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A project may be more than you think it is

Ricardo Triska[1]; Stanley Ruecker[2]

1 *Professor on Graduate Design Program at Federal University of Santa Catarina, Brazil*

2 *Professor in Design at the University of Illinois, United States of America*

ABSTRACT

This paper presents a particular concern about the idea of the Project, namely that its boundaries are fundamentally soft, in addition to being structured around nested processes. The word Project can be understood both in terms of its own definition and with respect to a variety of possible concepts associated with it. The development of a project is a process itself because it usually combines a set of different skills in order to get an appropriate solution for a given demand. Because of the human relevance to the management process, it is a research issue. According to this understanding, project management is presented as "the art of planning, controlling and executing a project in a way that ensures successful delivery of the desired outcome". At this time another question emerges from the previous discussion: that is, how to do a project? We present the simple answer: Describing the steps on the path to transform an idea into a product is a project itself. It is absolutely expected that each one of the steps described are developed using an understanding of the whole cycle, reinforcing the design approach as non-linear and unpredictable even taken as formal procedures in a product development process.

PALAVRAS-CHAVE

Design Management;
Project Management;
Project Concepts;
Design Process;
Problem Solving

Template for papers of Design & Technology journal

ABSTRACT

Este artigo apresenta uma preocupação particular sobre a ideia de Projeto, destacando que seus limites são fundamentalmente tênues, além de serem estruturados entre processos em rede. A palavra Projeto pode ser entendida tanto em termos de sua própria definição quanto a variedade de conceitos associados. O desenvolvimento de um Projeto é, por si só, um processo porque usualmente combina um conjunto de diferentes habilidades para garantir uma solução apropriada a uma demanda. Considerando a relevância da intervenção humana na gestão deste processo, um Projeto pode ser considerado um tema de pesquisa. Seguindo este entendimento, gestão de projeto é apresentado com "a arte do planejamento, controle e execução de um projeto no sentido de garantir uma entrega bem-sucedida de um resultado esperado". Neste momento, outra questão emerge desta discussão, qual seja: como fazer um projeto? Apresentamos uma resposta simples: descrever as etapas no caminho de transformar uma ideia em produto é um projeto. É esperado que cada uma das etapas descritas seja desenvolvida a partir do entendimento de todo do ciclo do processo, reforçando a abordagem do Design como não linear e imprevisível ainda que considerando os procedimentos formais no processo de desenvolvimento de produtos.

KEYWORDS

Gestão de Design;
Gestão de Projetos;
Conceito de Projeto;
Processos em Design;
Solução de Problemas

CONTATO: Ricardo Triska – *ricardo.triska@gmail.com*

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1. INTRODUCTION

The word project has different dimensions. One of them is its own meaning, and another is each concept associated with it. If we look up the meaning shown in the dictionary, we find project identified as a noun and is defined as "an individual or collaborative enterprise that is carefully planned and designed to achieve a particular aim". The condition of "planned and designed" plus the reference to "collaborative" associated with "particular aim" leads us to another perspective. In the management process the word project is commonly used and its meaning is known worldwide. Once associated with management, the project context becomes different and takes a wider dimension. Project Management is commonly presented as progressively dependent phases or steps made to achieve a result for delivery, "however, it is focused upon short-term objectives" (Baker, 2018).

A project development is a process itself because it usually combines a set of different skills to get an appropriate solution for a given demand. At one time, the set of skills and the solution procedure represented the most complex combination of the project development process. However, today a large number of different methodologies is available, each one presenting itself as a kind of perfect match to unsolved problems. But all of them have a very equal starting point: the project and its related concepts as representations of an ongoing process. People defending any particular methodology always show specific boundaries that guarantee its validation through achieving expected results under specific conditions. (Baker (2018); Jovanovic & Beric (2018)). What is in common is the remark that what moves the process forward is a basic understanding of the demand. Knowledge of the demand provokes the decision to improve a solution for it and, also importantly, knowledge of the demand becomes a guide to define the team skills, facilities and financial aids needed to guarantee its development to achieve the expected results. With this understanding, we quote that " A theory of project management should be prescriptive: it should reveal how action contributes to the goals set to it" (Kostela & Howell, 2002). According to this belief, it is possible to infer that what is most important is the problem understanding and description, despite whichever project methodology is adopted. In fact, this capacity for understanding is usually taken as a project resource instead of being considered as a human (personal) skill. At this point the project concept becomes as fragile as it is important, and the hardness coming from a preconceived solution methodology may result in project failure.

The project must be managed, and this job is done by humans. Because of the human relevance to the management process, it is a study issue. The book Management it's not what you Think by Henry Mintzberg; Bruce Ahlstrand; Joseph Lampel shows us a remarkable interpretation of the concept of management and the manager as well. They compare the manager to an orchestra conductor, who needs to know each instrument's timing in the score, while at the same time establishing a concept for the performance. There is, however one distinction: "But the conductor has the composer's score: he is only an interpreter. The manager is both composer and conductor" (Mintzberg; Ahlstrand; Lampel - 2012, pg.05). This remark is very important considering the difference between composing and interpreting, for instance, a play script. While composing, the score is defined by imagination and creativity combined with the composer's knowledge about the quality and timing of each instrument. The score will be the same each time it is performed. Ever. That's why the project manager is different from the orchestra conductor: the project process is always different because of the environment and the players. Even if you bring up a previously successful strategy to apply to a new project development, the manager will reset it all according to the team skills and the demands of the brief. According to this understanding, project management is presented as "the art of planning, controlling and executing a project in a way that ensures successful delivery of the desired outcome. It is widely used in organizations as a complex set of tools for delivering strategic goals and objectives." (https://mymanagementguide.com/basics/what-is-a-project/)

With this understanding, we may compare doing a project to a planning process. In a planning process, you must decide what to do in order to reach an expected goal. It includes also the timing and the resources, of any kind, financial and human competencies as well, to present a satisfactory result. So, we may equate the terms (project and planning) to the same meaning once one depends on the other if we are performing any function in a corporate job.

2. THE PLANNING PROCESS

Each decision taken is closely linked to the planning process, ever. If you're on a highway, for instance, you have to choose the better path to reach your chosen destination. You may be exposed to a speed limit signal, a lot of detours or exit options, difficult traffic conditions, and even the weather, but you must make the decisions that help you to get the best path up to the destination that you have taken as a motive to get you on the highway. Also, when you'll decide the luggage for your trip, you must decide what set of clothes you'll take to secure your affordances away from home. Similarly, if you are playing chess, you also need to get a sequence of plays to support your intention to win the game. This sequence is strongly related to your own skills as a chess player. When a spreadsheet is done to show the financial transactions, for instance, it also is related to a planning process. In human relationships, a plan also can be recognized even if it's not written or recorded in any form. In this case a smile with an eye blink may reveal all your thoughts (plans) … it is a plan itself.

Returning to the project scenario, the project will always be related to planning somehow to reach a goal, even if we don't realize that. It means that the action sequence that you'll choose will declare how close to the previously defined goals you were while you decided to reach them. So, planning might be understood as formalization of a sequence of actions to structure a set of procedures. And the goal, in its turn, might be understood as the product of a process: it becomes the reference to evaluate the whole process in terms of how successful it was. Returning to the trip route, if one has to go to some place, he/she must know which path he'll (she'll) take in order to reach it and combine it with a set of previous factors, such as how much time It will take to complete the journey, how much money does he/she have to complete it — will it be necessary to stop for rest on the way?— what kind of vehicle is available — does it fit with the road characteristics? and so on… It's largely known that some plans aren't successful, and others are. Why does it happen? The prime reason is the objectivity of the plan. It is determined by the planner's capacity to describe a functional interpretation of the goals and to associate that understanding with the set of procedures chosen to achieve it. It could be compared to how to "tune in" to the problem when you decide to solve it. Yes, a goal might be, although it is not always, to solve a problem.

Any plan is related to a motivation or a purpose. This might be from different perspectives, whether corporate or personal. As a corporate issue we may list, for instance, the market situation, branding renewal, a new product, or a client portfolio. A personal issue, in its turn, might be the expectation to acquire a better income, hone personal skills, or achieve

success in the career; it might also be a more private (hidden) one such as wanting to buy a brand-new motorcycle. At this moment it is important to highlight the people (the individuals) associated with a project. Although the formal objectives are important, if we don't match the individual's skills and personal goals to the whole project's goals it might be a serious candidate for failure.

The planning also brings constraints. We are interested in highlighting two of them: the plan's complexity and the plan's purpose. A plan's complexity is defined as a result of the ability to interpret the evaluation of the past moment and to identify (and represent) the expectations of the future moment, having by parameter the focus of the organization's business goals. A plan's purpose is taken as a guide to the process of changing references. In other words, it observes what you expect after the planning process has been completely executed.

Combining all these remarks together, it may be understood as a landscape or a scenario that will be the guide for all decision-making processes associated with each one of these steps, as shown in Figure 1.

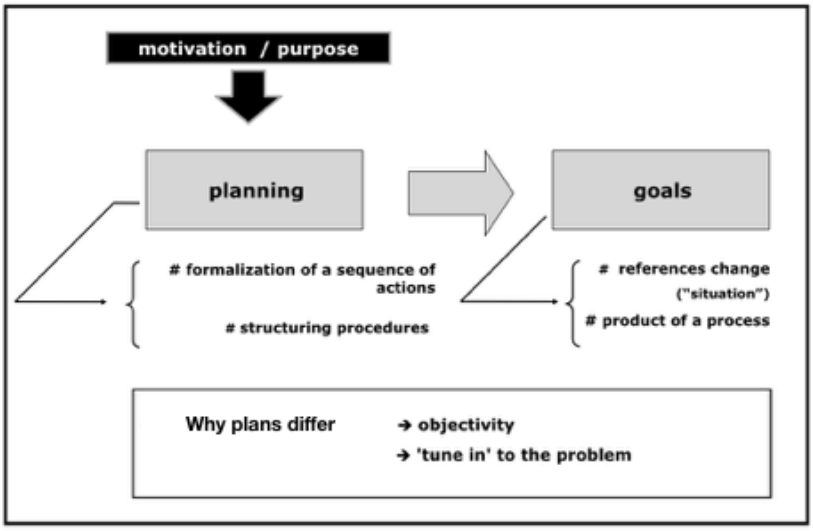


Figure 1 The plan's scenario (by the authors)

Once considering the described scenario as a reference to all perceived goals, people must be able to offer an understanding of the environment "status" before the project starts and compare it with a projection to the new scenarios of the same environment after the project has been finished. Once dealing with past moments, it is possible to get a set of performance indicators and proceed with an evaluation study to define their dimension of importance in the environment (company, for instance), and use it to establish the goals previously discussed in this paper. In the future, in its turn, we deal with expectations, and the objectivity of the project will interfere with its understanding and, possibly, also with the decision of taking it in advance. This is an opportunity to ensure if the planned actions are close to what you have identified as a problem. It's defined as the plan's context, as shown in Figure 2.

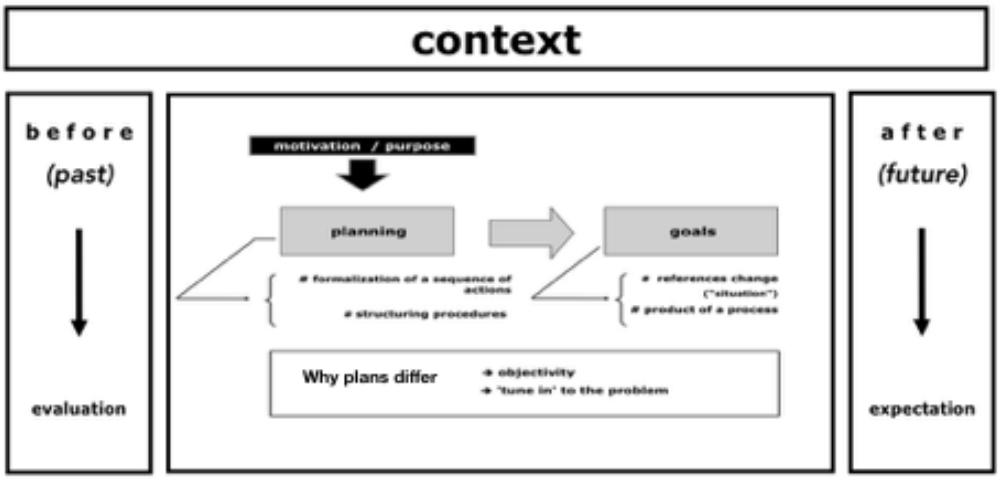


Figure 2 The plan's context (by the authors)

Once the expected situation has been defined at the moment after developing the set of predicted actions, it is necessary to deal with all of those different performance indicators and identified needs in order to describe a result and achieve it. At this moment, the project concept becomes strong and will define all the goals and needs to get it. The project has three basic moments that are defined by three steps: understanding, planning, and doing. During understanding, an interpretation of all scenarios is taken and applied to the second step that is planning. In the planning moment, all the evaluation indicators are declared and described in order to define and guide the development process, that means the moment for doing it. These three basics steps become four different, ever sequential, phases: beginning, planning,

executing and finishing. It's very important to define the boundaries of each one and, perhaps more important, to define what each phase will deliver to the next one and what it is possible to expect from the previous one. This understanding brought us the information concept as a project's need to guarantee its success, before than any other request.

3. PROJECT PHASES

In the beginning phase, it is necessary to define the main idea of the project, as well as its demands and needs. It's also important to be sure about the difference (and/or complementarity) among each concept across the entire project timeline. The second (the next) phase is planning. At this stage it's important to define the project's scope, schedule, costs and, especially, risks. As scope we may understand the limit (or limitations) of the project; it means what it is reasonable to expect after the project will be finished and, also importantly, what it is not possible to get. The definition and prediction of costs is a huge issue, because it is a risky moment for the whole project. As risk we may take all indicators that are hard to manage and, especially, all of them we were not able to identify in the previous phase of the project. At this moment, a project's "opening" document is necessary to formalize all the responsibilities from each one that is taking part in it. This document will become very important at project finishing time.

At executing time, the project depends on two major actions: monitoring and evaluation. There are a group of authors who use the term controlling instead of monitoring. Considering each concept and exploring it, we adopted monitoring because of the versatility associated with it and the flexibility it suggests to insert new indicators as (or if) needed in order to preserve all the issues defined in the project's planning step. Moreover, this understanding highlights the concept of nonlinear solutions to the Design issues, while at the same time don't reduce its scope.

As important as knowing how to begin a project is to know how to finish it. After executing, it is possible to recover all errors and successes as well, identified in each phase throughout the project. This list provides an opportunity for a learning process in project development. It can also be registered in order to get a formal documentation of the whole process. At this moment, all obligations will be highlighted to compare with the result delivered and to define the responsibilities if any misunderstanding is perceived. That's one of the reasons to create a document in the planning stage. The sequential cycle is demonstrated in Figure 3.

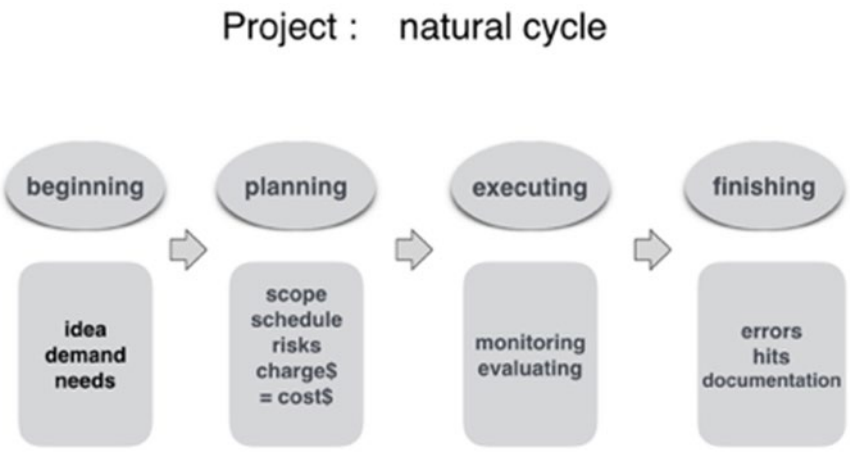


Figure 3 Project's natural cycle (by the authors).

4. IDEAS AND DEMANDS

So, it's important to set the difference between idea and demand. To orient this discussion another question appears: which one comes first? A demand may be perceived while using some device (whether successfully or not) and then emerges an idea. In a short view we may consider they are twins... Demand (under project issue) is what is needed to develop an idea until it becomes a product. But what is needed also can be taken as a resources concept. To delimiting the difference between these two concepts, we present the user's demands as requests and the project's demands as resources. The user's request list becomes the project goals and boundaries. The project's goals and boundaries, in their turn, become resource needs.

At this time another question emerges from the previous discussion: that is, how to do a project? We present the simple answer: Describing the steps on the path to transform an idea into a product is a project. So, we can rescue a sequence, that is perceived as a natural one that is: demand becomes a project that becomes a product. A demand is a kind of result when the perception of ideas and demand are compared to each other.

The project, in its turn, is a result from the combination of the requests identified and (or plus) the resources needed to transform them into a product. Once we get a product, its usage evaluation may also be analyzed to define a new demand, as shown in Figure 4.

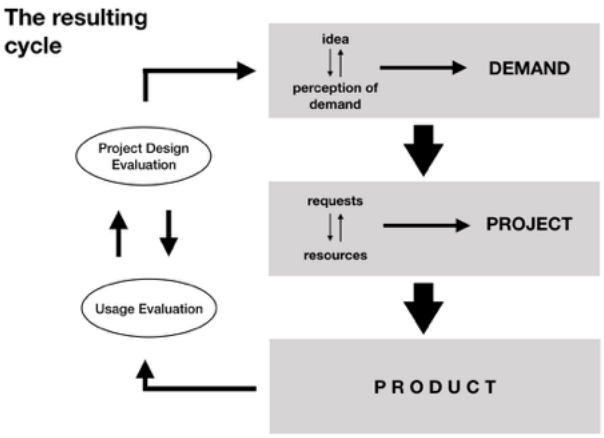


Figure 4 Product cycle (by the authors).

As we have previously remarked, a project is not a linear process. It's absolutely expected that each one of the steps described are developed using an understanding of the whole

cycle. It means that while doing the Beginning step, it's necessary to reach the Finishing step, in order to be able to jump to the next one that is Planning. Once we start Planning, it's expected that we move from the Beginning step through to the Finishing one, in order to jump to the next one that is Executing and, again, start from the Beginning step, into the Executing one in order to ensure all the inputs needed for successfully Finishing and then proceeding to the next step (Figure 5).

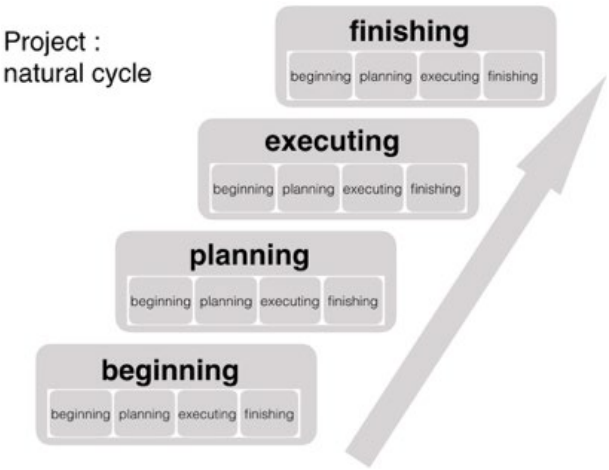


Figure 5 Project cycle (by the authors).

It appears that each project step becomes a project itself, depending on the whole project's steps to get ready for the next one. As a matter of fact, it is the actual procedure... In this way the concept of reentrancy is presented, linked to the project concept, reinforcing the Design approach as non-linear and unpredictable even taken as formal procedures in a product development process.

As previously remarked in this paper, once you are driving the project to a new phase it is important to guarantee that the previous one was appropriately finished with all expected deliveries up to date. All these deliveries must be checked before going to the next sequential procedures.

This checking process is guided by the finishing phase's documental report on which all the situations related to the phase development should be registered and merged to the request list that must be described in the Project "opening" Contract (as shown in Figure 03). It becomes a new beginning, and it will be repeated at each project phase.

Once you have the deliveries accepted, the beginning phase is finished and the planning process, associated with the current phase, will take place, and support the project to reach the next phase that is named, developing one that, in its turn, is expected to succeed and reach the finishing phase. It means that each phase needs to pass, at least once, through the four (4) phases identified in order to attempt to achieve the whole project's goals. In other words, it is useful to consider that each project phase is a project itself and manage it .

As a final summary we may reinforce the following as findings:

- When does a project begin? As important as when is to define where and how it will take place, for whom and why is it being done.
- Each stage of a project is a project.

REFERÊNCIAS

1. ABYAD, A. Project management: science or a craft? Middle East Journal of Business. 14(1). Jan.2019.
2. ABYAD, A. Project management, motivation theories and process management. Middle East Journal of Business. 13(4). Oct 2018.
3. BAKER, B. Project quality management practice & theory. American Journal of Management. 18(3). 2018.
4. BORSCI, S.; KULJIS, J.; BARNETT, J.; PECCHIA, L. Beyond the user preferences: aligning the prototype design to the user's expectations. Human Factors and Ergonomics in Manufacturing & Service Industries. 26 (1). (2016).
5. GINGNELL, L.; FRANKE, U.: LAGERSTRÖM, R.; ERICSSON, E.; LILLESKÖLD, J. Quantifying Success Factors for IT Projects—An Expert-Based Bayesian Model. Information Systems Management, 31:21–36, 2014.
6. JOVANOVIC, P. Beric, I. Analysis of the available project management Methodologies. Management: Journal of Sustainable Business and Management Solutions in Emerging Economics. 28(3). 2018.
7. KOSKELA, L. & HOWELL, G. A. (2002). The underlying theory of project management is obsolete. Paper presented at PMI® Research Conference 2002: Frontiers of Project Management Research and Applications, Seattle, Washington. Newtown Square, PA: Project Management Institute.
8. OLUGBOUEGA, O. Specific roles of builders in building information modeling process. Journal of Construction in Developing Countries, 23(2), 27–42, 2018.
9. TELLER, E. Effectiveness in teaching project management fundamentals based on student evaluations. International Journal of Business Research and Information Technology, 5(1), Winter 2018.
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