a plan to the topic of planning. Who has comments or questions?

Kodalle: Can I ask Bert George a question? I once read the book: *Good strategy, bad strategy*.¹ The main difference between a good strategy and a bad strategy pointed out in the book is that a good strategy also in a way talks about ends and means and allocates resources how to get to the intended end. And bad strategy is basically just vision: we want to be carbon neutral in 2030, and nothing else. What do you think is the difference between a strategic plan and a good strategy?

George: Okay, I think this is a very interesting question. I think often the best strategies are not the ones that are in the plan. I think the best strategies tend

1 Rumelt, R. (2011). *Good strategy/bad strategy: The difference and why it matters*. New York: Random House / Crown Business.

to be the ones that emerge over time, they may be informed by the plan, they may use the plan or the strategies in the plan as a framework, but during the actual implementation, when people get to doing the strategy stuff, they may find other ways to do it, other ways to approach it, and that's what we typically call typical learning - the feedback loops. Not all strategic plans will capture all the best strategies, because a lot of good strategies tend to emerge over time.

Kodalle: I'm also a certified *Scrum Master*. What you said sounds a little bit like agile project management, where you have this iterative process of learning from your previous cycle and implementing what you learned before. That's basically a huge difference from the old waterfall planning process where you basically just plan through and don't really learn during the execution phase. That's what the military has been learning for the last 100 years, since von Moltke, a 19th century Prussian general, said, no plan survives contact with the enemy.

Hopkins: Well, I think the nature of this discussion is that we're talking about different things, mostly about the use of plans. And so the process of making a plan is also at the same time a process of using a plan, because you can use it to communicate, to collaborate, whatever, while you're making it. And once it's made, which it never is, we should think of a plan in an *input-output framework*. Every output is an input to something else, which is consistent with what I think people are saying. There's another way of thinking about plans that people are starting to use, which is the means-ends notion. We're then talking about two different things: We're talking about identifying ends-means relationships versus talking about relationships between different actions or different decisions or different organizations or different decision makers or different expertise or whatever.

Colapinto: What I think is really important today is that a plan actually has to be flexible and based on *iteration*. So it comes to bringing in what was mentioned before in terms of a goals, we can distinguish between deliberate and emergent goals and also different side goals. And if we bring in this iteration,

then you have this cycle where you can learn from what you have done before and you can modify your plan. So you try to negotiate and find the good compromise that you want to pursue. Another issue is that we live in an unstable environment, and so we need to have plans that maybe have to be seen in a different way, much more flexible, and iterative, we might bring in a different perspective and talk about collaborative project management. Why is *Design Thinking* such a popular tool today? Because it brings this: a way of being divergent, open to find all the different possible solutions, and then uses convergent thinking to select some possible actions or sequence of actions that may bring the solution to the problem that we need to define in the first stage.

Hopkins: One of the things we've been working on is trying to represent plans as datasets. In other words, instead of thinking of a plan as a document as an output, think of it as *a set of relationships*. Thinking of this in a military training context, when you have a military game, it's running on a database of relationships that are given, and I assume relationships that are created by the players. We could think of an urban development plan or an organizational strategic plan as the dataset that would drive the real world game that is being played. In what we've been able to do so far, we've developed the dataset from the point of view of a player. But it has to include the other players. The dataset should be the most useful information that we want to have access to in real time for iterative learning and acting in the environment that we're trying to support. We have to be careful about this notion of focusing on whether plans are good or bad. For example, in the recovery of New Orleans, which was one of the earlier major disasters of the last couple of decades, there were actually a lot of plans, and they were conflicting. Some of them were implemented, some of them weren't. But they were all information. And they were information that was useful, whether they were good, whether they had stakeholder support, whatever, because they were useful to people who were playing the game.

Kodalle: A plan is a set of data, of course, but it is also a kind of *model* of the world, with all the relationships that you are assuming. You need data to

actually run your model. A model exposed to time would be a simulation. Therefore, a kind of planning into the future is anticipating that something should happen in a certain causal relationship. Of course, as some statisticians put it, any model is wrong, but it can still be helpful; and the map is not the territory. So a plan should probably be understood as not being the perfect and all-encompassing solution to whatever you are trying to accomplish. But it's a kind of model for a particular problem, a solution idea, something like that.

Mieg: I would like to conclude by summarizing and commenting the issues that have been raised. First of all, a plan is not necessarily a world model, but it can be based on it or imply a model, for example, a city development plan is based on some kind of city model. A murder plan rarely has a world model. But if we take plans as information, then secondly, as in the case of New Orleans, the interplay of different, even contradictory plans may well result in something like a model of the state of the city. Third, this exchange of information about plans is so important because we live in an unstable environment.

2. Transfer of knowledge, formalization

Mieg: So let's move on to the next question: From your planning perspective, what are the criteria for appropriate transfer of planning knowledge? How do you know in your domain when it makes sense to adopt terms and knowledge from other domains, such as military or corporate planning?

George: It's an interesting question and my interpretation was a little bit different. I was thinking more about knowledge transfer in the sense of also training future planners and kind of finding a way for people to think, act, and learn more strategically through planning, so one of the biggest concerns that I have right now, both practically and academically, is the stereotypical thinking around strategic planning. For example, in management, which is a huge field, very few people write about strategic planning. I mean, part of

that is, of course, Minzberg's notion that strategic planning has failed.² I think we really need to try to find ways to break through stereotypical thinking. One could be that a plan is not necessarily a document, and this was raised by colleagues earlier, and often it's not. One could be that planning isn't just about formulating, but there's implementation in there as well. So breaking through those stereotypes and finding ways to understand when strategic planning can be useful in a particular setting. I think that's a very important role that we have to make sure that knowledge is transferred, especially into practice.

Colapinto: I was thinking about education, including the teaching of strategic planning. What is very difficult is to try to transfer something that is very complex, because it is very challenging when you have this multi-level process of educational transfer of knowledge, you always have to try to understand how explicit you can make the procedures or the concepts that you want to transfer, the more is implicit, the more you will struggle to transfer it from one individual to another. And usually, as strategic planning has to be used in a specific organization, that individual has to transfer along his or her team, and that would be another, second challenge.

Kodalle: In the military domain, decision making under uncertainty is one of the key elements of military decision making. You're always in a kind of VUCA environment, which is an American acronym for volatility, uncertainty, complexity and ambiguity. And that is usually the case right now, almost everywhere. The new normal. You live in a VUCA world, and a lot of things are just uncertain. And for the military leader they are very, very uncertain. This is a very typical German military approach to solving these kinds of problems: we provide a decision framework in which the military leader is able to assess the situation he is facing and, based on the latest data he receives in that situation, he is able to deviate from the plan. There is always a kind of a "commander's intent". Then there is the order that describes how a plan should be executed. But as a military leader at a lower level, you will

2 Mintzberg, H. (1994). *The rise and fall of strategic planning*. New York: Prentice-Hall.

probably sometimes realize that it is not possible to turn right because there is an immovable obstacle. Within that framework, you have the ability to turn left. If this is still within the *intention* of the commander. If the overall goal of the plan can still be achieved by actions that are not really intended by the plan as such in the operationalization phase of the plan, but you are still within the ends of the plan, then you are allowed to do so. That is a kind of degree of freedom that particularly in the German military, we are more or less famous for, because it gives us a lot of maneuverability and quick decision making.

Hopkins: Ironically, at least some militaries, fairly, mostly Western militaries, have this apparent contradiction between *hierarchy and agility* clearly in mind, perhaps more clearly than some local governments. The notion of what works on the battlefield is a clear recognition that the plan is not a rule, that the plan is a set of information about intentions, your organization, and how things work that gives you the ability to be agile on the battlefield at multiple levels. There's a quote I like about intellectual collaboration that says, "If we agreed on everything, one of us would be superfluous to the conversation. On the other hand, if we disagree about everything or have no common knowledge, we can't communicate." So the way I approach this is to try to learn the language of strategic planning and organizations, operations research, military planning, and so on. I think we could think about teaching a skill, which is learning to find people who have very different knowledge than you do, or context, or background, or disciplinary skills, and learn how to learn their language. So that you can communicate with them.

Mieg: Let me take up this point of common language and discuss the role of *formalization*. Decision theory has provided the basis for tools such as multi-criteria decision support. How important is formalization for any kind of transfer? It's important for teaching in higher education, of course, but what about real-world decisions, facing real problems?

Colapinto: Thank you for this question. Formalization, I think, is a way to actually support the diffusion of knowledge. What we just talked about is

widely used today in goal programming and multi-criteria decision making. We have a lot of models that are based on uncertain variables, we have new ways of incorporating the preferences and the changes in the preferences of the decision makers. I refer for example to *fuzzy theory* that is bringing that uncertainty into the formalization.³ And so this approach is something that allows the decision maker to make a better decision. I think this is a great advance, step in terms of decision making and planning.

Mieg: Thanks. Bert, what do you think about formal models and policy advice?

George: What I find interesting about multi-criteria analysis and other modeling is if you're trying to develop a strategic plan for a public organization that has a political layer to it, I'm thinking of local government with elected officials, ministries, and so on: How can you use models and multi-criteria analysis to try to inform policy making? To illustrate my point, I just wanted to tell a short story: We were consulting for an Eastern European country, an associated member of the European Union, and they were very proud to tell us that they had worked with the OECD and UNICEF to develop this very good, new, operations management-inspired performance dashboard. This was told to us by the Department of Planning and Strategy of the Ministry, and they actually received an award from the European Court of Auditors for developing such an impressive system. So they told us this and then I asked them: You know this is really interesting, so all the information is online. How many people look at it every month? They said 2 people. I said, okay, 2 people, and who are these 2 people? People in the planning and strategy department. So the point I'm trying to make is how do we – in the political-administrative context – make sure that this kind of modeling does not just become an adverse exercise, but *moves on to the policy level*?

3 Aouni, B., Colapinto, C., & La Torre, D. (2014). A fuzzy goal programming model for venture capital investment decision making. *INFOR: Information Systems and Operational Research*, 52(3), 138-146, DOI: 10.3138/infor.52.3.138

Hopkins: One of the things that is, or should be, a hot topic in the U.S. right now is: how do you create a renewable energy system where all the little things work together in a way that is plausible in the near term. Formalizing the notion of *feasible systems*, not because we think it's going to affect legislation this year or next year or whatever, but somebody has to do some systems thinking in a reasonably formalized way to be able to generate feasible solutions. We have a lot of experience and analytical tools for thinking about formalized systems. So I agree that some kind of formalization at some point in the process is essential. The more formalized you get, the harder it is to be talking about two different things and not realize it, even if you use a whole bunch of words that are different or have multiple meanings.

3. Time in planning

Mieg: I would like to start with the last round. I'm very curious about the role of time. It can be said that planning is something like inventing the future. What is the role of time in planning, a time to plan, planning time horizons, and so on.

Kodalle: In military planning, time is of the essence. Another quote: A good plan executed with vigor is better than a perfect plan executed later. Within the military decision cycle, we are in a competitive environment, and we want *to get into the enemy's decision loop* and just make better decisions faster. So any form of standardization or trying to get to a decision faster is very welcome. In NATO, we have a Modelling and Simulation Center of Excellence. We have standardizations just to speak the same language to be able to make smarter and faster decisions. And if I imagine a future where artificial intelligence uses all this data and relationships and models, that would speed up that decision-making cycle even more. In the old world, if you were at the corps level and you made the decision, 72 hours later a tank at the company level would move right or left or just start moving. If you can shorten that 72-hour cycle significantly, you have an advantage.

Hopkins: So the one thing I would say is that we want to think in terms of *spacetime*. Spacetime is - I don't think I need to elaborate - is somewhat interchangeable. So you think about both at the same time. And it's the obvious things about lead times and sequencing and learning and delaying decisions to learn and so on. Time and space are kind of critical, they're inherent in doing any of this. I think the way we've been discussing all this kind of simultaneous action thinking makes that clear.

George: I want to emphasize two things that I think are often neglected, the first being time. Many of you probably know the strategy change cycle from John Bryson's book, and the first aspect of that cycle is planning the planning process, the *initial agreement*.⁴ And I think that's something that's actually often skipped when people do strategic planning. So, deliberately thinking about how much time do we have to do this? How much time do we want to invest in this? I think that's so critical because if you start doing strategic planning, but it's understaffed, underresourced, underplanned. I mean, it often leads to disappointment, right? So we want to avoid that. So that's an aspect of time. I think that is crucial. A second aspect of time, and this is an evolution, and I'm sure many of you have seen this in your field as well, especially the military, is this emergence of the strategic foresight bodies. I'm actually doing some research on that right now. So the European Commission has a strategic foresights body. I know NATO has one. Singapore has one. So many entities are starting to do this, and the whole idea is to embed futures thinking into strategic planning, so we're trying to avoid just planning for one potential future, what we're taking into account, different scenarios, different potential futures, different key indicators, and how they might evolve. And in my conversations with executives and managers who are doing strategic planning, policymakers and politicians tend to respond much more positively to strategic foresight than to strategic planning. So connecting those two more and maybe using some scenarios to convince people to act and have these strategies could be a potential interesting area.

4 Bryson, J. M. (2005). The strategy change cycle: An effective strategic planning approach for nonprofit organizations. RD Herman, *The Jossey-Bass Handbook of Nonprofit Leadership and Management*, 2nd ed. San Francisco: Jossey-Bass.

Colapinto: As we mentioned before, sometimes time is the real essence because you need to be the first on the market. We know that first mover advantages or that you have enter the market at the right time are really important and crucial. Time is really relevant from an innovation point of view. Another important perspective about time is the role of the past, as sometimes decisions are made mostly based on the information that we have about the past. So we face these path dependencies that will shape our future and also our future decisions, our strategies. This is even more challenging because of these unstable scenarios that we are living in. Thus we could bring into this discussion the role of new technologies. So to bring together the market theory, decision models, and for example, artificial intelligence, or machine learning; we know that these tools will allow people to have future scenarios in 10s. These tools are going to do scenario forecasting in a very short period of time, and this is something that is going to push to make the decision in a very short period of time.

Mieg: Okay, thank you very much. So we are coming to the end of our discussion. It's time for everyone to make one last comment. Is there anything in the discussion that has surprised you? Who would like to start?

Hopkins: We've demonstrated to ourselves what we're talking about. That is, most of us have cross-language ability in at least one or two of the areas. So we've been able to talk to each other and, I think, actually communicate as opposed to just listening to each other. It's been useful for me to see how these areas, some of which I've done a fair amount of work in, some of which I haven't, are now active. I'm retired, so I don't keep up with these areas as much as I used to. So it's been interesting. But one last comment: in some ways not much has changed.

George: I knew these communities existed, but it's fantastic to see them in, well, I was going to say real life, but virtual life. I have a lot of Ph.D. students, and I always tell them that they shouldn't feel marginalized because they're focusing on what seems to be a very niche topic, because planning is

something that's been around for so long, and it touches so many fields. It's just a fact that we're sitting here and talking across communities about this topic of planning that fascinates us all. I think that's the way forward.

Kodalle: I would like to sneak in a quote from Bruce Lee: As long as humans have 2 arms and 2 legs, they are naturally very limited in the amount of movements they can actually do. And similarly in our way of thinking. From my perspective, on a very abstract level, maybe a plan is a description of how to solve a problem. Einstein once said: If I had 1 hour to solve a problem, I would invest 59 minutes in understanding the problem. From my point of view, that is what we really need to put the most effort into: understanding the problem and then trying to solve it. And planning and of course plans are very, very helpful in solving problems. Thank you very much for this very enlightening discussion.

Colapinto: I've been doing multi-decision model research for a long time, and I've recently moved into more qualitative research, and I've noticed that in terms of decision making, what companies and governments struggle with is defining the problems.⁵ Top-down policies tend to say, you need funds to buy new technology, because we are going to live in an industry based on this technology in the future, and you need to buy this technology. But they missed the core issue. The main challenge was to identify the real problem, which might actually be something else. This is something that planning needs to take into account: to spend more time defining, understanding, and formalizing the problem; and then you can start "planning". And the other matter is to try to be much more able to plan how to plan. So these are two important points that I will remind myself of more often when I do research projects.

5 Coco, N., Colapinto, C., & Finotto, V. (2024). Fostering digital literacy among small and micro-enterprises: Digital transformation as an open and guided innovation process. *Re&D Management*, 54(1), 118-136. <https://doi.org/10.1111/radm.12645>

Mieg: Let me summarize: People and managers are very interested in what the future looks like (foresight), but less interested in options (strategic planning), which can be overwhelming for some. In addition, we should allow enough time for planning, and that necessarily starts with trying to understand the problem. But as Lew Hopkins mentions, this is nothing new. Thank you all for a stimulating discussion.

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