

The Analyst's Canvas

Explorer Guide v1.02

By Nathan Gilliatt

Introduction

The Analyst's Canvas¹ is the product of years of exploring different analytical tools and methods. My claim—which we're here to test—is that the canvas can be useful in any kind of analytical work or process, whether you call it research, analytics, intelligence, or something else. The underlying philosophy is to focus on an organization's mission and objectives more than on which tools and techniques are familiar, while creating a common vocabulary to compare methods from different analytic specialties.

In my view, there's something fundamentally similar in different types of analytical work. Consider how a statistician analyzes survey data; a marketing analyst parses customer data; a data scientist applies machine learning techniques to "big data;" a media analyst summarizes news reports; a geospatial analyst interprets satellite imagery; an intelligence analyst develops hypotheses from field reports. Their processes start with raw information or data, process it with some method or algorithm, and deliver results in reports, displays, or data that feed into another process. Each specialty has its own vocabulary and preferences for tools and techniques, but ultimately they're doing variations on the same thing. The canvas offers a common framework and vocabulary for comparing dissimilar approaches like these without implying a preference for any particular specialty.

The canvas doesn't come with a handbook yet—figuring out the details is one of the goals of this stage of the project, right up there with finding out if the canvas works for people who aren't me. This document will provide a quick guide to the major ideas, as well as some first-draft roadmaps for several usage scenarios. At the end, I have a few questions to consider and a couple of ways to send your feedback.

Ready? Onward.

Background

The earliest version of the framework comes from a 2008 blog post² about social media intelligence platforms. I had reviewed dozens of companies in that emerging market, and I found the software products were built from three major building blocks: content sourcing, analytics, and application features. A little later, I talked with some secretive government types about how they might work with social media data, and the building blocks model held. The difference between what they wanted and what the industry

¹ First Look: The Analyst's Canvas: <http://bit.ly/ACintropost>

² Building Blocks of Social Media Analysis: <http://bit.ly/ACblocks>

was offering businesses was in the work that they needed to support. Using the same sources and methods—and quite different vocabulary—they needed different application features to support different missions.

The rest of the model comes from ten years of talking with people about different kinds of analysis in some very different work environments and realizing how their work has much in common. The most useful questions in focusing those conversations are “what are you trying to accomplish” and “why?” The canvas represents those questions and more, packaged in a fill-in-the-blanks model that I think will be useful from the brainstorming session to the client pitch and budget justification.

The Analyst’s Canvas is the result of trying to explain how I view analysis in the context it serves. The question is, does it communicate clearly for you, and can you use it to create value in your own work?

A guided tour

The canvas consists of seven boxes, which are intended to construct a comprehensive view of an *activity* (which is the label I’ll use to cover anything that delivers its value through an information to insight to action process).

The middle three boxes—Data, Analysis and Presentation—*describe* the activity. Other methodologies that I’m aware of tend to operate across this layer, adding depth and a process for developing the details, for example, of data sources and analytical models. Eventually, I plan to argue that constructs like the Intelligence Cycle operate in this layer, as well.


The upper layers—Objective and Mission document the connection between the activity, the work it supports, and its value to the organization. The lower levels summarize the expected results of the activity and note alternatives. Collectively, the boxes not in the description layer provide the context to validate an activity and document its contribution to the organization / client.

If you haven’t already, download the canvas at <http://socialtarget.com/canvas/>. You’ll find two versions: one with the prompts for what to do in each box and one with nothing but the labels, each available in PDF and PNG formats.

The Analyst's Canvas

analystscanvas.com

Activity	Creator	Date	Version
Mission			
Objective			
Data / Sources	Analysis	Presentation / Delivery	
Questions		Alternatives	

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The captioned version of the canvas includes a brief reminder of what each box should contain. In each case, think of the questions as prompts, not a checklist. You may end up with your own list of questions, which is entirely in keeping with the vision. *Every* box has the potential for a deep-dive, so identifying the right point to switch from the high-level view of the canvas to the more detailed processes of existing methodologies (and back) will be part of the learning curve.

I don't expect the Analyst's Canvas to compete with existing methodologies. The intent is to create a common framework for communicating across disciplines and comparing methods with differing vocabularies.

Right. The tour.

Mission

How does this objective support the organization's mission? I like the advice to ask "why" repeatedly until you get to something unambiguous, such as the organization's reason for existence. The Mission box is about making sure the activity is justified and relevant, by establishing the link from its supported objectives and workflows to the organization's mission.

The visual design of the canvas is based on Strategyzer AG's Business Model Canvas (BMC).³ The BMC offers a structured approach to understanding how an organization creates value, which should be helpful for working through the Mission box. I like the method of going through the BMC exercise twice: once for the overall company/organization, and again for the intelligence/analysis unit (to explore how the unit delivers value). Once you establish how the smaller organization delivers value to the overall organization (or client), you have a baseline Mission for every individual activity.

Objective

What work does this activity support, and how? Who will work with the output, how does it help them in their work, and what is the next step in their process? Objective is immediate; use it to think about what the client or user will do with the activity's output.

The boxes directly below Objective need to support the objective both individually and collectively. Individually, we specify the pieces to construct the activity. Once built, do the pieces of the resulting activity (data, analysis, delivery) work together to support the objective? If an activity isn't working, the canvas suggests a structure for examining why it falls short. (Remember, *activity* in this context is a broad term, which may represent an internal activity, an outside service provider, or a software platform.)

Data

What data/information is required? What sources will provide it? What are the limitations and drawbacks of the chosen sources? Is this the right source or just a familiar or available one? Sources create an excuse to pigeonhole analysis, and asking a broader question is an attempt to move beyond narrow thinking.

Analysis

What analytical method(s) will be applied to the data? What tools are required? What are the limitations and drawbacks to the chosen method(s)? Here's the other big set of blinders for specialists. Is there a method from another specialty that may be a better match to the current need? What assumptions about methods are designed into the organization doing the analysis?

Whole fields of study fit into this box: statistics, machine learning, image analysis, and social network analysis, but also structured analytic techniques, simulations, game theory... The canvas is meant to be flexible enough to include any method you can think of, specifically including those not usually associated with any particular type of analyst.

³ <https://strategyzer.com/canvas>

Presentation/Application

How will the analysis be presented? What user features are needed to support the objective(s) and the role of the user? How does the presentation/application support the next step in the process?

A lot of differentiation happens in the Presentation box. In a services role, presentation might involve a note, a paper, a stack of charts, or a briefing. In software development, think about user interface and features implemented in the application (such as workflow or process integration). The real question here is: how is insight developed from the analysis of information delivered to support the Objective and, ultimately, the Mission?

Questions

What questions will this activity answer?

This should be straightforward. Many of the software vendors I follow answer this question to communicate their value to potential customers. The list of questions here should mirror the alignment with Mission, but where Mission was about process and contribution, Questions is a simple summary.

Alternatives

What other approaches could be considered to solve the same needs as this activity? Does this activity duplicate other work? How else could you support this Objective, answer these Questions? Is the activity (and expense) necessary?

The Alternatives box presents an opportunity to consider approaches that you may associate with competing providers of analysis. How would an analyst with a different set of tools, or who usually serves a different kind of client, approach the same activity?

Using the canvas

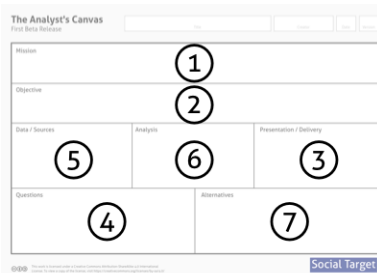
The big question is, what's the purpose of using the canvas? I have a few ideas, and maybe you'll discover more. I think you could use it to:

- **Generate ideas:** Fill in what you know and brainstorm the rest.
- **Identify requirements:** Define what you want and why, consider alternatives.
- **Communicate requirements:** Use the common framework to tell internal and external providers what you need from them.
- **Communicate value:** Show internal and external clients how you create value for them.
- **Compare alternatives:** Whether you're buying or selling, compare completed canvases to highlight the differences among competing alternatives.

I assume that there's an optimal order for going through the boxes in different scenarios, but that's something we'll learn from testing. Here are some first attempts.

Client view: planning requirements

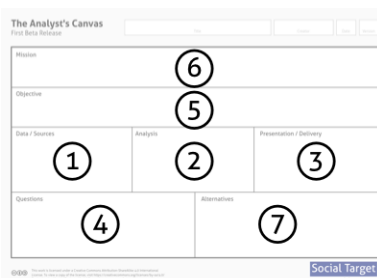
This flow starts with a need and leads to requirements. The completed canvas should clearly communicate what the activity should accomplish, what the client will do with it, and the strategic context that is needed to ensure the relevance of the activity. In other words, answer "what are you trying to accomplish" and "why?"



Given: Mission, Objective.
 Explore: Presentation, Questions, Data, Analysis.
 Reality check: Alternatives

Communicating the value of a capability

This flow develops the value of a product or service to communicate to a client. Make the case for the value of your activity to the client by completing the links through Objective to Mission.



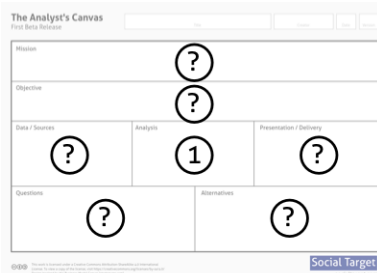
Given: Data, Analysis, Presentation (depending on what you offer).
 Explore: Questions, Objectives, Mission.
 Reality check: Alternatives

Exploring new opportunities

This flow structures an exploration of new markets or an existing capability (such as a company with existing data assets or analytical software). Start with the completed canvas for your existing capability (perhaps an existing activity for a current client). Mark the box(es) containing your core capabilities. Every other

box represents an opportunity to consider what you might do differently, both in individual boxes and in groups of boxes.

The example below assumes a software company with an analytical engine—image recognition, for example. The Analysis box represents their core capability. In exploring their options, they could consider applying the existing analytics to a new Data source, or build a new Application to support a different Objective. Different objectives could serve existing customers in new ways or address whole new markets. What other questions can they answer?



Given: Existing assets (Data, Analysis, Presentation).

Explore: Everything else. New combinations of Data, Analysis and Presentation.

Questions (new and existing customers), Objectives (support different work),

Mission (serve different customers).

Reality check: Alternatives (as you develop potential scenarios).

Comparing scenarios

Given two or more completed scenarios, comparing across scenarios should be constructive. Think of doing a kind of subtraction in each box to identify the similarities and differences between the two scenarios.

- Compare vendor/department capabilities
- Compare/contrast needs of different functions and roles
- Compare new requirements to existing capabilities

In general, I think the approach is to fill in the known boxes—objective or questions if you're defining requirements to fill a need, for example—and explore the range of possibilities in the remaining boxes. Use the Mission box as a reality check on the stated Objective and to communicate the strategic context of the activity to everyone working in it.

Eventually, I think the canvas can become the template for an analytical playbook, with combinations of sources, methods and delivery and the objectives they support.

Reactions, please

Your reactions to the model are an important part of the development process. Whether you have a lot to say or a little, please do share your observations. You can use the form at <http://socialtarget.com/canvas/feedback/> or send email to gilliatt@socialtarget.com.

Any comments are great. If you want questions to start with, try these:

1. Does the canvas seem useful to you? Can you use it to communicate, to stimulate ideas, or to evaluate options? Would you use it in your work?
2. For any given scenario, which box seems like the most likely starting point? What order works for you?
3. What isn't clear in the model? Obviously, it needs documentation and real examples. Is there a part of it that's particularly confusing?
4. What works for you? Does anything stand out as particularly useful, and especially anything different from existing approaches?
5. What doesn't work for you? Is it confusing or just not adding value to the way things are done now?
6. What methodologies do you use now for selecting sources and analytical methods? Do you see any conflict between the canvas and those methods?

In addition, I'm looking for case studies to develop the claim that the canvas works in diverse settings. I'm taking it into the different camps where I have contacts, and we'll see how it holds up. Your feedback is an important part of that process. If it really works for you, let's talk about developing your example further.

As a reminder, the Creative Commons license⁴ attached to the Analyst's Canvas means that if you like it, you may continue using it for any purpose without charge. All I ask is that you attribute it to me when you use it and watch for updated versions.

Thanks again for taking a look at this project during the early stages. I look forward to hearing what you think of it.



⁴ <https://creativecommons.org/licenses/by-sa/4.0/>