

Scenarios

**How to Create them
and
Why you Should**

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INTRODUCTION, THANKS AND AN APOLOGY

I have been doing scenarios for about 20 years, starting with people from large corporations, then more with ordinary people and lately with teachers and students at the high school and university level. I have found that scenarios provide orientation in an increasingly uncertain world. They are one of the few tools I know of that successfully attempt the impossible, namely to bridge the gap between the choices we make today and the consequences we face tomorrow. They actually help you make better decisions today for an uncertain future tomorrow.

Scenarios are a tool for ordinary people to help them think the unthinkable, question the obvious and challenge the official future. They are a tool of freedom and empowerment in all walks of life, private, social, corporate and societal.

I learned that they particularly resonate with young people. The young have always created the future they need, and they will continue to do so. As I am getting older, I want to offer what I learned about scenarios as a powerful way to shape and transform the future to young people everywhere - and those who remain young at heart¹. Maybe it makes their never ending task, namely to create a future in which it is possible for all people to live a life worth living, a little bit easier.

As Theodore Zeldin writes at the end of his book 'An Intimate History of Humanity': "History, with its endless procession of passers-by, most of whose encounters have been missed opportunities, has so far been largely a chronicle of ability gone to waste. But

¹ Martin, Eric Lee / Ross, Mark Stephen, „Young At Heart“, Sony /ATV Music Publishing LLC, June's Tunes Ltd. Partnership

the next time two people meet, the results could be different. That is the origin of the anxiety, but also of hope, and hope is the origin of humanity.”²

This book is the outcome of one of those meetings. Thirty young students met in the fall of 2015 in de Küper for a long weekend to learn about scenarios. I tend to talk and teach without notes, without powerpoint slides, and without visuals. Their feedback was that a few visuals and a few structured notes “would have helped”. Well, here are both - and I hope they help.

A very special thanks goes to two of the participants of de Küper, without whom the weekend, and thus this book, never would have happened: Thank you Anne van Bruggen, thank you Jorinde Vernooij.

Finally, the apology. I am not a native English speaker and even though I love the language, it’s rhythm and punch, I have never really mastered it’s grammar, spelling and punctuation. Try to bear with me, even if reading the text is difficult at times.

² Theodore Zeldin, 1994, *An Intimate History of Humanity*, pg 472, Sinclair-Stevenson, ISBN 978-0060926915

WHY BOTHER?

Any choice you make, any decision you take and any plan you set in motion will make sense or not, will turn out to have been wise or foolish and will be profitable or not, inevitably and exclusively, in the future. This being so you can, firstly, cross your fingers and hope for the best.

Second, you can rely on your intuition. Rely, in other words, that your gut feeling won't let you down. Many highly acclaimed leaders' claim to fame is that they have a superior intuition and without being able to explain fully why and how they decide what they decide, in the end, their decisions turn out to be right.

A third possibility is to ride a favorable trend. If things are going your way, if the rising tide, as we know it does, is already lifting all boats, it's probably difficult to make a wrong decision. But remember, in the end, the tide turns and a trend, as some of us have had the opportunity to learn, is a trend only until it bends.

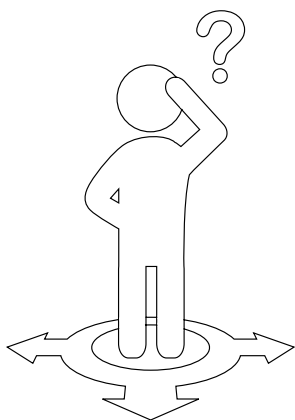
A fourth alternative is currently much en vogue, namely to trust in big data. The hope is that some smart algorithm is going to save your day. But remember Nate Silver's admonition in his recent book "The Signal and the Noise"³, who writes that the first, and sometimes only, thing big data does is to increase the level of the noise.

The fifth alternative, much liked by those in charge when things go wrong, is to delegate, and if all else fails, to deny responsibility.

³ Nate Silver (2015), *The Signal and the Noise*, Penguin Books, New York, ISBN 978-0143125082

Or, you could use scenarios to make better decisions today for an inevitably uncertain future. This short book is about the process of creating and applying scenarios in your world. About the *how*, in other words.

But first, let me write a few words about *why* scenarios are such a nifty little tool to have in your toolbox.



THE BIG PICTURE

We matter

Until a few hundred years ago anything we humans undertook did not matter on a geophysical, evolutionary scale. It mattered a lot to us humans, but the planet, nature and life itself just shrugged - if they noticed at all.

This has changed. Collectively, we now matter. We change the climate, we leave behind waste that needs to be kept separate from life for tens of thousands of years, we intervene in evolution, to name but a few areas where learning by trial and error won't work. Because the potential errors could wipe us out.

Still, we act as if there would always be enough survivors to observe our trials and draw conclusions from them so that next time we, at least, won't make the same error twice.

The power we have to change life, nature, the planet and everything in between will be with us from now on - you can't put the genie back in the bottle again. Pandora's box doesn't have a lid anymore.

So the very least we should do, in my mind, is to approach the future with a bit more humility, prudence, and modesty, rather than charge ahead without any thought, consideration or a plan B. Scenarios don't just give you that plan B, but also plan C and plan D.

The future is wide open

Until a few generations ago, what was to become of us was tightly prescribed by material constraints. If your father was a carpenter, it made an awful lot of sense to become one yourself. The task was to adapt as best as you could to very narrow and well-trodden paths into the future - and be content in doing so.

Today, already two billion, and growing, people in the world can be anything they want to be. A privilege of kings and queens in the past has become ubiquitous.

While we first thought that this was an unfettered reason for maximum joy and never ending happiness, we are slowly learning that this is also a curse. The freedom to choose becomes the obligation to choose. And coming out of a world of barely hanging in there, we are not so good at making choices. It is not in our bones.

Scenarios are a tool to put some order into the choosing you will have to do throughout your life. Rather than being paralyzed by all the options, all the opportunities, all the snake oil sellers peddling their potions, you can use scenarios to regain some control over your life, to live the story of *your* life, rather than the story someone else wants you to live.

The signal and the noise

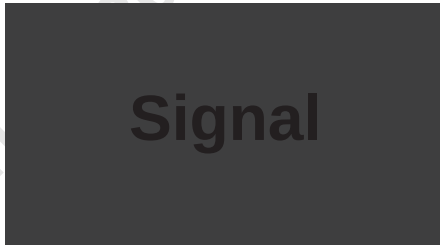
Finally, a slightly more technical reason for becoming proficient with scenarios.

All data and information consist of signal components and noise components. And it's the signals that carry the useful bits we are after: news, facts,

truth, reality, accuracy, precision and certainty. Unfortunately, they are buried, sometimes very deeply, in noise. Noise is distraction, commotion, disturbance and uncertainty. Note that I am using ‘noise’ here not as the intrinsic component of a signal⁴, but the more colloquial background disturbances that smear the signal, all the way to totally hiding it.

So, what can we do when our signal gets lost in the noise? We can and must give it context. As Nate Silver writes “Information becomes knowledge only when it’s placed in context.” (Silver, 2015, pg 451) What scenarios are really good at is placing your signal, your data, into not one, but several divergent contexts.

Let’s assume your signal is the word ‘signal’, written in black. If your noise is a very dark gray, the information content of your signal is very hard to pick out. Visually this looks like this:



Not easy to see, even if your eyes are as sharp as a hawk’s eye. However, if you place the same signal into a different context, say a lighter gray, things become much easier.

4 ... that the signal processing folks talk about - for a great introduction to this see Tom O’Harver, *A Pragmatic Introduction to Signal Processing*, 2015, <http://terpconnect.umd.edu/~toh/spectrum/TOC.html>, accessed Jan 2016

Signal

In the real world, the signal you are after is of course not the word ‘signal’, but a wild mixture of facts, ideas, rumors, disinformation, weak indications, of exactly what - you are not quite sure; all fuzzy, fraying at the edges, fading in and out and open to all kinds of measurement error and interpretation dilemmas. Just try to recall the ‘signals’ you had to deal with the last time you fell in love.

In such situations it is good to have a few divergent contexts at hand against which you can place your noisy signals and see if they become clearer.

Why do I keep talking about *divergent* rather than just plain old *different* contexts? Because I want to emphasize the fact that your contexts should really be going in vastly different directions and not just be slightly shifted instances of each other. With divergent scenario contexts at your disposal you see quite different things in the presence, and consequently, pay attention to. Or, as my mentor Betty Sue Flowers once put it more eloquently: “Your presence is shaped by the stories you tell about the future.”

It is difficult to visualize this in a black and white book, but if, for example, your signal were a small mammal, then place it in a jungle, in a desert, on an ice float or the like rather than in a handful of slightly differently arranged ornamental English gardens.

Scenarios empower you and your team to actually *create* these contexts. In this little book you will learn step by step how to do this, and once they exist, how to apply them to your decision-making. As a result, the decisions that you take in the present will turn out to be better ones for the uncertainties of the future that will always confront you.

Where scenarios fit in

Like any tool, scenarios can be used improperly. The first check whether scenarios are appropriate or not is to ask yourself what kind of question do you want to answer compared to what kind of future. To my mind, the definitive advice was given in 1997 by Courtney, Kirkland and Viguerie in a Harvard Business Review article⁵. I will briefly summarize their advice.

Courtney et al. classify possible futures into four categories, according to their type of uncertainty:

- Clear enough future
- Alternate futures
- A range of futures
- True ambiguity

and illustrate the four with nifty sketches (my assumption is that their drawings are copyrighted, so you need to look at the original at the Harvard Business Review).

⁵ Courtney, Kirkland and Viguerie, 1997, *Strategy Under Uncertainty*, Harvard Business Review, Nov-Dec 1997 Issue, available here: <https://hbr.org/1997/11/strategy-under-uncertainty>, accessed Jan 2015

The first two, the top ones, are not, in their - and my - view candidates for scenarios. The future is too clear and too certain. The effort involved does not normally justify the added clarity, the 'reduction in noise', I talked about earlier.

The last two, however, are clear candidates for scenarios⁶, since noisy uncertainty dominates the future. It is very hard to see the forest for the trees, to separate the wheat from the chafe. I would add that the third type of future is suited for working adaptively with scenarios while the fourth and last one is suited for working transformatively with scenarios. Adapting, shaping and transforming as they apply to scenarios is discussed in detail in phase 7, on page 69.

Another way to conclude whether scenarios are the right tool for your question and future is to look at the following sketch⁷. This one I did not steal lock, stock, and barrel, but in rudimentary form you can find it in van der Heijden⁸, 1997, pg. 92.

Any choice you make, any decision you take and any plan you set in motion will be impacted by numerous factors or drivers. Very close into the future, many, if not most, will be certain and few, if any, will be uncertain (or noisy). Your certain-to-uncertain ratio is high. As you move further and further into the future, the ratio declines. The uncertainty grows, the certainty declines, and, in the end, your signal is swamped by noise.

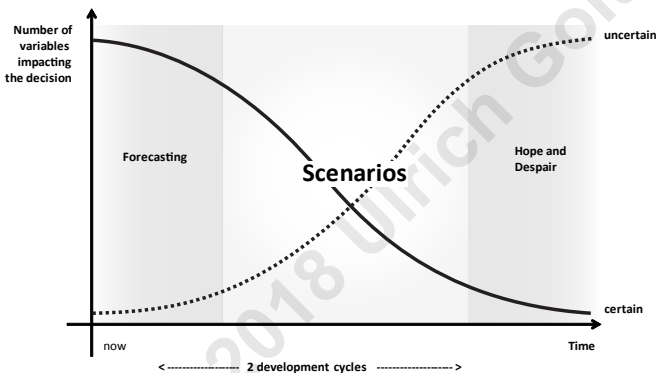
6 There are other tools in addition to scenarios that Courtney et al. mention, go read the article.

7 All sketches, graphs and matrices can be downloaded in a larger size from www.blue-way.net/ScenariosTheGraphs.pdf

8 van der Heijden, Kees, 1997, *Scenarios: The Art of Strategic Conversation*, John Wiley & Sons, Chichester, ISBN 0471966398

In the beginning, there are many heuristics that allow you to deliver a decent forecast, including the old trusted standby that tomorrow will be much like today - and which is, surprisingly often, actually true.

At the far end, when uncertainty trumps certainty, there is only hope and despair. But don't dismiss this space too quickly. Because it is the space of imagination, of mystery and of new, often crazy



ideas - inspiration and creativity, in other words. On a more somber note, it is, as the great philosopher Karl Popper wrote in his "Logic of Scientific Discovery"⁹ the source of the irrational element and creative intuition¹⁰. Dare to venture into it every once in a while, and come back to tell us what you found.

It is the middle part between forecasting on one hand and hope and despair on the other, where scenarios shine. The part where certainty fades into hazy uncertainty, where what we know gives way to

⁹ Popper, Karl, 1959, *The Logic of Scientific Discovery*, Routledge, London, ISBN 0-415-27844-9

¹⁰ Popper, 1959, pg 8

the unknown, to fear and to apprehension. Where the noise at times is deafening. The normal response is to shy away, to retrace our steps to seemingly safe spaces, to familiar sights and smells and sounds.

We shouldn't. Instead, we should embrace the insecurity because life is deviation. However, just like a mountain climber is ill-advised to venture onto higher ground without the proper gear and attitude, we should embark on our expedition into the wild noise properly prepared and equipped. With divergent scenarios serving as our maps, we can deal with the uncertainty and the noise that are inevitably there. Through scenarios, we can turn them into manageable challenges and, on a good day, actually draw strength and energy from them. Scenarios turn future uncertainties into allies, rather than leave them as adversaries lurking in the dark, ready to trip you up at any moment.

“Alle haben irgendwie Angst vor der Zukunft, Szenarien sind ein Weg die Angst vor dem, was vor uns liegt, zu benennen und was dagegen zu tun.”

[Everybody is in some way afraid of the future, scenarios are one way to give a name to the fear and do something about it]

*A.O., High School Student
Realschule Baesweiler*

Two development cycles

The time axis in the figure on page 17 is dynamic. It depends on the domain of your question. And to consider two development cycles is a purely pragmatic advice to husband your resources. If you are

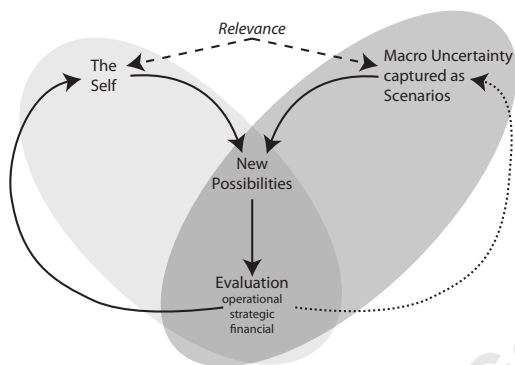
contemplating big changes - and scenarios deal with big risks and big opportunities - in the here and now, you need a lot of power. Because all stakes have been claimed, all deals been made, and all resources allocated. It is clear who the winners and who the losers are. But if you go out one development cycle, things are less cast in stone. Jostling for positions is still going on, and if you move cleverly, you can achieve big results with modest efforts.

Going out two such cycles, the cards are stacked even more in your favor. You can lay the groundwork starting now for the new world which you want to create or in which you want to succeed while most of the others are still celebrating the gains they made today. However, going even further out becomes more difficult again because you need to expend quite a bit of effort to make people focus that far into the future.

The actual length of the '2 development cycles' depends of course on the domain you are considering. For a software company 2 development cycles is measured in months and maybe years. City planners ought to think in terms of decades and if you contemplate social changes, learn to think and act in generations.

The Self and the World

Having learned where scenarios fit in and when you should use them, they also give you an outside look at yourself. Even though this sounds a bit like pulling yourself up by your own bootstraps, it is much more mundane - yet still very powerful. Have a look at the following sketch.



There are two cycles. On the left ‘the self’, ‘new possibilities’ and ‘evaluation’ form one cycle. On the right, ‘macro uncertainties captured as scenarios’, ‘new possibilities’ and ‘evaluation’ form the other one.

‘The self’ depends on the role you are taking on. It could be really your personal self; it could be your company - or some part of it, your group, your generation, your culture. Speaking about business, van der Heijden calls that the ‘business idea’, see chapter three in his book.

The ‘relevance’ in the sketch and the two dashed arrows leading away from it merely mean that the uncertainty and noise you consider in your scenarios need to be related, i.e. relevant, to the role of your chosen self.

The left cycle

Let us look at the left cycle. In order to learn, to change and to grow you think of, create and imagine new possibilities for the self in question. You then evaluate these possibilities according to their oper-

ational, strategic and financial constraints and, if possible, affect the self. If this last sentence sounds a bit too abstract, consider this example:

Assume the self is you. You wish (= new possibility) to become proficient in a new sport, say, ice climbing. You evaluate this possibility *financially* (can you afford the gear, the travel?, etc.), *operationally* (are you fit? do you have enough vacation? do you suffer from cold extremities?, etc.) and *strategically* (is your mate also an outdoor fan or rather a classical concert goer?, etc.) You find that all works out in your favor, so you do it. After becoming proficient in ice climbing you have, even if ever so slightly, changed - your new self is a little different from your old self.

So you can start again on this cycle: You wish (= new possibility), now that you are a good ice climber, to become an ice climbing guide ...

If this example is too personal, consider this: 'The self' is a group of loose friends studying the same topic, say industrial ecology. You wish to learn more about a subject not currently offered as part of the official curriculum. You contact an expert in the field and convince her to hold a 3-day workshop for your group. You evaluate this possibility *financially* (can you afford her honorarium? can you negotiate her fee down? etc.), *operationally* (can you all agree on a time? do you have a location? with food? etc.) and *strategically* (does this workshop help you in your studies, in your working life? etc.) You find that all works out in your favor, so you do it. After becoming proficient in the subject you have, even if ever so slightly, changed - your new self is a little different from your old self.

I leave it to you as an exercise to come up with corporate and societal examples.

The right cycle

This cycle overlaps the new possibilities and evaluation, but it replaces ‘the self’ with ‘macro uncertainties captured as scenarios’. This is a clumsy code for the ‘noisy, uncertain world outside’. And as we recall from a few pages back, the part of the future where certainty fades into hazy uncertainty, where what we know gives way to the unknown, to fear and to apprehension. Where the noise at times is deafening.

If we overcome our apprehension and turn the uncertainty into scenarios, we generate contexts that we can explore - well ahead of time.

What have we gained by doing this?

- 1) You have turned the key question about the future from “will it happen?”, to “what can I do if it happens?” The first one condemns you to be a victim. You have abdicated the responsibility or control if something will happen or not to someone or something outside yourself. The second question, ‘what can I do if it does happen’, while not giving you complete and exclusive control, gets you to thinking about and preparing a variety of options you can execute if something happens or not in the future. And if that something ranges over a variety of divergent possibilities, your preparations can become more and more robust.

- 2) You are able to put the contexts you have created underneath the noisy, distorted and weak signals that reality usually consists of. By doing so, we are better able to recognize and pick out the signals that matter. They literally stand out. The result is that you are much less surprised as reality unfolds around you.
- 3) You are able to tell a convincing story. Rather than drown in the detail and minutia of life, you are able to see, live and stick to the strong lines of your existence. And if you choose to deviate from them for the sheer thrill of it, you do so consciously.
- 4) Finally, you have laid the ground work for asking an even more significant question about the future: “what do I need to do, in order to make my preferred future happen?” It is the question about transformations: “You see things; and you say, ‘Why?’ But I dream things that never were; and I say, ‘Why not?’”¹¹ More on that in phase 7.

You see, scenarios are a nifty tool, and now we are going to learn to create and use them.

The HOW in a nutshell

Scenarios are inductive work

Since the future is not deterministic, the work must be an inductive process. Inductive, yes, but not without rules or methodology: To move from the particular to the general, to generate at least hypotheses, if not theories, the scenario process moves back and forth between stages of opening, i.e.

¹¹ George B Shaw, *Back to Methuselah*, 1921, In the Beginning: B.C. 4004 (In the Garden of Eden)/Act I, § i