Patterns for innovation – 5 patterns for idea implementation

Christian Kohls (TH Köln)

Abstract: Creative thinking is a key skill in more and more domains. Creativity is required to innovate, develop new ideas, get deeper insights, address challenges and resolve conflicts. In this context we understand creativity as the process of creating and developing new and original ideas as one step in the innovation process. The patterns in this paper are about implementing ideas. They are part of a larger language for innovation and idea generation. After finding good ideas and selecting the bests, one has to find strategies to actually implement ideas.

IMAGINE THE FUTURE motivates you by having a clear goal and vision.
JUST DO IT! reminds you that each long journey starts with a first step.
SIMPLE PROJECT ORGANIZATION ensures that you are not overwhelmed and get lost in too many activities.
ACTION LIST integrates several action steps into a feasible list as part of a project.
NEXT PHYSICAL ACTION is about planning in a way that makes progress more likely.
PROTOTYPES check whether you are on the right track as they can practically show what works and what needs refinement.

1 INTRODUCTION

Productivity and creativity go hand in hand. Creativity means the generation of ideas or products that are novel, implemented, valued and socially accepted (Csikszentmihalyi, 1996). Likewise, DeBono (2009) points out that creativity does not only mean to create something new, but that the new concept needs to mean progress and it needs to create values. To come up with great ideas one needs to understand the situation, do research and divide concepts into their parts. There are already some beautiful attempts to capture patterns about creative collaboration, presentation and learning in pattern languages (Iba, Ichikawa, Sakamoto & Yamazaki, 2011; Iba, Matsumoto & Harasawa, 2012; Iba & Isaku, 2013). Moreover, there are many collections of creativity methods, techniques and tools: Lateral Thinking (De Bono, 1990), Thinkertoys (Michalko, 2006), How to get Ideas (Foster, 2007), or 101 Design Methods (Kumar, 2012), to name just a few.

However, innovation is not just about having extraordinary ideas. It is about making ideas happen. You may have a lot of ideas on your mind – projects to do. However, we all have limited resources. We need to focus on those projects that really matter and self-organize to be productive. Brian Tracy (2013) writes, “The ability to concentrate single-mindedly on your most important task, to do it well and finish it completely, is the key to great success, achievement, respect, status and happiness in life.” The patterns in this paper support this process as they let you focus on important tasks. They are based on good practices in the area of productivity, time-management and project organization. Once you know what your goals are, you can focus to achieve those and post-pone or cancel other businesses. It is better to finish one project after another rather than running ten projects at the same time and finish none of those. The mantra, thus, could be that less is more. Even if all ten projects matter, it is a better idea to finish one project after another. This way, you produce results continuously.

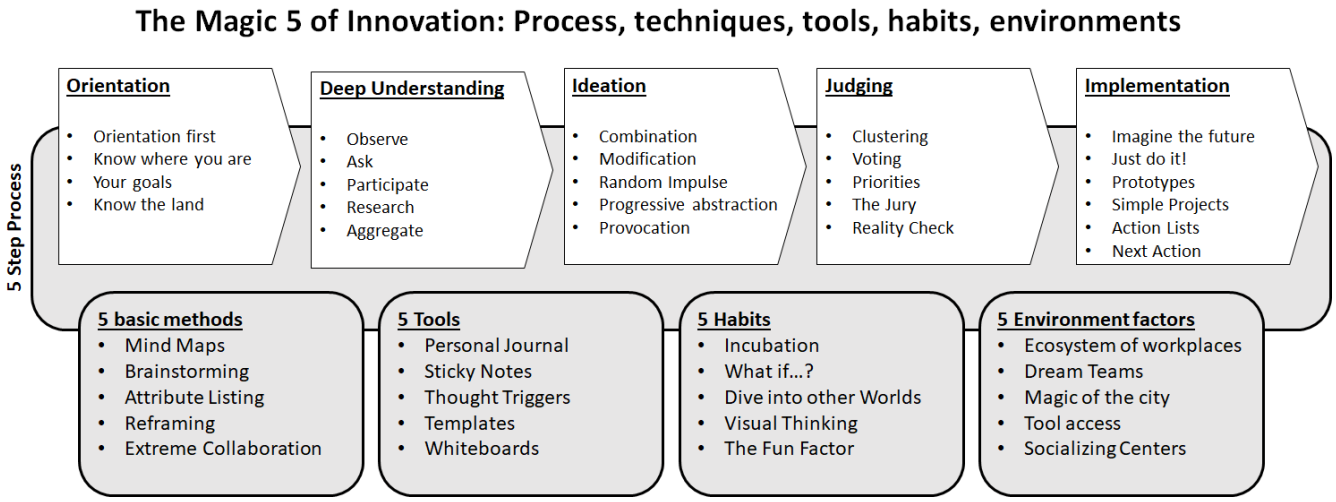
Running too many projects at the same time is overwhelming. Switching between too many contexts costs cognitive resources, set up time and often you need to be at different places. Having too much on your plate could also stop you from starting at all because you do not know where to start – too many options, too little quick successes. On the other hand, once you get started, one outcome leads

to another and you will soon see achievements. Also, very often the only way to figure out how to achieve something is to actually do something (Allen, 2015). Hence, the pattern JUST DO IT. All the productivity gurus will tell you that the only way to success is action. The pattern in this paper are about starting actions, specifying actions, and organizing actions.

The patterns are related to the Fearless Change patterns (Manns & Rising, 2015) about change management. However, the present patterns have a stronger focus on implementation and execution. They are mainly tools to organize yourself and get your mind free. They help you to better organize your mental resources, by focusing, using external storage (such as lists for projects and actions), and reserving time to plan and reflect.

In the same ways as there are many common methods for creative thinking, there are several business and time management principles that can be used to make the success of a project more likely. This paper adds to a body of patterns on creative thinking from the same author published on past *PLoPs, including: Patterns for Creative Thinking (PLoP 2012), Dream teams and the right place (EuroPLoP 2014), Patterns for Creative Thinking - Idea Generation (EuroPLoP 2015), The Magic 5 of Innovation (PLoP 2015), 5 Habits, 5 Methods (VikingPLoP 2016).

An overview of the languages is given in the next figure. It shows that there are patterns for different phases in the innovation process. Section 2 will provide an overview of the full innovation process as it is captured in this language. As this paper focusses on the implementation phase, section 3 will shortly introduce the patterns for implementing ideas. The succeeding sections will contain the full pattern descriptions.



Overview of the pattern language

2 INNOVATION AS A JOURNEY

The next part will provide an overview of the patterns of the pattern language. Each pattern is written in capitalized letters and a short description is given in the context of the language. The full descriptions can be found in the papers mentioned before.

Innovation…it is a journey. If patterns are both a process and a thing, then this journey towards innovation is the *thing*. You could also see this journey as a *process*. Then, we need to differentiate between the process itself (the thing), and the processes that create that process.

But let's stick with the journey as a metaphor for the relations between the patterns. Innovations – that's the target of each journey in our case. But we don't know the target yet! Otherwise it wouldn't be innovative, would it? Nor do we exactly know how to get there.

But while we cannot see the specific manifestation of innovation yet, we can already think about our goals – that is where do we want to be in the future? Sadly, very often we do not take the time to set our own (or organizational) goals.

2.1 ORIENTATION

Every good journey starts with orientation. Before you start thinking about where to go, you should think about WHERE YOU ARE! What have you already achieved? What are your skills? Which friends have you made? Which resources are available? What are your life experiences? All these questions give you a better understanding of where you are and what you are. This is important because you need to understand what opportunities you have, and which challenges you face in your life.

Then you should FIND YOUR GOALS. What's missing in your life (or organization)? How do you want to contribute to the world? What does matter to you? Which things are meaningful to you?

Because you know WHERE YOU ARE, you can identify which goals are easier to reach, and also which ones are more important for you. If surfing is your hobby, you may want to find new tricks or tinker with the board. If you are in politics, you may want to innovate in peace processes. So it is important to understand both, your current situations and the situation you are dreaming of.

Before you start your journey from WHERE YOU ARE to your goals, it is important to KNOW THE LANDSCAPE. How to move within this landscape can sometimes be better understood by knowing STORIES about the landscape: what are typical actions, events, obstacles, etc.? On your way to the goal, there are many more people involved – STAKEHOLDERS who have their own interests. Some may support you, others may block you. Knowing and collaborating with the STAKEHOLDERS is key.

2.2 DEEP UNDERSTANDING

You may wonder how can you learn about the landscape, the stories about it, and the stakeholders that act in it? It's not enough to get just a superficial impression. This is serious. Knowing everything but missing that one dead end or ignoring that one obstacle could end the journey or cost you a lot of extra resources. Therefore, you need a DEEP UNDERSTANDING of the field. Use the methods of science and research to get that DEEP UNDERSTANDING. OBSERVE what happens in the field: how do people act (act actually, not just what they think), what are the processes, what are common pitfalls? Observing is great because you see what people would not tell you (it doesn't matter whether it's because they don't want to or can't). However, observing does not lead to full understanding. Of course you can speculate about why people act in certain ways or why things are the way they are. But hey, why not just ASK them? This will give you deeper insights, even if you do not get full answers. The repertoire to ASK others is huge, including quantitative methods such as surveys or qualitative methods such as interviews. And if you really want to get the feeling for a situation, you should PARTICIPATE, allowing you to feel the pain and pleasures alike. Ethnographic methods are all about participating. Observing, asking and participating all help to get a better understanding – yet they are quite time consuming and expensive. Very often other people have already done the RESEARCH for you. That's why you should read journals and publications, scan databases, patents, and statistics. It's not as good as doing your own research but it's certainly broader. All these different approaches have their strengths and weaknesses. It's important that you combine them and

AGGREGATE the results to get a complete picture. Aggregating the results will help you to identify clusters, relations, contradictions and gaps (that is, areas where your understanding is superficial rather than deep).

As you learn more about the world, you are changing your own position (you progress) and you may change your goals. So, you should keep track of your ORIENTATION. Deeply understanding the field/the landscape will help you to identify areas where you need to innovate. Where are opportunities? Where are the biggest problems?

2.3 IDEATION

When you are facing a design challenge you are looking for working solutions. Sometimes, potential solutions are obvious, or new ideas can be derived easily by pure reasoning. Sometimes, others have found good solutions – and if you are lucky they shared them as a pattern. Sometimes there is no solution yet and there is no straight forward way to design a new solution. And this is where you need to get new and creative ideas.

Without those ideas you cannot reach your goals! (Or you cannot reach them conveniently). In those cases you can apply systematic IDEATION to generate new ideas. Not every idea will be a winner. Basically, most new ideas are COMBINATIONS of existing concepts, MODIFICATIONS of an existing concept, or REFRAMINGS of existing concepts (i.e. putting things into new uses). To let go of existing concepts and mind sets, we often need a kick into a new direction – that is a RANDOM IMPULSE. To find new forms, it can be helpful to let go of the old forms by focusing on their function. PROGRESSIVE ABSTRACTION does this over several levels (e.g. what is the function of a car, what is the function of traveling etc.).

These IDEATION patterns will produce a lot of new ideas. But not every idea is great. And you can't implement all ideas anyway. So you need to select and prioritize them, some JUDGING is needed! Very often, an eloquent judgement requires DEEP UNDERSTANDING, and you may need to do additional OBSERVATION, ASKING, PARTICIPATING, and RESEARCH.

2.4 JUDGEMENT

Identifying which ideas fall into the same category makes it easier to get an overview and select the right ones. By CLUSTERING the ideas, one can identify idea categories. When ideas compete, a group can do some VOTING on the ideas and derive PRIORITIES. It is also important to evaluate the value of an idea with different eyes – that's why you need a JURY: positive thinkers, skeptics, realists, makers etc.

Once you have found the most promising idea(s), you should not forget to make a final REALITY CHECK. Can you really do this? Do you want to do this?

3 PATTERNS IN THIS PAPER

The trouble is that most ideas never become a product that gets shipped. Whether it is the new killer app, a research paper, a new business, or personal fitness plan. Finding ideas is easy. Finding really good ideas is hard. Identifying the best ideas is a rare skill. Implementing these ideas is mastery. The following patterns provide solutions to getting more ideas implemented and making them a success.

IMAGINE THE FUTURE helps you to emotionally engage with your ideas. You have to develop a clear vision of how the world will look like once the ideas are implemented. What does it mean to you? It is about visualizing the outcomes.

And then, JUST DO IT! THE JURY and REALITY CHECK give you the confidence that you are working on the right thing. When you IMAGINE THE FUTURE you feel excited. All you need to do is take the first step now!

NEXT PHYSICAL ACTION is about identifying and formulating the next action step that can be executed. Such action steps have to be tangible and express physical action that can be directly executed. That's how you make progress. You should have a list of next actions, an ACTION LIST.

SIMPLE PROJECT ORGANIZATION (aka Plans, Steps, Milestones, Deadlines, and Reference Material) identifies tasks that need multiple actions as small personal projects, including planning a birthday party, finding a gym, learning a new programming language etc. It's about managing your personal projects which include the ideas you want to make happen.

PROTOTYPING should happen early in your project and never stop. If you start with prototypes you are making something and you can keep your Next Action specific. A prototype allows deep elaboration of your assumptions and you can jump back and forth between making, ideation and judging. Failures in a prototype will require new ideas. Another Reality Check may even kill the project. But it can also encourage you to continue and identify new Next Actions.

Each pattern description consists of the following structural parts:

Pattern name: the headline of each of the following sections is the pattern name
Context: The context is written in plain text.
Problem: The problem statement is highlighted in bold.
Forces: The forces discuss the details of the problem. The section is in plain text.
Solution: The solution consists of two parts. The core of the solution is written in bold. The discussion of the solution along with examples and consequences are in plain text again.

The style is adapted from "A Pattern Language" (Alexander et al., 1977) and is now used for many pedagogical patterns.

4 IMAGINE THE FUTURE

You have found a good idea using one of the IDEATION patterns. You have to decide to implement the idea, after a REALITY CHECK and a critical review by THE JURY.

There are many goals or projects in your life, and it's just too easy to get off track. Motivation is needed in order to pay attention to really important goals.

Short term decision making depends on long germ goals. Your actions need meaning, and meaning comes from having a clear vision, a set goal.

To focus on the most important task in your life can be the key to success. Very often day-to-day business distracts us from our focus and goals. It's easy to forget about your important goals, so you need to be reminded of them constantly.

You need to feel how the goals come to life. Unless you see yourself doing something you won't do something. The focus of our minds affects what we perceive how we perform (Allen, 2015).

Therefore, imagine the future by envisioning how you have already achieved the goals. How does it feel?

Once our minds have clear goals – goals that are specific and graspable rather than abstract – our minds start working on finding solutions to reach the goal.

Envision how you have reached future. Write down how the future should be. Use active language: present tense, positive voice and first person (Tracy, 2012). Put your future statement somewhere where you can see and read it regularly (Allcott, 2014).

Be optimistic and convince yourself that you can achieve the goal. Be confident about it. Continually visualize your goals. Having this vivid picture constantly alive will positively control your thoughts. You will pay more attention on those things that can lead to the goals. You will find it easier to implement SIMPLE PROJECT PLANS and identify the NEXT ACTION.

Having a clear "mission statement" about your future and a clear picture of it will provide purpose to your actions as work towards your goals. Many sports men have applied this principle – they imagine how they win and this gives them psychological advantage over their competition. Of course, a lot of practice, will power, talent and effort is needed as well. Don't fall into the trap of the "law of attraction". Imagining the future will not automatically bring that future to life! But you need the positive focus and optimism to orient your actions towards the goal. Having a real picture in your mind about the positive future will motivate you and help to pay attention to the right actions.

5 JUST DO IT!

You have decided to follow up on a specific idea and you IMAGINE THE FUTURE. You really, really want to do it…but it's such a long journey to your goal.

Seeing a long journey ahead of you can overwhelm you. Because it's such a big thing to do, you procrastinate and engage yourself in activities that seem to be easier to manage. You think: once I have done all these other little tasks I will be free to focus on the one big goal.

But of course there are always other things to do. Very often the most talented people don't start a long journey. They know that they could do it, and because of that, well, they think they can do it later. But what's the benefit of being a genius if you only talk and think about great things without doing something about it?

Instead of choosing the easiest quickest tasks, it's often more goal oriented to start with the most difficult and time consuming task first. The key to success is action.

You may fear a long journey. You have doubts and you are afraid of failure. But each long journey starts with a first step.

Sometimes you don't know whether one direction is the right one for you. But without testing the water you are in a deadlock situation, bouncing between different options. It is better to make a wrong decision and correct it rather than making no decision at all. Delaying the decision may cost a lot of energy and willpower (Baumeister, & Tierney, 2011).

Very often it is hard to start something but once you work on it for five minutes you soon experience a state of flow (Csikszentmihalyi, 1996). You are fully engaged in the task once you get going. As soon you experience progress and see first results, you are more encouraged to move on (Belsky, 2010).

Therefore, just do it. Start to work on achieving your important goals now! Not after you have finished all the other stuff.

Start with your major tasks right away. Divide your path into smaller sub goals that can be managed. It is easier to focus on small and manageable steps. Make your steps specific and concrete. Define the NEXT ACTION. You can accomplish great things by taking one step at a time. Each task completion will give you a positive feeling and you will be motivated to do the next step. Visualizing your progress rather than the long way ahead can also help.

Self-discipline is key to successful execution (Tracy, 2014). Once things have started, it is easier to follow up. Instead of waiting for the right time or look for excuses why it is so hard for you to achieve your goals, you should start acting and proceed towards the goal.

One way to avoid procrastinating is to start with the most unpleasant thing first: Eat that frog! Once you have started with that unpleasant first task, everything afterwards is easier and more pleasant (Tracy, 2013).

Taking actions lets you understand whether you are on the right track. Are you really doing what you want to do? It gives you the opportunity to either correct or continue what you do. Making things helps you to get a better understanding than just thinking about it. PROTOTYPING is a good way to get started and see first results quickly.

Sometimes it is easier to get things going if you know that they don't have to be perfect. Very often making things perfect takes 3-4 times longer than making them just good enough. So, if you are blocked by fearing that it takes too much time, do not aim for the perfect solution. Most of the times a good enough solution is all that is needed. And once you have that solution you can still decide to move on and polish it. But now you are starting from a much better position!

6 PROTOTYPING

You are working on a project and have your first ideas.

Thinking and rational analysis will not reveal the true properties of a solution. There is a difference between theory and practice.

It's hard to imagine how solution ideas feel and operate in the real world. Very often there are hidden side effects that can only be seen if the real artefact is tested.

It is not always possible to work with real materials right away.

Exploring concepts or models that have impact in the real world on a theoretical level only will not show all effects of their practical realization. It's hard to imagine how the objects feel and operate in the real world. Very often there are hidden side effects that can only be seen if the real artefact is tested. At some point you need to test your ideas and concepts.

Design thinking suggests that creators should have a "conversation" with physical artefacts to test their real properties. However, sometimes creating and manipulating objects in the real world is very difficult or expensive. Hence, it is not always possible to work with real materials right away.

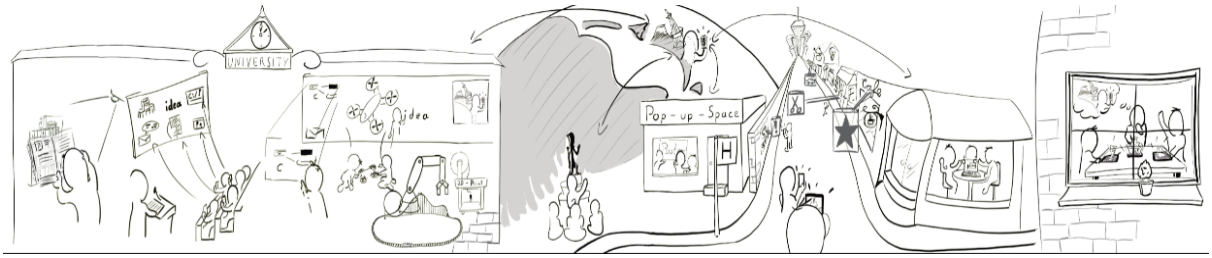
Therefore, use working prototypes to test their real properties and get a better understanding of the problem. Prototypes help you to refine your solution iteratively.

Many variants of an object can be created quickly to explore alternative properties. Prototypes can be touched or visually explored to determine their properties. Prototypes help you to better understand your solution and the problem.

There are different categories of prototypes, for example: sketches, mockups, wireframes, clickable screens, diagrams, storyboards, roleplay, physical models, minimum viable products.

Sketches can be used for paper based prototypes using sticky-notes, pen and paper. There are also digital versions to sketch solutions. Sketches can be created easily in groups.

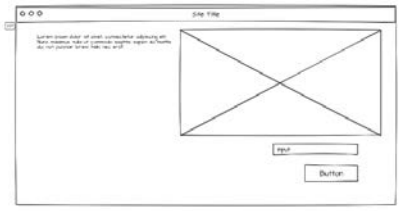
Sketches can show user interfaces.

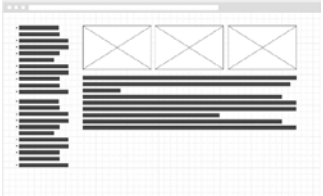


Sketches can also show scenarios. This sketch shows hybrid education, that is a mixture of online and offline learning, on-campus and off-campus.

Mockups pretend to be the (ready) product. They show the product in action. Very often we find mockups with fully designed surfaces but not in full working mode. They can be created with tools such as Photoshop, or they can be based on design templates (e.g., Wordpress themes).

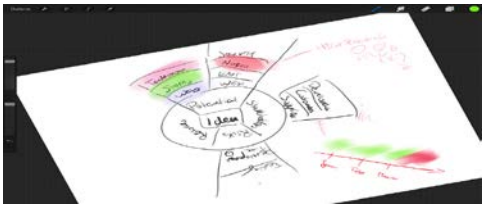
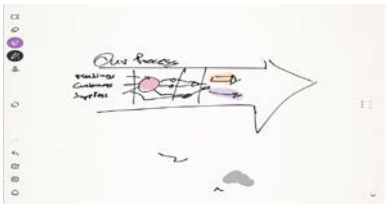
Wirerames focus on layout, not visual details. They show alignments and positions of parts.



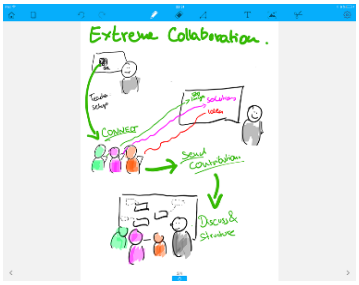


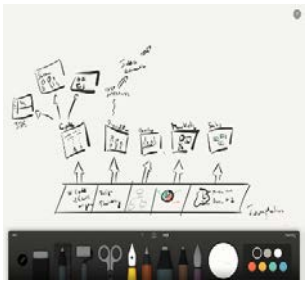
Clickable-screens are wireframes or mockups with simulated functionality („living mockups“). They have basic *simulated* functions. There are “Digital Click Dummies” with simple click behavior and Wizard of Oz simulations (another person „fakes“ the response).

Diagrams are conceptual sketches of relations and parts. Examples are process maps (simulating a sequence), room layouts, processes and structures. They can integrate other prototypes for different states or stages in the diagram.

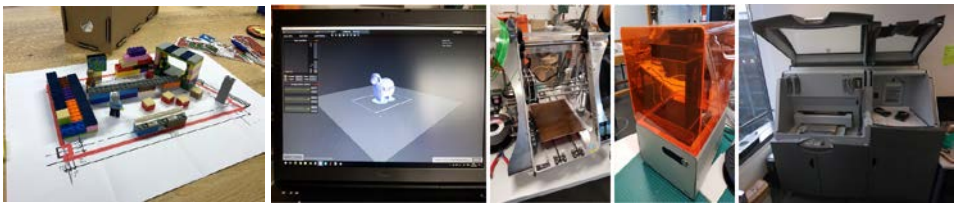
Storyboards are used to sketch user experience. They can be based on comics, photo stories, or videos. They are used to tell stories, shows customer journeys, and illustrates sequences.





Roleplays are often used for service design. They help to experience a use case or service. They allow user participation in the design process (co-creation). The plays take place in small groups that perform, run dialogues, or use Lego miniatures. Designers can observe reactions and get user feedbacl.

A 2D or 3D **physical model** demonstrates the „look and feel“. There are rough 3D models based on cardboard, foam, cloth, or office supplies. One can also find Lego models or 3D prints based on CAD models.



A **Minimum Viable Product** is a running system with basic features, for example, software that has functionality but that is not fully layout. Single exemplars of end products (e.g. pre-production cars, furniture…) are at the high-end scale.

7 Simple Project Organization

Whenever there is more than one action needed to achieve a goal, we can speak of a project (Allen, 2015). Most of us run multiple projects at the same time. Each new idea that we work on is essentially a new project that requires action (Belsky, 2010). And each idea very often sparks new ideas, so we end up with more and more projects.

Working on multiple projects at the same time makes it easy to get lost. Our mind is occupied with too many ideas, too many decisions and too many things to remember.

We are putting more things on our agenda than we can handle (Allen, 2015). There are many things we do at the same time or situations we need to resolve. Each of these challenges is battling for our attention and resources.

To get all these parallel tasks managed it is important to get an overview and get back control and focus. We should shield ourselves from unnecessary tensions that take away scarce time resources.

Many things in our lives are hidden projects but not managed as such: current activities, higher-horizon interests and commitments, current problems, issues, and opportunities (Allen, 2015).

Our mind treats the big range of tasks and materials with the same attention unless we identify what really matters. Hence, we invest the same amount of attention, focus and willpower on things that really need action and on things that we only need to store somewhere for reference or later use.

We are often in fear to have something forgotten, to not find it again. A lot of stress is caused by our uncertainty. What is really important? What is the meaning of an incoming e-mail? Do I have to take actions? The more things we are uncertain about, the less secure we feel. If there are too many things in our mind we might get stuck because we can no longer focus on the things that really matter at the moment. We start wondering if we missed something more important. So instead of JUST DOING IT, we think and think and think. All these things are occupying your mind but you need a free mind to act (Allcott, 2014).

As long as we have not decided on the importance of something, we have no control about it. We may overreact or underreact. As a result unimportant things get more attention as they deserve while the important things are not taken care of (Allen, 2015).

Therefore, free your mind by capturing and collecting everything that you cannot act on immediately. Sort all these things into the right projects and organize them according to their meaning. Distinguish between things that require actions and that can be stored. Review your Action List frequently and act on the items.

Capture and Collect: To free your mind, write down everything that bothers you at the moment: what challenges do you have, which projects, problems, opportunities? To keep your mind clear, make a habit of capturing all your thoughts and ideas in meetings, while traveling, reading or discussing things. If you document everything with simple notes you make sure that you don't have to remember them.

Treat your captured information in the same way as requests coming from outside, such as e-mails, phone calls, memos or posts.

To manage all these bits of information, they have to be organized.

Organize: Handle each item (stuff on your desk, e-mails, notes, etc.) and decide whether you need to act on it.

If no action is required, then either

- Put the item into the trash can (physical or digital) if you will never need it
- Keep it as reference if you may need it later on (such as meeting minutes, brochures)
- Put it to an idea park if you don't want to lose it and see it as potential future inspiration. Here you store things that you maybe do someday but that are not important at the moment.

If an action required, then either

- Do it right now if it takes 2-3 minutes. Thus, you don't have to think about it anymore.
- If feasible, delegate the action.
- If the action is not project related: put it on a general ACTION LIST (the master list), for later execution.
- If the action is project related, then put the project Action List.

These rules ensure that the number of things that you still need to act on are reduced. Moreover, things are organized into different project buckets (such as folders or file folders). Thus, you can access them faster, and each ACTION LIST becomes manageable. By splitting things into different projects, you can decide which project is really important to you.

David Allan (2015) suggests to organize seven primary types for a project:

- Project Lists: This list keeps information about the project. It is an index of open loops that do not require immediate actions.
- Project Support Material: Here you store resources to support your actions, such as contact information or data sheets. These materials should not be used for reminding you! Rather they should be fast accessible whenever needed when you are actually doing something (the actions trigger the use of material, not the other way around).
- Calendar actions and information: Keep track of deadlines and meetings.
- Next Action lists: This is where you store the next steps that are required to progress the project. Some of these steps might require a sequence, other steps may depend on where you are (at home/in office). You can organize them in an ACTION LIST.
- A Waiting For list: To get more things done, you should delegate work if others can help you. To make sure that you don't forget (and don't occupy your mind with remembering), you should remember what you are waiting for and check every frequently.
- Reference material: Information you want to keep and may need for reference sometimes (e.g. brochures, meeting notes).
- A Someday / Maybe list: Use this list to park ideas you do not want to act on right now. You can consider this as a "Not to do list" rather than a "Todo list" (Roos, 2016)

Review: One reason why organizing your project resources this way is that you don't have to have them in your mind all the time. However, to make this work you need to frequently review and updated your lists. You should review your general list on a daily base. The list should be short enough to manage this. Updating the list should be done at least once a week. Hence, take time each

week to organize all the incoming stuff that you haven't handled on a daily base. Also review your system: does the categorization into different projects still makes sense? Do some projects belong together? Is there a need to split a project into sub projects? Frequent reviews ensure that you feel more relaxed, calm and in control (Allcott, 2014).

Do: If you organize your stuff in this way, you can decide which project you want to work on next. As you have an ACTION LIST for each project with PHYSICAL NEXT STEPS, you can JUST DO IT. That is you can chose things from the lists and act on them immediately whenever you have time. A good way to get things done is start each day with the most important and maybe most difficult task. Once you have done that task, you have already achieved the most important thing and everything thereafter is less difficult than then first task.

Organizing your projects and incoming stuff this ways, ensures that you are not overwhelmed and get lost in too many activities. Moreover, you separate doing from thinking and thereby free your mind (Allcott, 2014). Organizing becomes easier, when you put things into the right category. You will find things faster, you can move them away from your desk, and you spend less time thinking about: what should I do with this? You can also react better to unexpected events if you have a "mind like water": calm yet flexible to react any pressure (Allen, 2015).

8 ACTION LISTS

You have established a SIMPLE PROJECT ORGANIZATION. A project always requires multiple steps and often those steps require a specific sequence.

Getting to a goal can be overwhelming if you don't have a plan how to get there. Very often we start projects but never finish them. Too many things are going on at the same time and our resources are limited. Time is wasted on projects that never finish, thus, delaying other projects without need.

Divide and conquer your tasks. A large job can be threatening in its complexity. It is too much to JUST DO IT. However, once you started just a single part of the job it becomes more likely to finish the whole project. Progress leads to progress, small steps add up to large steps.

Our brain can only keep a certain number of things in working memory. Long lists are hard to remember. We often have the confuse feeling to miss something. Hence, a lot of thinking is occupied with remembering and making sure that nothing is forgotten. Incomplete tasks or open loops are taking away a lot of our attention (Allen, 2015).

Anything we consider as unfinished remains in our minds. It pops up every now and then, disturbing our current task at hand. Attention is scarce. We are much more efficient in single-tasking than multi-tasking yet we switch between too many projects all the time. One reason for the stress is that our commitments are not managed well enough (Allen, 2015).

Very often we engage in the wrong activities that lead nowhere (Tracy, 2014). One reason is that we are not clear about which activities will move the important projects forward. An activity is executed because it might be good for a project. Sometimes we don't even know which projects are really important for us.

It would be much better to focus on one project at a time. This will cost less energy and willpower, and you have more resources to focus on the important things. Running multiple activities soon leads to conflicting goals. You start worrying. Switching between tasks, getting organized and worrying cost

you a lot of time and energy. Even less gets done. Action is replaced with rumination (Baumeister, & Tierney, 2011).

Having one project finished is better than having five projects half-finished. You need some guidance to decide which actions you should execute. However complex plans are hard to handle.

Therefore, write down everything that can be done to reach your goal. Decide which things are really important and should get a priority. Bring the identified steps into a sequence of steps that depend on each other. Make sure you can easily identify what needs to be done next. Each item on the action list should be a NEXT PHYSICAL STEP that clearly states what needs to be done.

To outline the path, it is reasonable to begin at the end. That is you should know what your goals are. Where does the project lead you? Where are you now? How to get there? Write down specific action steps. Keep the action steps in plain view or have easy access to them (e.g. on a whiteboard or journal you always carry with you).

Define a sequence. Know what the next step would be to progress this project. Sequential tasking is better than multitasking. Don't try to do multiple actions at the same time, even if they are from the same project.

Active projects. Ensure that you progress the most important projects. Choose 3-5 projects that matter the most. All other projects are on-hold or put onto a "Not-to-do" list. (Roos, 2016).

Deadlines. Define deadlines on important tasks. Make the most important yet unpleasant task your first thing todo. Eat that frog! Deadlines are a cure to procrastination. Even if you don't meet the deadline. (Tracy, 2013)
Different action lists. Action lists can be used to organize your projects. They remind you of all the required steps and they tell you which step is the NEXT PHYSICAL ACTION. In addition, you can have a master action list and a daily to-do-list (Allcott, 2014). The master action list holds things you need to do but that don't fit into any project. Don't setup projects for activities that consist of only one task. Many people also have a daily to-do-list with things that need to be done on the same day. If you use such a list, make sure that it is really short, otherwise you become frustrated. Often it is better to only have project lists and one master list that is reviewed on a daily base.

9 NEXT PHYSICAL ACTION

You have a lot of projects you are working on. You decided to JUST DO IT and now your dream projects are running. Ideally, you have a SIMPLE PROJECT ORGANIZATION to manage all the different projects in your life. With all the different things you could do next, what actually should you do next?

Thinking about what action should be done next may cost you a lot of time and effort. Just the time you could have used to actually execute the action. With all the options you are often overwhelmed and you do not know what the next action should be. And so you find a good excuse to procrastinate.

When you don't know what the next action should be you will get stuck. Very often there is a lack of clarity how to proceed with a project. It is also hard to find out which project could be moved forward most easily at a specific moment.

What stops you doing something? Very often it is thinking. Thinking about what does need your attention. Thinking about what to do next. But thinking...is not doing. One needs to focus on the next steps to achieve a goal.

“A task left undone remains undone in two places – at the actual location of the task and inside your head. Incomplete tasks in your head consume the energy of your attention as they gnaw at your conscience.” (Brahma Gumaris, cited in Allen 2015)

We have a lot of things in our heads but not sorted out what to do about it. You need a free mind to pay attention to the next important task at hand. Without clarity about what the next action is you cannot have a clear mind as you cannot envision yourself do it (because you don’t know what *it* is!).

Therefore, write down the next physical action for all of your projects. A physical action is an action that can be applied right away, and you need not further reflection how to execute it.

In order to get things done you need to define what “done” means (outcome) and what “doing” looks like (action) (Allen, 2015). Manage your next physical actions in Simple Project Organization and get all the nagging unclear tasks out of your head. Once you write a specific action on a list, it is out of your head and you can refer to that list whenever needed.

If you have to-do lists, ask about every to-do whether it is really actionable.

Write down the physical action in a way that you can directly work on it. Write it as an imperative verb. Organize the next physical actions according to projects and plans. Which actions can be executed often depends on where you are – in the office, at home, in the supermarket, in a meeting, at the computer, in the train….So it makes sense to organize all your next physical actions according to locations.

ACKNOWLEDGEMENTS

Special thanks to my shepherd Emiliano Tramontana who has supported me with valuable comments and suggestions.

REFERENCES

Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., Angel, S. (1977). A pattern language: towns, buildings, construction. New York: Oxford University Press.
Allcott, G. (2014). Productivity. A practical guide. London: icon Books.
Allen, D. (2015). Getting things done. New York: Penguin.
Baumeister, R.F. & Tierney, J. (2011). Willpower. London: Penguin.
Belsky, S. (2010). Making ideas happen. London: Penguin.
Csikszentmihalyi, M. (1996). Creativity: Flow and the psychology of discovery and invention. New York: HarperCollinsPublishers.
De Bono, E. (1990). Lateral Thinking. London: Penguin Books.
De Bono, E. (2009). Think!: Before it's too late. London: Vermilion.
Foster, J. (2007). How to get ideas. San Francisco: Berrett-Koehler Publishers, Inc.
Iba, T., Ichikawa, C. , Sakamoto, M., Yamazaki, T. (2011). Pedagogical Patterns for Creative Learning. PLoP 2011 - 18th Pattern Languages of Programs conference. Portland, Oregon.
Iba, T., Matsumoto, A. & Harasawa, K. (2012). A Pattern Language for Creative Presentations. 18th European Pattern Languages of Programs conference. Irsee, Bavaria.
Iba, T., and Isaku, T. (2013). Collaboration patterns: a pattern language for creative collaborations.

18th European Converence on Pattern Languages of Programs.
Kohls, C. (2012). Patterns for creative thinking. PLoP '12 Proceedings of the 19th Conference on Pattern Languages of Programs. ACM Digital Library.
Kohls, C. (2014). Dream teams at the right place. EuroPLoP '14 Proceedings of the 19th European Conference on Pattern Languages of Programs. ACM Digital Library.
Kohls, C. (2015). The Magic Five of Innovation. PLoP 2015 – 22nd Pattern Languages of Programs conference. Pittsburgh, PA.
Kumar, V. (2012). 101 design methods: A structured approach for driving innovation in your organization. Hoboken, N.J: Wiley.
Manns, M.L., & Rising, L. (2015). More Fearless Change: Strategies for Making Your Ideas Happen. Upper Saddle River, NJ : Addison-Wesley
Michalko, M. (2006). Thinkertoys: A handbook of creative-thinking techniques. Berkeley, Calif: Ten Speed
Roos, D. (2016). Don’t read this book. Time Management for Creative People. Amsterdam: BIS Publishers.
Tracy, B. (2013). Eat that frog. London: Hodder & Stoughton.
Tracy, B. (2014). No excuses. Boston, MA: Da Capo.