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A Glossary on Design, Innovation and Governance

From the time of the Sivasutras through to the Hobson-Jobson Dictionary and the techno-futurist writings of J. G. Ballard, definitions and redefinitions have served as critical means through which to establish new discourses and constitute new communities.

Here we have created a glossary of terms that are often used by designers and innovation specialists. We have also addressed key terms related to governance and state-craft. We hope you will find these entries to be useful for reference before, during and after the Conclave.

Where we have found good definitions ready-to-hand, we have specifically cited the authors or institutions who have provided them. In all other cases these definitions have been created at the Center for Knowledge Societies.

Apple An American corporation that reigns as the current organizational embodiment of design, innovation, and user-centered thinking, creating products that seem to anticipate user's expectations and desires before they are even aware that they have them.

Brainstorming A collaborative activity in which small groups work together to generate as many new ideas or solutions to a problem as they can in response to particular kinds of stimulus and a particular framing of the problem. Ethnographic data is often the best form of stimulus. Large format index cards or post-it notes are good ways for participants to express their ideas. Team members should seek to build upon one another's ideas and to express them visually, so far as possible.

Co-creation
"...increasingly, the joint efforts of the consumer and the firm - the firm's extended network and consumer communities together - are co-creating value through personalized experiences that are unique to each individual consumer. This proposition challenges the fundamental assumptions about our industrial system - assumptions about value itself, the value creation process, and the nature of the relationship between the firm and the consumer. In this new paradigm, the firm and the consumer co-create value at points of interaction. Firms cannot think and act unilaterally."
--Prahalad, C. K., and Venkat Ramaswamy. *The Future of Competition: Co-creating Unique Value with Customers*. Boston, MA: Harvard Business School Publishing, 2004.

See also: **Crowdsourcing**

Concept Design The description of a possible design solution in words, diagrams, and other forms of text and visualization to communicate an imminent possibility that

does not yet exist. **Concept Design** is the first and fundamental stage of design, from which the proposed solution may come to be described to increasingly levels of fidelity.

Convergent Thinking
"The ability to narrow the number of possible solutions to a problem by applying logic and knowledge."
--"Convergent thinking." *Gale Encyclopedia of Psychology*. Farmington Hills, MI: Gale Group, 2001.

See also: **Divergent Thinking**

Crowdsourcing The inclusion of large groups or the public at large into specific forms of decision making or solutioneering using public platforms such as websites, wikis, mobile media or other mechanisms that allow members of such groups to contribute ideas or propositions and for others to validate, ratify or improve them.

Design 1. Any expression of intentionality or purposiveness by an agent, including for example the scratching of one rock against another. 2. The process or path through which a final solution comes about. 3. The iterative description of a proposed solution, using language, gesture, text, visualization, plastic modeling, and any other form of human expression, to increasingly higher degrees of fidelity, until it approximates the object of design itself. 4. To see the world other than it is, to see it as it could or should be.

design An increasingly fragmented set of visually-related competencies, acquired more through apprenticeship than through formal training, that subserve the needs of post-modern consumer capitalism.

Design Engineering The technical development of a **Concept Design**, beyond its visual, formal and strategic articulation, towards a working prototype that will nearly resemble the final product, by employing the tools and technologies of material, electronic, informatic or other dimensions of Engineering.

Design Research All forms of data capture, research, intelligence gathering, and insights generation that may serve to inform the design and development of any product, service, system or solution. Methodologies commonly employed in the course of Design Research may include ethnography, user interviews, usability tests, and other interactive and immersive means for engaging with and observing prospective users.

Design Strategy An overarching approach and systematic policy of expressing, associating or otherwise aligning the physical and aesthetic values of a product or service with the expectations and needs of users (based on underlying conceptual, social, psychological or other factors) so as to advance the commercial interests of the manufacturers or providers.

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Design Thinking Ways of thinking, conceptualizing, imagining, and envisioning solutions to problems that (i) redefine the fundamental challenge or task at hand, (ii) develop multiple possible options and solutions in parallel, and (iii) prioritize and select those which are likely to achieve the greatest benefits in terms of, for example, impact, viability, cost.

"Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success."
-- Tim Brown, president and CEO, IDEO, <http://www.ideo.com/about/>

Divergent Thinking
"The ability to develop original and unique ideas and to envision multiple solutions to a problem."
--"Divergent thinking." *Gale Encyclopedia of Psychology*. Farmington Hills, MI: Gale Group, 2001.

See also: **Convergent Thinking**

Ease of Use
"[Usability/ease of use] has been defined in a very broad and inclusive manner as "the quality of use in context." However, the practice has focused heavily on task-centered thinking. If a given user accomplishes a given task quickly and without mistakes, the product is usable. Understanding the user is in effect understanding how that person performs the relevant tasks. What particularly characterizes the discipline is just how detailed this understanding has to be. The tasks to be evaluated are deconstructed into the smallest pieces imaginable."
--Lindholm, Christian, Turkka Keinonen, and Harri Kiljander. *Mobile Usability: How Nokia Changed the Face of the Mobile Phone*. New York: McGraw-Hill, 2003.

Ethnography
"Ethnography involves the researcher's study of human behavior in the natural settings in which people live. Specifically, ethnography refers to the description of cultural systems or an aspect of culture based on fieldwork in which the investigator is immersed in the ongoing everyday activities of the designated community for the purpose of describing the social context, relationships and processes relevant to the topic under consideration. Ethnographic inquiry focuses attention on beliefs, values, rituals, customs, and behaviors of individuals interacting within socioeconomic, religious, political and geographic environments."
--American Anthropological Association, <http://www.aaanet.org/stmts/irb.htm>

Experience
"Experience is limited by all the causes which interfere with perception of the relations between undergoing and doing. There may be interference because of excess on the side of doing or of excess on the side of receptivity, of undergoing. Unbalance on

either side blurs the perception of relations and leaves the experience partial and distorted, with scant or false meaning. Zeal for doing, lust for action, leaves many a person especially in this hurried and impatient human environment in which we live, with experience of an almost incredible paucity, all on the surface. No one experience has a chance to complete itself because something else is entered upon so speedily. What is called experience becomes so dispersed and miscellaneous as hardly to deserve the name. Resistance is treated as an obstruction to be beaten down, not as an invitation to reflection. An individual comes to seek, unconsciously even more than by deliberate choice, situations in which he can do the most things in the shortest time."
--Dewey, John. *Art as Experience.* New York: Balch & Minton, 1934.

Governance The practice and process of administration, management, regulation, organization and coordination of the machinery and apparatuses of the state.

"The word yogakshema *is a compound made up of* yoga*, the successful accomplishment of an objective and* kshema*, its peaceful enjoyment. Thus, peaceful enjoyment of prosperity, i.e. the welfare of the people, is given as much importance as knowledge, self-control, and observance of* dharma*.*
--*The Arthasastra of Kautilya*. Translated by L. N. Rangarajan. Penguin, 1987.pp. 70-71.

Innovation 1. Bringing newness into the world; making and remaking the world anew. 2. The transformation of insight into actionable knowledge that can make new use of the social and material technologies already available in the world.

Innovation Cycle A process devised at the Center for Knowledge Societies to integrate three distinct components of design thinking into a formal innovation process, including: **(i) Understand**: the use of ethnography to describe the context, behaviors, needs and preferences of users in their everyday environment, **(ii) Develop**: the conceptualization, creation, development, detailing and specification of multiple possible solutions, and **(iii) Enhance**: the testing, trialing, and refinement of proposed solutions through interactions with end-users either in the field or laboratory conditions.

Innovation Workshop A specialized environment in which small groups of specialists work together in a highly choreographed and coordinated way. Through audio-visual stimulus and instructions, they create new options, possibilities or solutions using techniques of data review, role-playing, concepts generation, word-play, note-taking, visualization, and solution creation (among many others).

Kaizen (改善) Japanese for "improvement" or "change for the better", refers to the continuous improvement of processes in diverse organizational systems. It refers to activities that continually improve all functions, and involves all grades of personnel from the head of an organization to its frontline staff. It can also apply to processes such as purchasing and logistics that cross organizational boundaries to become part of an entire industry, supply chain, or national economy.

Planning A fusion of the individual psychological and cognitive process of imaginative forethought with the social and organizational process of arriving and agreeing to a plan. Planning is aided by having rich accurate data about the facts on the ground, insightful representations of that information in the form of maps, charts and other kinds of diagrams, and social organizational techniques which allow groups to organize their thought collectively.

See also: **Innovation Workshop**

"In preparing for battle I have always found that plans are useless, but planning is indispensable." -- Dwight D. 'Ike' Eisenhower

Service Design
"Service design is a design specialism that helps develop and deliver great services. Service design projects improve factors like ease of use, satisfaction, loyalty and efficiency right across areas such as environments, communications and products – and not forgetting the people who deliver the service."
-- Engine Service Design, <http://www.enginegroup.co.uk/service_design/>

State 1. A social organization capable of making war, peace and political alliances so as to enlarge the territory under its authority (Kautilya). 2. The ultimate expression of human rationality (Hegel) 3. That entity which holds a monopoly over legitimate violence (Weber). 4. The vector sum of all lines of power in a society (Foucault). 5. That institution which is ultimately and cumulatively responsible for the equity, upliftment and welfare of its members (Ambedkar).

Usability
"The design has been optimized for human usage with respect to task completion, speed, accuracy, self-evidency (minimized training requirement), satisfaction, and safety. This does not mean that every user will be able to operate the offering in a flawless way (or even avoid lethal mistakes). It means that care is taken to optimize the design so that the overall usage by the target population of users is effective."
--Schaffer, Eric M. and Susan Weinschenk. "Certified Usable Designs: Products, Applications and Web Sites." Human Factors International, 2010.

Use Case 1. The counterform of the product or service offering. 2. A narrative example that captures the specific instance in which a real or imagined product or service offers value or meaning to its user.

"A particular form or pattern or exemplar of usage, a scenario that begins with some user of the system initiating some transaction or sequence of interrelated events."
--Jacobson, Ivar (et al). *Object-Oriented Software Engineering: A Use Case Driven Approach.* Addison-Wesley, 1992.

User-Centered Approaches or strategies that focus on and proceed from an

understanding of the expectations and needs of the user of a product, service or technology, as distinct from the possibilities of technology, market forces, media, or any other set of social or organizational factors.

User Experience Design An approach to the design of things and environments which seeks to envision how their ultimate user might encounter and interact with that artifact or system; the purpose of the design is to have made possible a particular quality or character of experience for most if not all of those end-users.

Visualization The transformation of linguistic, textual, numeric or otherwise symbolic information into a diagram, map, or other form of graphic illustration so as to express or provoke a new kind of understanding of the same information.

User An individual agent or subjective self who uses linguistic, cultural, symbolic and material technologies to manipulate or navigate the world in which she finds herself.

Wicked Problem 1. A subclass of problems for which there is no ready-to-hand or off-the-shelf solution, but which can only be addressed through **Design** (with a capital 'D'). 2. All complex problems of state and society in which different stakeholders have radically different world views and divergent frames for understanding the problem, which moreover, may change over time. 3. Problems which have no definitive formulation, owing to which the definition of the problem turns out to be a **Wicked Problem**.

"*The search for scientific bases for confronting problems of social policy is bound to fail because of the nature of [wicked] problems...Policy problems cannot be definitively described. Moreover, in a pluralistic society there is nothing like the indisputable public good; there is no objective definition of equity; policies that respond to social problems cannot be meaningfully correct or false; and it makes no sense to talk about 'optimal solutions' to these problems...Even worse, there are no solutions in the sense of definitive answers.*"
--Rittel, H.W.J. "The Reasoning of Designers." Stuttgart: Institut fur Grundlagen der Planung, 1988