The author is indebted to Erika Gregory, a founder and Director of The Idea Factory, and John Petersen, founder of the Arlington Institute, for sharing their extensive expertise in the fields of Future Scenario Planning, Strategic Scenarios and Future Worlds.

Future Scenario Planning

Scenarios are ways of placing ourselves in possible dynamic futures in order to define paths of action toward a desired future, sometimes called a “normative” future that we want to bring about. Scenarios are also stories about different ways the future could plausibly unfold – both desirably and undesirably. Central to the practice of scenario planning is the tenet that you can’t predict the future, but you can be influenced powerfully and positively by possibilities that you and your colleagues, mixing analysis and intuition, can imagine together. Scenarios provide a robust framework for examining those possibilities, because they force you systematically to explore the political, social, technological, economic and environmental edges of your present world for insights into the future.

Scenario planning was developed by Herman Kahn at the Hudson Institute in the early 1960s, and refined in practice by the Group Planning department at Royal Dutch/Shell in London under the guidance of Pierre Wack, who described it as “the gentle art of re-perceiving.” Members of Pierre Wack’s core group, drawing on ideas from all over the world, used the technique of telling stories about the future as a way of grasping implications of the unfolding oil market and to design strategy accordingly. More recently, think tanks like Global Business Network, Institute for the Future, and the Arlington Institute, drawing upon their world-wide networks of remarkable experts, have introduced scenario planning to corporate and government strategy teams around the world.
One of the most widely known examples of future scenario planning is The World Game, based on the work of R. Buckminster Fuller in the 1960s and 70s and available today in the form of a multiplayer game learning tool called o.s.Earth Global Simulation.

Strategy scenarios have often been criticized for emphasizing their intellectual origins and lacking “flesh and blood.” Corporate audiences have often noted that strategy scenarios do not seem to reach far enough beneath an analytical or abstract plane to the guts of human experience, to a level of humanity that makes us feel and care. This is why, at The Idea Factory, we bring future scenarios to life as immersive narratives, so that all involved can experience the future and its implications rather than just reading about them.

For the purposes of INDEX, The Idea Factory has introduced design students to scenarios at three scales:

1. **Macro Scenarios (or Future Worlds):** These are the kinds of scenarios John Petersen creates at the Arlington Institute. They are projections of the forces—economic, social, technological, economic, and political--that are likely to create change in the future. You identify the key global drivers, and then project their possible/likely trend vectors. Then you create a set of possible/probable Future Worlds, all very different from one another. In reality, the future is likely to have some attributes of all these different worlds. Often, the map of worlds looks like the one John Petersen created for the INDEX student teams -- a 2 x 2 Change Matrix chart created by drawing two axes, one of external uncertainties vs. internal uncertainties (although there are other formats that are also used). Macro scenarios look into the future “at the 30,000 meter level.”

You can do this kind of work in many ways. At one extreme, you can have a single expert postulate future worlds based on his/her own judgment and expertise; or you can have a staff of analysts constantly doing longitudinal research in specific subject domains (Health Care, Energy, Information Technology, Defense, etc.) and generating 3, 5, 7, or 10 year projections every few years. Or you can systematically sample the opinions of worldwide panels of experts from many fields and have a staff that assembles future world scenarios from this input. Or you can engage teams of experts having highly differential views from diverse fields in high-intensity brainstorm sessions using generative digital tools like Thinktools to not only project future worlds but to create and evaluate various strategic scenarios for achieving desired (normative) worlds.
John Petersen at the Arlington Institute and we at the Idea Factory use elements from all of these techniques. In addition, at the Idea Factory, we often create full-scale, three-dimensional, real-time experiences that are like stage sets where participants enter into physical depictions of different future worlds, encountering actors that represent people in those futures. Participants may sample newspaper and magazine articles, TV and Internet from those futures; perhaps being assigned “passports to the future” that assign them roles to play within the different future worlds.

2. Strategic Scenarios are large-scale plans of action for bringing desired worlds into being. These can take many forms — written narratives; models and simulations using flow charts, matrices, and dynamic graphical representations of statistical material; or visual graphical illustrations that can be physical, virtual and/or dynamically interactive; or physical or virtual 3-D mockups at full or reduced scale. Strategic Scenarios tend to be views into the future as seen from the “10,000-meter level.”

3. Persona-based User Scenarios (also called Micro Scenarios, Day-In-the-Life Scenarios or Customer Experience Scenarios). If INDEX is to effect positive change, it has to have an approach that helps organizations, decision makers, and creative innovators not only imagine possible futures, but take actions that link the given present to the desired future.

In recent years it has become standard practice for designers and strategists to create scenario stories of how future users will interact with the products, communications, environments, software or web sites being designed for them (although, curiously, scenarios still are taught in few design schools). Designers find this narrative technique invaluable for eliciting the tacit, latent and emergent needs and wants that customers find it difficult to tell you about explicitly. User scenarios are “an imaginative leap into future,” not as an abstract exercise -- the 10,000-meter view -- but as a ground-level view of real individuals in their daily lives. User Scenarios typically take the form of illustrated narratives, like comic book storyboards, of a particular “slice through time” in the life of a specific person at a specific moment in the future.

It is crucially important for organizations constantly to be looking out at the forces that will create change in the next 3, 5, and 10 years and to model possible strategic future worlds. But that is only half the job. In my experience, decision makers in organizations have great difficulty translating long-horizon scenarios into strategic behavior in the present. One of the reasons we created the Idea Factory was to help organizations translate future scenarios into something to do differently next Monday morning. The Idea Factory has done this kind of work for organizations
such as Nissan, IBM, Hewlett-Packard, General Motors, Levi-Strauss, UPS, FedEx, TPG, Shell, Malaysian banks, Proctor & Gamble and a number of ministries of the government of Singapore. Often, we were brought in by leading future scenario think tanks like Global Business Network and Institute for the Future to help clients translate their long-range macro scenarios into near term strategic actions.

**Personas**

The characters in user scenarios are called “personas.” A persona can be a real-life individual or a composite of demographic, sociographic and psychographic characteristics drawn from field study of real people in present day situations. In either case, designers go out and study people in their natural settings, using observational techniques drawn from the field of cultural ethnography. The technical title for this process is “contextual inquiry.” However, one does not have to be an ethnographer in order to do a very useful “lite” version of ethnographic field research.

The research includes observation of people in their habitual environments, structured questionnaires, interviews and open-end conversations. User Scenarios depicting users experiencing future products, communications or environments make use of a range of personas, usually not fewer than four, but there can be as many as twenty. All personas must be as different from one another as possible along a set of behavioral, attitudinal and demographic dimensions. Each persona represents a different target user segment, with his/her own distinctive needs, wants, motivators, influencers, attitudes, and behaviors. These are the insights into present day life that lay the foundation for foresight about life in the future.

In order to empathetically adopt the perspective of the persona, it helps to think in the first-person and to use “I” statements when recounting scenarios, as if one were “walking in the shoes” of the persona.

The question always arises whether a persona should represent some sort of “average” person. The answer depends on the subject matter of the specific project, the particular market being addressed and the “foresight horizon” of the future scenario (are we looking out 18 months? Three years? Five years?). Generally speaking, when the subject is a product, communication or environment in a fast-changing consumer market, not only should a persona “cast of characters” be as different from one another as possible, they also should be “on the fringes” of populations. You should not waste time looking for “the average” person at the center of the normal distribution bell curve. Today’s average customer (who does not really exist) tells us nothing about designing for tomorrow. The centerline of the normal bell curve is always moving, ever more rapidly, toward the emergent edges. Most design researchers these days look for people that serve as advanced indicators for where the larger population is
By contrast, a researcher in a more slowly evolving field has to give attention to both the forward edge or change and the slowly evolving center of a given user population or market segment. An intriguing example exists in the field of political strategy. Tom Easley, Democratic two-term governor of the state of North Carolina, is obsessed with a popular animated television situation comedy show called “King of the Hill”. He instructs his pollsters to separate the state’s voters into those who watch the show and those who don’t so that he can find out whether his arguments on social and economic issues are making sense to the show’s fans. The persona who Easely observes so closely is Hank Hill, protagonist of the show. Hank, the head of a working class family in a small rural town in Texas, drives a pickup, owns guns, eats at fast food restaurants and shops at huge mall discount stores. Politically, Hank is an independent, moderate conservative who struggles to understand and adapt to the economic, cultural and demographic transformations going on in the world around him. Hank perfectly epitomizes the “everyman” profile of the 18 to 49 year old men that make up his primary viewing audience. That same population of conservative, pick-up driving, beer drinking gun owners is the one governor Easley has to reach in South Carolina. When the governor prepares to make his case on a partisan issue, he imagines that he is explaining his position to Hank Hill.

Persona Mandala

At the Idea Factory, we often assemble the material gathered from ethnographic research into what we call a “Persona Mandala.” This is a collage of text and visual images arranged in concentric circles around a portrait of the persona and intended to “bring the persona to life.” The form is that of a mandala, which is an abstract symbol common in Buddhism and Hinduism. Its concentric shape symbolizes a person at the center of his or her world. Mandala is Sanskrit for community or connection, which nicely sums up thinking about how design can improve life for people situated in their larger social and cultural contexts.

With respect to visual images in both persona mandalas and user scenarios, the more the better! They are very important to the process because visual images convey the tacit, implicit, subjective and emotional qualities of your persona that text never can capture. Visual images help evoke a persona’s needs, wants, values and aspirations in a concrete, if metaphorical way.

Scenarios for Idea Generation, Narration and Communication

In professional design practice, we use Strategic Scenarios (“2”) and User Scenarios (“3”) not only as ways to narrate and dramatize stories about “stuff” that we have already designed. We use scenarios as generative tools that go hand-in-hand with the design process in an iterative fashion. For example: first
we do the essential domain and ethnographic research. Then we create personas representing key target user segments. Then we tell stories about these personas in future situations in a rough way. Then we make many fast, rough drawings and prototypes and mockups which we assess — then we retell the story in a more developed way, while selecting and refining the design alternatives. Finally, we tell the story illustrated with the fully refined design in a realistic model, prototype or simulation. It is by going through the scenario process that we generate the definitions for the user's requirements and specifications for the design. Student, professional, and company teams should use scenarios not merely to communicate design concepts, but as generative tools to be applied iteratively and in parallel with the development of their designs.

Within user scenarios, personas typically are depicted interacting with one another and with future products, communications, or environments in cartoon-type storyboards accompanied with a short narrative or descriptive text. The drawings can be simple and crude or highly detailed and elaborate. There are many other forms these scenarios can take. These include a single illustration with an extended, detailed narrative; or physical role-playing using background sets and props; or digital, virtual representations. Or they can be “modular collaborative scenarios”, where participants are given “kits of parts” that they can assemble into mock-ups of products, communications or environments (this is often called Co-Design). Scenarios can also be online, multi-participant, collaborative worlds, where participants assemble environments and experiences from digital kits of parts (See Bruce Damer’s “Digital Space Commons,” a host site for collaborative online worlds).

When introducing people to the use of scenarios, after giving them an overview of the many narrative forms a scenario can take, it is a good idea also to let them come up with their own way telling a persona’s story. I discovered this working in Singapore with officers of the Ministry of Education on redesigning the education system of Singapore to emphasize creativity and innovation. I had told the working teams they could create scenarios using either standard cartoon-type storyboards or role-playing enactments. Instead, one team, without asking if it would be okay, diagramed their scenario story as a “Mind-Map.” This turned out to be a very rich and flexible narrative form, one that revealed patterns and interconnections not apparent in a linear storyboard. What I hadn’t known was that in Singapore grade school students all learn mind-mapping, making it a natural way for them to structure a complex field of information.

Cultural differences can make scenario forms successful in one country useless in another. The Japanese, who pioneered the process in the 1970s of creating “life-style” collages of potential customers, appreciate the analytical process but are distinctly uncomfortable taking part in performance narratives like role-playing or improvisation. Singaporeans, on the other hand, tend to enjoy role-playing and are very good at it. Italians love everything about interviewing and observing live
people, creating exuberant collages of personas and imagining them in future situations.

At the Idea Factory, we often create full scale “theatre sets” that recreate a persona’s environment at home, at work, at play, or on the move. These experiences immerse participants in the people, products, communications and environments of worlds 3, 5, 7 or 10 years in the future. These realistic, full-scale physical spaces may also incorporate impressionistic three-dimensional “collages” or digital simulations.

A final consideration about scenarios at all scales is that they must be based on prior research and domain knowledge. Creating useful Macro Scenarios/Future Worlds like those that John Petersen generates at the Arlington Institute requires a staff of professional futurists, researchers and strategists with expertise in myriad specialized fields of knowledge. For their part, student and professional design teams have to base their Strategic Scenarios and Persona-based User Scenarios on first-hand ethnographic research of real people in present day situations supplemented by as much relevant information as possible about the economic, social, cultural, political and technological forces that are going to create change in the future -- endless reams of which are available on the internet.

________________________

Copyright © Arnold S. Wasserman and The Idea Factory, 2005
Copying and/or reproduction of this document in whole or in part without written permission of the author is prohibited