

## DESIGNING A GOOD STORY FOR BETTER POLICIES: ENTREPRENEURSHIP AT THE CROSSROADS OF AI- POWERED VISUAL STORYTELLING AND SENSEMAKING

Erick Behar-Villegas  
*Berlin International University  
of Applied Sciences  
Tecnológico de Monterrey  
Germany / Mexico  
ORCID 0000-0001-8714-4602*

Zhen Goh  
*The Emerginarium  
Singapore  
ORCID 0000-0002-7825-7688*

Gregory S. Horowitz  
*University of California  
San Diego -  
Office of Innovation and Commercialization  
United States*

**Abstract:** *Sensemaking and AI image generators can contribute as visual storytelling tools to a better comprehension of the life-worlds of entrepreneurs in policymaking. There is doubt about whether policymakers productively understand entrepreneurial realities for the sake of implementing decisions that help startups. Using entrepreneurial journeys of 18 startups in six countries, weak-signal triads and image prompts were derived from shared stories in order to visualize entrepreneurial realities. The advantage of visual storytelling materializes in the cognitive ease that narrative schemas yield. Results indicate that AI generated visuals, e.g. storyboards, depict compelling realities regarding story elements such as character and setting clearly, yet they hardly illustrate the dynamics thereof (e.g. conflict resolution), while triads help understand entrepreneurial priorities. The project showcases the potential of tech-driven visualization, suggesting that visual arts can help the public understand untold stories that drive, among others, entrepreneurial solutions, provided that the dynamics be presented clearly.*

**Keywords:** *AI-imagery, storytelling, entrepreneurship, public policy, story design, visual storytelling.*



## INTRODUCTION

"...in an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes (...)  
Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently."  
Herbert Simon (1971, p.40-41)

As generative Artificial Intelligence (AI) tools for static and animated visuals have become increasingly popular and accessible in recent years (Hu, Cheng, Gan, Liu Gao and Neubig, 2020; Nield, 2024), harnessing their benefits can include understanding the life worlds of actors that generate public value in society, for example, entrepreneurs.

This finds relevance, i.a. in the design of better policies, which evolve in a context of limited resources, scarce attention, and bounded rationality (Simon, 1971, 1990). The challenge is, however, how this process of understanding can come about when using available toolsets and recognizing that entrepreneurial journeys are not necessarily understood by policymakers (Bosma & Levie, 2020; Haden, 2014; Instituto Superior para el Desarrollo del Internet - ISDI, 2015).

Storytelling and entrepreneurship go back a long way; one may even posit that there is no entrepreneurship without a story. As Fisher (1985, p. 75) writes, referring to the narrative paradigm, humans are storytellers *per se*. For Srivastava, Oberoi and Gupta (2023), who concentrate on compelling storytelling for entrepreneurs to gain competitive advantage, storytelling appears as a crucial component of any entrepreneurial journey, even if every story must be tailored to its specific context and goals. Policy, including decisions that benefit startups, can be enriched using storytelling as a means to ‘re-frame’ situations towards change (Lowndes, 2016, p. 120), also benefitting from clearer inputs that depict the situation of the entrepreneur for policymakers.

Visual storytelling, also known as narrative visualization (Mayr & Windhager, 2018) can contribute to making sense of how entrepreneurs operate and effectuate amid uncertainty, albeit in a way that guarantees a systematized story capture that delivers clear and comparable patterns of information. This implies that story elements, (e.g. characters, setting and conflict) are visualized and help “tell the story”. Thus, visual storytelling helps understand journeys by making it cognitively easier to appraise content. If communicated clearly and consistently, visuals that help disseminate knowledge or ease a decision maker’s understanding, illustrating “lived experiences” (Drew, Duncan & Sawyer., 2010, p. 1677).

In this light, this paper addresses whether and how visual storytelling can incorporate available toolsets to better portray entrepreneurial journeys in a policy setting using two examples. On the one hand, SenseMaker, a human sensemaking tool, was used to collect entrepreneurial stories and interpret signals based on available patterns. The stories stem from entrepreneurs in six countries during the COVID-19 pandemic. On the other hand, the extracted bodies of stories were used to create storyboards using Midjourney, a generative AI-software.

This paper is structured as follows. The first section provides a literature review on visual storytelling, sensemaking and entrepreneurial journeys, followed by a second section that

discusses a theoretical approach on narrative visualization. The third section introduces the methodological approach, which is built on the use of the two tools and an overview of the results and a sample of the visuals, while the fourth section addresses a general discussion on the matter and a set of policy recommendations.

## LITERATURE REVIEW

The recent body of literature linking storytelling and entrepreneurship involves topics such as startup funding and stories (Anglin, Reid & Short, 2023; Manning & Bejarano, 2017; Martens, Jennings & Jennings, 2007), the communication of unique differential values of entrepreneurial ventures (Taeuscher, Bounchken & Pesch, 2021), the role of ‘place’ in entrepreneurial storytelling (Kimmitt, Kibler, Schildt & Oinas, 2023), the role of storytelling in entrepreneurial intention (Liu, Ma & Li, 2019), storytelling as a skill for entrepreneurs (Srivastava et al., 2023), among others.

Visual storytelling has established itself in the scientific literature covering different domains. Botsis, Fairman, Moran and Anagnostou (2020) apply it to enhance knowledge dissemination in medicine, while Drew et al. (2010) explore the use of photovoice and photo-elicitation as visual storytelling techniques in qualitative health research. From a theoretical perspective, Akleman, Franchi, Kaleci, Mandell, Yamauchi and Akleman (2015) depart from narratological analysis and propose a framework that helps develop techniques of visual storytelling. An example of the recent use of visual storytelling and technology is provided by Hu et al. (2020), who explore elements that ‘make a good story’ in the context of artificial intelligence and the coherent description of image streams. Also in the same direction, Zhang, Yin, Geng, Zhou, Sun and Tang (2020) apply different visualization techniques to facilitate the communication of spatial-temporal narratives in ancient poetry, albeit for the sake of improving education techniques.

Beyond the grey literature that involves visual storytelling, business, and entrepreneurship (e.g. Kleine Wieskamp, 2019), there are scant accounts of the link between the two topics and the potential of their interaction in scientific literature. On the one end, Rivo-López, Lampón, Villanueva-Villar and Míguez-Alvarez (2022) explore the impact of introducing visual narrative formats in entrepreneurship training for women. They find positive effects of using visual narrative to develop better entrepreneurial concepts, identify opportunities and even encourage innovation. On the other, Gates-Stuart (2019) discusses, i.a. the link between digital entrepreneurship and its use of visual narratives of storytelling in different research approaches. However, to the best of our knowledge, the use of visual storytelling depicting the lifeworlds of entrepreneurs, let alone economic actors, as a tool for better policy decisions is practically inexistent in the scientific literature. This includes the lack of examples or case studies where policy making could better absorb entrepreneurial input in order to provide better solutions.

One must not forget, however, as Davidson (2017) notes, that the grey literature<sup>1</sup> also offers a vast amount of input with regards to storytelling and academic domains, for example, policymaking. This means that the gap we mention does not cover the vast amount of resources

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<sup>1</sup> Davidson (2017, p.2 ) understands the grey literature as “literature produced in government, academia and industry that is not controlled by commercial publishers”.

available with regards to applying storytelling techniques for entrepreneurial purposes. A simple Google search query using “storytelling for startups” yielded at least 8 million results in early 2024. This means that there is a vast resource pool for entrepreneurs who wish to use storytelling as a resource for their business, yet the gap we address relates to how storytelling can be used to better visualize entrepreneurial issues in the framework of policymaking.

## THEORETICAL APPROACH

Stories are, i.a., dynamic artifacts that recreate imagined or lived experiences; they help us process complex information (Davidson, 2017) and reflect a way of organizing human experience (Mayr & Windhager, 2018). This view of stories can be grasped from the seminal work of Bartlett (1995 [1932]), who proposed the concept of schema in psychology. For him, a schema goes beyond a mere pattern of information; it is an “active organisation of past reactions, or of past experiences, which must always be supposed to be operating in any well-adapted organic response” (p.201). In other words, a schema is an abstraction that we derive from experience, which then contributes to processing new information. Consider story characters as an example of how new information can be processed. Recognizing, for example, the hero and the villain is a possibility that regards how we categorize information in stories (Davidson, 2017).

Mandler (1982) linked the concept of schema with the capability of generalizing and abstracting, which humans build when interacting with the environment (p.16). When considering story ‘elements’, e.g. characters, plot, resolution or moral (Davidson, 2017) as abstractive structural input within imagined scenarios, the story becomes a narrative schema, one governed by a set of rules similar to those of language (Stein & Kissel, 2010, p. 567). In narrative discourse, the narrative schema is understood as a “principle for meaning construction”, i.e. a “major cognitive schema (...) in terms of which partial significations can be combined into a coherent whole” (Bundgaard, 2007, p. 248).

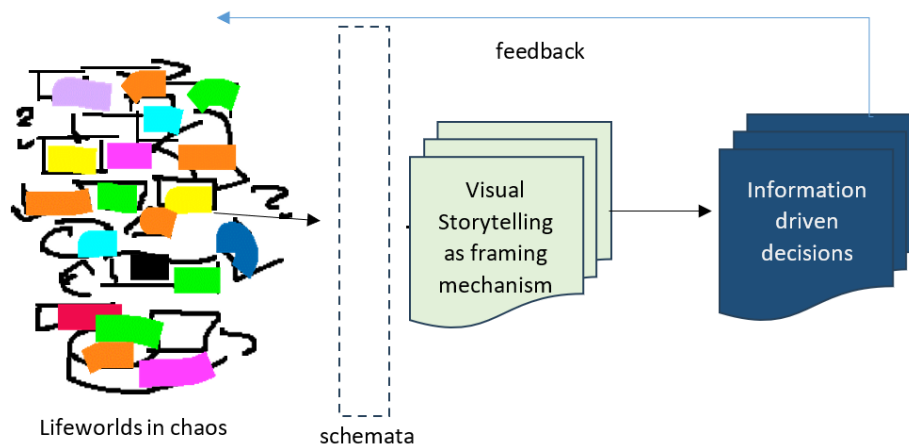
Stories can also be seen as a possible set of mental simulations where the daily life of the audience is briefly put aside (Blythe, 2017; Oatley & Johnson-Laird, 2014). When it comes to visual storytelling, this ‘simulation’ is complemented with further symbolic details that ease and even guide the audience, i.e. the use of graphics, animations, 3d models, colors, and other visual elements. Color, for example, is known to help the audience anticipate particular actions (Bellantoni, 2013), thereby simulating one or several experiences. Public art, (e.g. murals), appears as a tool and storytelling device for dialogue and identity construction, leading to a complex temporal dimension or a juxtaposition of periods (Hamilton, 2016, p. 11). In this sense, visual arts help tell transformative stories, i.e. they symbolize temporal change within a particular social context (Van Dahm, 2017).

Among the three steps that Botsis et al. (2020) lay out regarding a powerful visual story for knowledge dissemination, i.e. defining the target, checking for its understanding of the topic, and story design, the latter signals that the visual storyteller has the potential to design the ‘simulation’ and therefore the experience of abstracting from reality or simply recreating it in different ways. Following Zhang et al. (2021), visual storytelling helps explicitly present both latent and abstractive elements of stories. With this in mind, we suggest grasping visual

storytelling as a simulated environment of abstraction with potential deep meanings, i.e. a framework of communication in which schemata operate.

As Botsis et al. (2020), argue, science and design can come together in visual storytelling combining functionality and decoration for a higher purpose such as communicating scientific knowledge. Yet knowledge dissemination is one of many potential goals. Consider the role of simply communicated information for the purpose of better policymaking towards entrepreneurship<sup>2</sup>. This implies that story design may be essential for effectively communicating information to decision makers.

Figure 1 illustrates the issue of having a bulk of information, i.e. a collection of stories that may have difficulties reaching decision makers. The use of (visual) storytelling thus serves as a cognitive filter that organizes experience (Mayr & Windhager, 2018) and can thus help inform decisions. In other words, storytelling can operate as a *cognitive filter* which, if used for the sake of better policies, may benefit entrepreneurs through well targeted policies. This, however, requires agency on the side of policymakers.



**Figure 1.** *From chaos to visual stories and informed decisions* . Visual storytelling contributes to organizing the bulk of information available. The role of narrative schemas is fundamental, as they operate as filters that make activate lived experiences on an audience. If this audience is to be a set of policy makers who require input for decisions that benefit startups, informed decisions can be made with a well-organized processing of information. The latter occurs under the narrative schema that includes story elements such as character, setting and conflict.

While there are patterns and trends in entrepreneurship that can help guide policymakers and development units to cultivate an ecosystem of support, the nature of entrepreneurship is about seeking and creating circumstances under which entrepreneurial outcomes – essentially in the form of new products, services or business models – can be introduced to markets (Venkataraman & Sarasvathy, 2001). Entrepreneurship, therefore, is marked by the management of uncertainty. Recent literature has linked the importance of on-going sensemaking to entrepreneurial activity (Cornelissen & Clarke, 2010; Hong, Zhao & Snell,

<sup>2</sup> For a discussion on the convenience of different types of small business-related policies, cf. Shane (2009) and Arshed, Carter and Mason (2014).

2022; Kimmitt & Muñoz, 2018; Niemi, Stenholm, Hakala & Kantola, 2022). As faced with a need to consistently interpret and create the market, entrepreneurs must make sense of, start connecting the dots and simultaneously react to a particular situation as it unfolds. Niemi et al. (2022) refer to this as entrepreneur's need for "immanent sensemaking", which they define as a routinized way of making sense of how to proceed in novel situations.

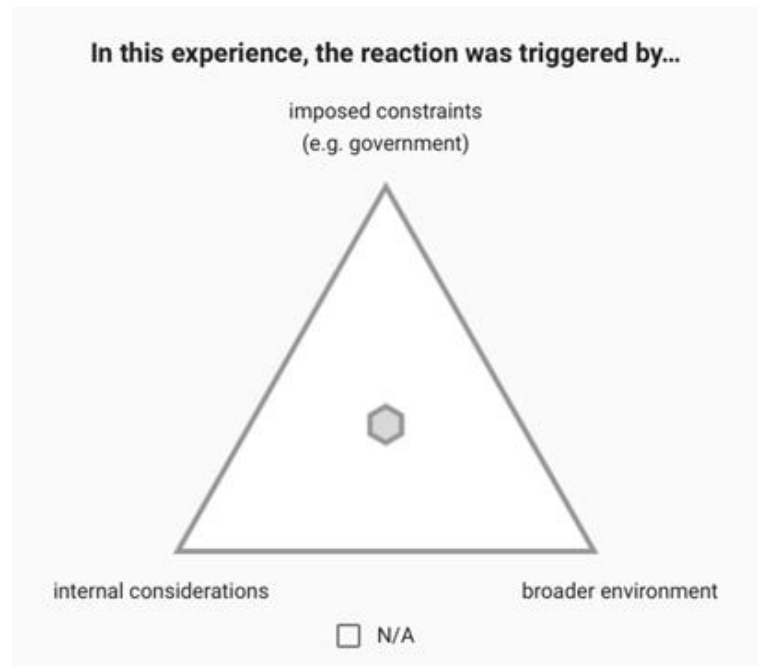
Sensemaking can be thought of as the way in which people make sense of the world and give meaning to life, i.a. through the construction of narratives (Fisher, 1985). People make sense of uncertain or unfamiliar stimuli through reframing and reconciling the new patterns and stimuli with a coherent story they can use to make sense of the situation. Narrated events and how one makes sense of them, therefore, are particularly useful for how entrepreneurs are managing the uncertainty linked to their projects. Yet not only is the entrepreneur relevant while making sense of the situation; the policymaker, if concerned with improving the context for better entrepreneurial outcomes, is also confronted with reading the situation of the entrepreneur and making sense of it productively.

## METHODOLOGY & VISUALIZATION RESULTS

We approach entrepreneurial sensemaking through a period of extreme uncertainty, novelty and disruption brought upon by the COVID-19 pandemic, which started at the beginning of 2020. Building on entrepreneurs' sense of their businesses, this body of stories provided us with the basis to explore their social patterns of cognition and also visualize their realities with the frame of an AI-generated storyboard.

The approach consisted of two main components in the framework of an entrepreneurship-related project in Berlin. On the one hand, data from the entrepreneurial journey was captured using the SenseMaker® platform in order to generate triads and understand what triggered entrepreneurial responses and what drove their strategy. On the other hand, AI-imagery generation was used based on the entrepreneurial accounts captured by the SenseMaker platform. During the COVID19 pandemic, 18 entrepreneurs shared their story along with a structured survey response on the SenseMaker platform. This project took place within a university course based on entrepreneurial journeys from 2021 to 2022. The core of the project related to understanding the challenges that entrepreneurs face amid uncertainty. The respondents operated their startups in developing and developed economies, which include Germany, Colombia, Russia, Italy, France, and the United States. The involved sectors include Biomedical & Health, Food, Education, Event Management and Construction.

The SenseMaker tool supports mixed method data capture, and combines first-hand stories with quantitative data (Van Der Merwe et al., 2019). Research questions, core concepts and hypotheses are built into the instrument as signifiers. The latter refers to a framework of predetermined questions that support the researcher's analysis and inquiry regarding experience-based stories. In this sense, respondents were first prompted to share an experience with the question: "Looking back at the past couple of weeks, please share a work-related story about the impact of the COVID-19 pandemic on you and/or your organization." Once this story was shared, the respondents were then invited to make sense of their own stories through a process of signification on geometric shapes and sliders which test specific concepts and hypotheses.



**Figure 2.** *Triad used in signification process.* A SenseMaker triad is a type of signifier question. In this example, the triad tests the factors that respondents were most influenced by. This triad considers the entrepreneurs needs to balance between their internal considerations, imposed considerations, as well as what they are observing in the broader environment. This triangle signifier forces the respondent to be more descriptive of their story and factors in the trade-offs that are necessary in decision-making. The apices of the triangle are framed as neutrally as possible, eliminating positive/negative influence from how responses are typically chosen. The way in which the respondent places their story results in background numerical coordinates that couple quantitative data with the qualitative story.

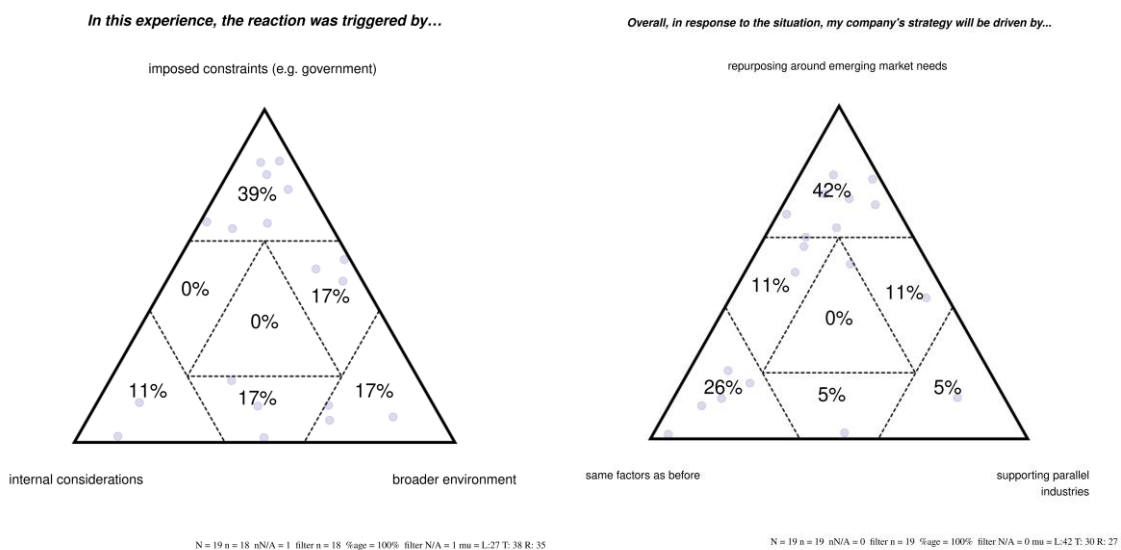
As seen on Figure 2, the use of triads provides linked qualitative and quantitative data that can be assessed in parallel. In doing so, the signification framework allows for patterns to reveal themselves over a body of stories, allowing the researcher the ability to view patterns of underlying relationships, norms, and dynamics without losing the descriptive value of the story. (Van Der Merwe et al., 2019, p.3).

In our analysis, we focused on 2 triads: (1) evaluating the influencing factors that entrepreneurs balanced against in responding to COVID-19 (internal considerations, external imposed considerations or broader environment), as well as (2) how this impacted on their overall strategy as they moved forward (whether strategy followed same patterns as before COVID-19, repurposed around emerging needs, or moving to support parallel industries). Table 1 summarizes the results.

**Table 1.** Results of Sensemaking Triads in percent. In more than half of the cases, reactions were triggered by imposed constraints during the pandemic, while the entrepreneurial strategies revolved around repurposing the business according to market needs. A third of the startups considered continuing as before.

Reactions were triggered by...		The strategy was driven by	
Imposed Constraints	50%	Repurposing around emerging market needs	56%
Internal Considerations	28%	Same as before	33%
Broader environment	22%	Supporting parallel industries	11%

The results from the SenseMaker output revealed that respondents’ reactions were mostly triggered by imposed restrictions, and that this generally had an impact on them shifting their strategy to repurpose around emerging needs. With this understanding in mind, we were able to identify key stories that were indexed to exemplify these key patterns, as seen on Figure 3.



**Figure 3.** Sample Triads. The figure shows two triads and the corresponding slider distributions which were used to later generate the prompts. On the left, entrepreneurs were asked to consider what triggered their reaction. On the right, entrepreneurs were asked to consider potential strategic aims.

For the second part of the project, and following the development of the triads, a prompt was derived from each entrepreneurial story in order to carry out a visualization exercise. The stories, whenever necessary, were translated initially using Google Translate or DeepL and then further revised by a native speaker in English (US) with a C2 proficiency in the language of origin. The prompt was introduced along with two components of the SenseMaker survey, i.e. “The reaction was triggered by...” and “the strategy is driven by...”. The final texts were introduced into Midjourney, a generative AI software that provides four visual proposals. The following box shows the structure of the prompt using solely the image category of storyboard, a relevant type of visual in the creative industries (Akleman et al., 2015).



**For prompt:** \imagine **prompt** storyboard of the experience of entrepreneurs in [country] managing through the COVID19 pandemic. An entrepreneur has shared this story to illustrate the experience [story] and has indexed their experience as [index 1] and their strategy influenced by [index 2]. ar 83:49.

This helped construct a variety of different entrepreneur personas (bringing in representation from different countries and industries) in order to develop visual stories that could be compared for context and texture. The following is an example of a visualization of an entrepreneur’s experience. For all visualizations and their corresponding story prompt, cf. Appendix.



**Figure 4.** *Sample Visualizations of Entrepreneurs.* The image was produced using Midjourney.

The visual on Figure 4 depicts the story of a Colombian entrepreneur who narrated how he was facing considerable difficulties, let alone the complexity of the pandemic. The idea of internationality appears in the upper projection of a world map above a skyline, possibly representing the international orientation of the startup.

While the visualization via storyboard generated unintelligible text strings inside the conversation boxes, the interest lay in how the machine interprets the story visually. The story elements of place (setting) and characters appear present, yet the dynamic development of the story, i.e. the conflict, is not necessarily clear, neither on this visual nor on any of the other 17 exhibits. When linking this void to visual representations that operate in public spaces (e.g. murals), the AI generated storyboard would miss one essential element that public art represents, i.e. the transformative nature of the process. What Hamilton (2016) calls the “juxtaposition of periods” is hardly visible in the storyboards, even if they are supposed to represent a timeline.



**Figure 5.** *Sample Visualizations of Entrepreneurs.* The image was produced using Midjourney.

As seen on Figure 5, which regards the narration of an entrepreneurial journey in Germany, the story element of setting is clearly shown, even that of multiple characters, yet the sequence of occurrences that the storyboard is expected to show, is hardly recognizable. Instead, there is an atomization of non-sequential scenes that depict character interactions without a particular result or visual anchor, speaking again for a lack of transformative elements in the visual. The context, i.e. the pandemic, is made visible by the use of face masks, as in Figure 4, but how it relates to the story is unclear in the visual with regards to the journey dynamics.

## DISCUSSION AND IMPLICATIONS FOR POLICY

The rise of generative static and dynamic AI-visuals and further technologies, for example, in sensemaking, offers potential when it comes to visualizing startup journeys for the sake of a more efficient understanding of the lifeworld of relevant actors, in this case entrepreneurs. In order to reconstruct what they go through, a helpful path is to capture weak signals in the stories told by entrepreneurs. This was made possible using the SenseMaker platform, which then allowed for the construction of input for AI-prompt generation.

Under the assumption that policymakers will show agency if the input received for policy formulation is clear, visual storytelling appears as a tool that eases the process, yet it does not guarantee that the crucial story elements will be depicted. This signals a weakness with regards to static visuals and suggests a cognitive advantage for dynamic visuals (e.g. AI-generated videos, which gained popularity following OpenAi's launch of SORA in early 2024). Static visuals such as storyboards, however, do portray other story elements such as character and context. This may serve as an initial input to spark a discussion with policymakers, provided they understand and translate the problems in the entrepreneurial process, e.g. complex unnecessary bureaucracy, into a solution that eases public value generation. A way to improve the process may involve aesthetic design heuristics (Ruiz Córdoba & Maya, 2022), which ease the process of cognitive processing.

Following the combination of the two mentioned tools, it seems clear that visualization without a process of sensemaking may fail to transmit the essentials of a story, let alone contribute to any successful policy building process. The successful transmission of the entrepreneurial journey is surely not limited to sensemaking, meaning that further tool combinations may offer other interesting results, having in mind that cognitive ease will be essential to maintain the attention of relevant policymakers. In this sense, visualization itself is no guarantee that the elements of a story will be appraised in a predictable intersubjective way, which matters when it comes to formulating better policies to support entrepreneurs. This implies that the input generated for better visuals must be curated in a way that the story elements are not only clear, but also *intersubjectively* clear, i.e. that the policymaker actually understands what the entrepreneur goes through as he or she lives it. In other words, if the storyteller's audience understands what the storyteller goes through, the story may "stick" (Heath & Heath, 2008).

Policymakers thus have tools at their disposal that can be used to better visualize and understand the realities that their relevant actors face. They need not be complex and long documents that will be unrealistically appraised in detail to provide solutions, meaning that attractive, well told, curated visual elements and accompanying information can be valuable

input when time and attention are scarce. In a way, this exercise of visualization is not distant from the traditional approach that a politician takes when interacting with potential constituents and collecting their stories. This exercise is a way of doing this more systematically while not forgetting the importance of cognitive ease, so that weak signals of the told stories are successfully captured and turned into policy inputs.

Our approach has several important limitations that further research may consider. We have only taken the perspective of the storyteller, i.e. not that of the policymaker, which implies that we have not accounted for the extent of intersubjective understanding of the visuals. On the other hand, this paper has not addressed the depth of entrepreneurial policy itself and how these economic actors interact with policymakers. Further, the prompts used were derived from a small set of stories that may not be considered representative of a bulk of entrepreneurial journeys, as they occurred during a major crisis and cover six countries. Also, the combination of these tools is a pragmatic, exploratory exercise that seeks to illustrate how modern policymaking can use technology and capture weak signals, yet this implies that we do not make claims about having the optimal tool combination, nor that the chosen storytelling form (the storyboard) is the best. A visualization in dynamic form, e.g. the creation of an AI-generated video, may be more promising. This implies that further research can observe how other AI-generated visuals interpret other journeys, ideally comparing static vs. dynamic visuals, as the quality of both is improving at a fast pace.

## CONCLUSIONS

This paper has attempted to combine two tools in order to visualize entrepreneurial journeys as an example of how storytelling serves the purpose of better communication, albeit indirectly serving further potential purposes: the creation of public value through better entrepreneurial policies. Departing from the 18 stories collected during the COVID19 pandemic, weak signals in the stories point to reactions having been triggered especially by imposed constraints, while the majority of the companies opted for a strategy of repurposing their business. Adding an AI-generated visual through a storyboard, their compelling stories became artifacts that may enrich discussions and interactions with policymakers. One difficulty, however, will always result if there is not enough political will to improve policies, even if the input from the relevant actors is there. However, improving the input with the mentality of cognitive ease may bring benefits in the interaction with policymakers.

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All correspondence should be addressed to:

Erick Behar-Villegas

Berlin International University of Applied Sciences

Salzufer 6, 10587, Berlin, Germany

behar@berlin-international.de

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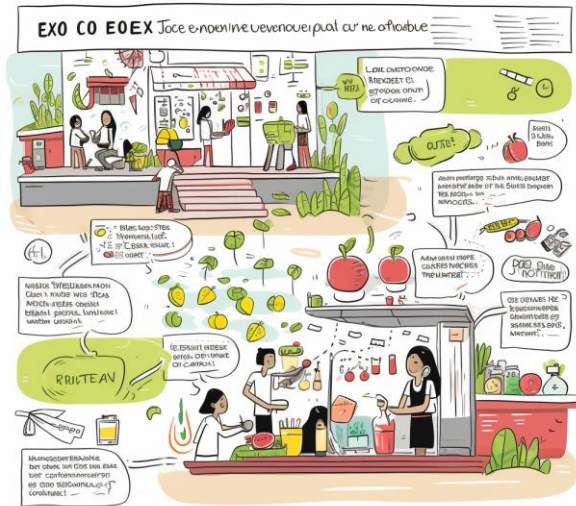
## Appendix

AI-powered visualizations by startup. The visuals are presented with the name of the country where the startup was founded along with an index representing the number of the startup.

Colombia 1



Colombia 2



Colombia 3

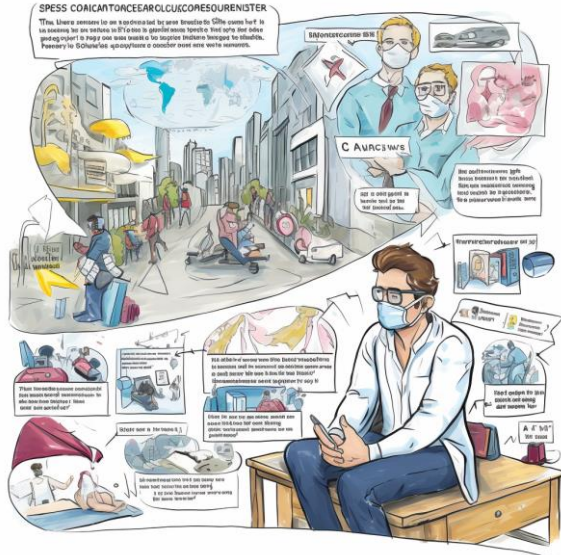


Colombia 4





Colombia 5



Colombia 6



Colombia 7



France 1



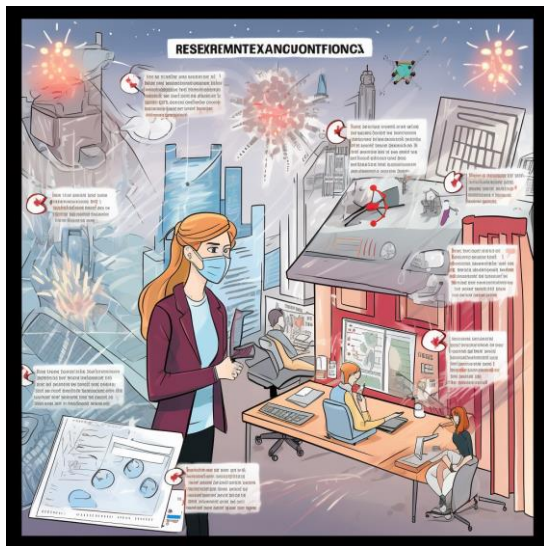
Germany 1



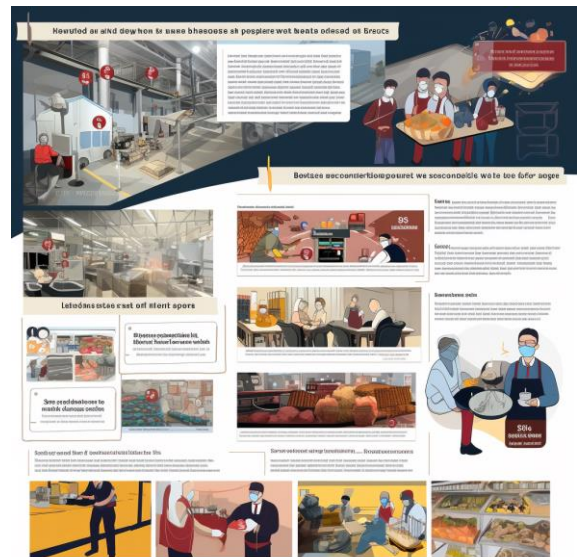
Germany 2



Germany 3



Germany 4





Germany 5



Italy 1



Italy 2



Russia 1





## Story Repository

Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
Germany 1	A big part of our business had to do with offline events (we focus on education + networking). It fell apart as offline events were obviously not allowed anymore during the pandemic.	Internal considerations / Broader environment	Repurposing around emerging market needs
Colombia 1	We work in the construction sector. Due to sectorized quarantines in Bogota, our construction projects have shown delays for several reasons. For example, contractors living in quarantined areas were not able to come to work, suppliers delayed the delivery of materials, supervising personnel were isolated for covid testing, special working hours have changed our working schedule, reducing one hour a day plus the time lost on biosecurity protocols.	Imposed considerations	Repurposing around emerging market needs
Colombia 2	My entrepreneurship is called Detox Juice Green Shakes. It has always had social networks as a communication channel, not only to make us known but also through these social networks, sales were generated. Before the pandemic, we managed to open distribution channels in different establishments where the product was useful, but following the Covid pandemic, these distribution channels had to be closed since they were not essential establishments. This caused us to run out of these distribution channels of our product. After this, we focused all the attention on digital social networks as the only sales channel, learning from the market, network marketing and other tools in which we support each other. We already had this when we had physical sales channels. We saw an opportunity in the midst of the crisis and took advantage of the digital media to leverage and generate sales.	Imposed constraints	Repurposing around emerging market needs

Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
Italy 1	<p>On the level of the small business, the difficulties and problems that we have are surely very different to those of the big companies. They are simply different concerning the impact and how we face the situation. The big ones are supported by the State, and the small ones are abandoned to their own responsibility, and since they are sometimes part of a family in Italy, it is more difficult, and everyone has to work hand in hand, facing difficulties, working more, solving problems. In 2009, we had a flood in Christmas, everything under water, and then we started over, buying the labels, new machines. We had more than 200.000 euros in losses, and then also the financial crisis came. We overcame the crisis with products of high quality, looking for a different market segment, with projects and adaptation of our pesto production. It is difficult when the supermarkets want a product because they need the big brands like Barilla, and now in the pandemic, the problem is the lack of dialogue with people, because our business is about providing good services, so the lack of contact, we could not introduce ourselves to new companies who do not know you, but we still have to work with our face and our seriousness to transmit our feeling, otherwise, with contact via zoom, everything is reduced to looking at a catalogue, prices and not the person. The first 2 months, we had uncertainty: what do we do now? we had a loan and were not selling our products, so we had to go to the bank to ask for more and have a personal loan, we had to speak to three banks who wanted to lend money to us in September, but we needed it in May, that means right now. Some clients who bought 100 to 150 kg pesto, we had to send them 10 kg with the same logistical costs otherwise we would lose them. Do i feel fear? yes, with banks, suppliers and clients. You feel so much uncertainty, everything is doubt, the house I had bought now served as bank warranty, and the State forced us to pay the same taxes as if nothing had happened. We had to pay property taxes, VAT, and then 20.000 eur for the property at which I cannot produce anything... A serious State should understand what it should do. They should have created more beds in the hospitals instead of creating temporary solutions that are a waste of money, not investments for the future. Banks were charging 2% interest while they got it for 0%.</p>	Imposed constraints	Same as before
Germany 2	<p>In general, running a business for me means to deal with new challenges on an every day basis. Most of them are just annoying, easy to solve or not overly complicated. We, as many other businesses in the Food &amp; Beverage industry have been highly impacted by the lockdown measurements. We solved this in moving our business online and transferring resources to make our online shop presence more appealing and better in regards to content, UX and design. Unfortunately on the 10th of March we have been informed that our whole website, including all content, user information, site structure and banking details burnt down. We had stored the site and the back up system with a globally operating cloud service provider who was running a data center in Strasbourg, France and that very data center burnt</p>	Imposed constraints	Repurposing around emerging market needs

Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
France 1	<p>to the ground. Obviously the impact was massive as we lost the last functional business column carrying us through the crisis. Nonetheless we are used to getting shit done and we therefore managed to set up a new shop on Shopify within 24hours and although this shop showed only a fraction of our product, the information around the product and the services we provide, we had a new starting point. Now after six weeks the site is very much alive, new services have been integrated and we have almost reached the level of sales we had before we burnt down.</p> <p>As a producer of flours and flakes for human consumption (mostly based on wheat, spelt, rye, oat and barley), we faced a dramatic explosion of demands from our food retailing sector, starting in March 2020 in France, when the the French Government proclaimed a first Lockdown. Paradoxically, our major logistic partners suffered under a massive demand breakdown and tried to raise their prices on certain routes that suddenly had no back-routes to book. This situation occurred again in November 2020, during a second breakdown. As demand overtook again our production capacities, we decided to establish a "quote" system, allowing a certain amount of trucks per week for each warehouse. This regulation did not satisfy our client procurement departments, but it was necessary and in the end, we were proud to have delivered every order made during the period, avoiding larger sold-out situations that could have endangered our contracts and trading-relations. Unlike the first lockdown, schools kept open in November 2020, so that families did not stay entirely at home. Consumption habits did not change radically compared to a normal season, nore the baking habits. Finally, our food retailers faced a large overstocking problem after the end of the November lockdown. After great turnover in November, December and January became very quiet.</p>	Imposed constraints	Repurposing around emerging market needs
Colombia 3	<p>Covid-19 has been a huge impact on our organization with both positive and negative outcomes, it has allowed us to understand that the internet is here to stay and more importantly, is here to help us communicate better. Throughout the pandemic we as a construction organization had the opportunity to understand that meetings could and will be held electronically, allowing for bidding processes to be handle faster and more efficiently. As in the past, normally we would have to travel around the world in order to conduct meetings for possible projects, now days due to the pandemic it allowed us to understand we could have meetings that would accelerate the bidding and research [process of projects.</p>	Internal considerations	Repurposing around emerging market needs
United States 1	<p>Actually, COVID-19 was a blessing in disguise. We started our company during the pandemic, and so far we've been tremendously successful.</p>	Broader environment	Repurposing around emerging market needs
Colombia 4	<p>I am an entrepreneur who created his microenterprise 7 years ago. The year 2020 thought that it was going to be very good, we were growing and that is why we hired new staff and invest</p>	Imposed constraints	Supporting parallel industries

Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
Germany 3	<p>in opening a new market. Today the panorama is not encouraging, we had many losses, our customers stopped working, even one of the most important died of Covid, negatively impacting their company and therefore our commercial relationship. Today the numbers talk about a reactivation, but not powerful enough to recover what the pandemic took. There are fears and uncertainty and we have lost the focus, we are not clear about the course of action to follow.</p> <p>Germany is implementing new restrictions regarding the coronavirus pandemic as of the 16th of december, 2020. This means that schools and kindergardens will be closed. In our company many people have kids, so they need to stay home and take care of their kids. Our company decided to provide all office workers, who were affected by new restrictions, with laptops. In this case people could work from home.</p>	Imposed constraints	Same factors as before
Colombia 5	<p>We have been a virtual company since 2010 and have monthly face-to-face meetings. Our customers were facing a big demand and it was already difficult for us from the middle of March. Fear spread and fixed costs took the air and company. But out of this came a push for digitalization and since then we have less business travel but more performance in working hours. Furthermore, we have had a better carbon footprint since then.</p>	Internal considerations	Repurposing around emerging market needs
Colombia 6	<p>The beginning of the pandemic was quite difficult, more than anything because of routine changes. My venture was simply aimed at giving all people or organizations a space that were focused on helping others. I simply had it as a directory, and the social networks that acted as a service to give visibility to the causes (the little visibility is one of the largest problems that the foundations have). Following the pandemic, many people began to contact me, people who were having a bad time, many writing that they had no roof for their families or anything to eat. At that time I thought that I could do something bigger, something that could have a greater impact on society, in this way I decided that we will now should take another course. Within the platform there are 3 main users: foundations, entrepreneurs, subscribers. The foundations can create their profile, create publications, tell us what they do, why they do it, if they have events and how we can help them. On the other hand are the entrepreneurs, where they can publish their entrepreneurship and their products, with the only condition that a percentage of their sales (they can choose which one) is aimed at one of the causes recorded on the platform, in addition to this we will advertise to your ventures within our social networks. Finally the subscribers, who can come into contact with entrepreneurs and foundations, comment and link with the projects; In the future we want to gamify the platform, where rewards are granted for each action you perform: "You helped a puppy", "Don", "you performed volunteer." The pandemic helped me to direct my project on another way, a path that I hope and I want to impact the lives of many people.</p>	Internal considerations	Supporting parallel industries / Repurposing around emerging market needs
Italy 2	<p>my father, founder and CEO got infected back in december, other than the profound family grief from the situation, the</p>	Imposed constraints	Repurposing around



Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
Colombia 7	<p>company faced a credit crunch from banks and providers, lack of confidence from stakeholders, including employees but after a few weeks (he's still in the hospital) his situation helped the team come together and implement changes that will prove to be good for the company in the long run.</p> <p>It has taken a year. On a saturday morning of March 21st 2020, we decided to challenge the engineering team and we decided to build mechanical ventilators. Since we started that development, it has been like if we lived in a paralell wolrd. While everybody suffered the lockdowns, we kept working, even harder than before to develop our own mechanical ventilator, even when we knew nothing about mechanical ventilation. In the personal side of things, we have had some of our coworkers infected by covid-19 as well but fortunatelly they have all come out ok from their illness. However and unfortunately, some relatives from our coworkes have died due to Covid and their existing comorbidities, which has greatly affected everyone's mind health. The pandemic is almost gone, and regulations and "uneducated burocracy" in Colombia made it imposible for us to put a product in the market for pandemic pourposes. This has created a lot of stress on our small company cash flow which we are still trying to ease. Nevertheless, we continue working to be able to develop a product in the long run, which can be good for the worldwide market in the future.</p>	Broader environment	<p>emerging market needs</p> <p>Repurposing around emerging market needs</p>
Russia 1	<p>The demand for the ritual services we provide in Togliatti, Samara region, in the Russian Federation, from the late 2020 until early 2021, increased by 30 %. New offers of goods that meet the increased safety requirements have appeared. In February-March 2021, the demand decreased, which indicates a slowdown in the spread of the disease or the appearance of immunity in the population.</p>	NA	Same factors as before / Supporting parallel industries
Germany 4	<p>We are a medium sized whole sale company for fresh and chilled food in the west part of Germany. Located close to big cities like Duisburg, Essen and Düsseldorf. During the pandemic we noticed disrubrion from products for the out of home market to self service products for home consumption. Taking in consideration that through the pandemic influence there should be a lot of people with unstable working situations, we have been optimistic to hire new qualified people. We send out job announcements to every well known job websites and the central employment agency. For the assistant in our quality departments (part time) we received 2 applications. One from a guy who is 34 years old and unemployment since 5 years. He does not even had the minimum qualifications for an office job at all. The other application came frome a lady that lived in Maroko and had no work permit for Germany. 2 candidats has been contacted proactive via social media like linkedIn and Xing. Both of them ask the near the double salary what was in budget.</p>	Imposed constraints / Broader environment	Same factors as before
Germany 5	<p>After my birthday, I got COVID with my mother and my brother. Even though I hadn't smoked in more than two years, I felt coughing as I had never quit. Coughing and a sore throat are</p>	Internal considerations /	Same factors as before

Country	Story for Prompt	Reaction triggered by ...	Strategy driven by...
	two terrible foes for a language teacher, so I had to cancel classes for two weeks. After I got negative for covid, I still coughed and had to tell my students to understand my health issues. It has been quite an uncomfortable month.	Broader environment	
Colombia 8	The pandemic has affected the economy in general, which behaves as a domino effect for us, reducing many sources of income. In my case this year they could not hire more people again in the company.	Broader environment	Same factors as before