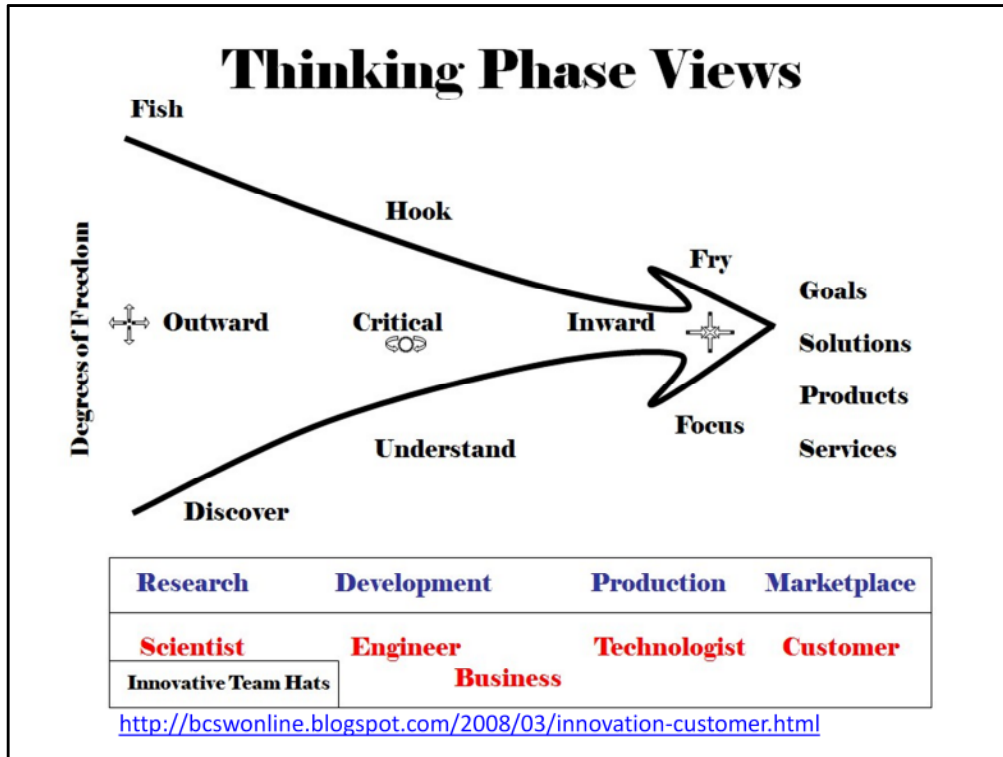


The design funnel illustrates two disciplines and two concepts. The disciplines are sketching and prototyping, and the concepts are ideation and usability. Sketching is valuable for idea generation because it's fast and enables ideas to be explored quickly and cheaply. More refined designs can be tested at later stages of a project by building prototypes to test the usability of the ideas that we've decided to focus more of our attention on – and this is how we define a prototype in this book --- as a tool to help test the usability of an idea with design criteria. The further we get into the world of prototyping, the more invested we become in process, and the more focused our design becomes; this is represented by the funnel in our illustration. As we transition from ideation to usability, the weight of the design criteria we use for our project takes on more importance, and it requires a bigger investment in time and money. This is represented by the arrow in the graphic. Finally, this is not a linear progression; it's iterative, and the circles represent the iterative nature of this process. It also means our criteria and rigor isn't constant in a smart and innovative design process; we want less rigor, not more, in the ideation process; as we move deeper into a project, we want to slowly but certainly ensure that we've got consistent, rigorous, and valid criteria to evaluate our prototypes.

Source: Dynamic Prototyping with SketchFlow in Expression Blend. By Chris Bernard & Sara Summers; QUE © 2010



The diagram shows degrees of freedom of innovation begin wide outward looking, then progressing to critical and then inward as the solution options become narrowly defined. This metaphor of the “Fish – Hook – Fry” was early metaphor thinking that illustrates this narrowing of the degrees of freedom in the innovation development process. Although this is a simple way of looking at the process it illustrates how innovation was part of the thinking phase for anyone wanting to eat. The goal is to eat with several ways of obtaining food such as fishing, hunting and gathering. In today’s society we scout out the grocery stores and choose items we want to have for a meal, purchase and then prepare the meal. You can see the many examples in grocery stores of companies building competitive service and wares. Some of these focus on packaging options to make their products more attractive for the consumer, such as portion sizes or preprocessed to save time in preparation.

On the lower curve we see the Discover, Understand and Focus process that is sometimes used in discussing the creative problem solving process. At the bottom of the diagram are shown the Research, Development, Production and Marketplace domains and the Innovative Team Hats of Scientist, Engineer, Technologist and Customer with the Business Hat managing the process. Try your hand at thinking through product development process where the above concepts are used. I hope this gives you some new ways of thinking inside and outside the box to build competitive services and wares.