Perspectives on design creativity and innovation research - Advocating for a systemic view of innovation in company ecosystems (Chapter 2.5.3)

Bernard Yannou

▶ **To cite this version:**

Bernard Yannou. Perspectives on design creativity and innovation research - Advocating for a systemic view of innovation in company ecosystems (Chapter 2.5.3). International Journal of Design Creativity and Innovation, 2013, 1 (1), 2 p. 10.1080/21650349.2013.754657 . hal-00801595

HAL Id: hal-00801595
https://hal.science/hal-00801595

Submitted on 18 Mar 2013

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Contribution to IJDCI special issue on "*Perspectives on Design Creativity and Innovation Research*"

Advocating for a systemic view of innovation in company ecosystems

Bernard Yannou
Professor of Design & Industrial Engineering
Laboratoire Genie Industriel
Ecole Centrale Paris
Grande Voie des Vignes - 92290 Chatenay-Malabry, France
bernard.yannou@ecp.fr

One may and one must study design creativity and innovation from theoretical perspectives and carefully study cognitive aspects of it within the ideation process which is the heart of innovation process. But one must not forget realities of companies because they are the first beneficiaries of the practical perspectives: getting effective methods in companies to develop ever more innovative products and services.

But studying design creativity and innovation from practical perspectives for companies is not much developed today since many barriers make it uneasy. Indeed, in a company, there are many more influencing factors than in a controlled lab experiment, experiments are not repeatable, company executives do not tolerate non profitable experiments, designers are most of the time working on different projects at a time, and it is hard and time consuming to properly measure the effects of a creativity method or innovation theory (see a recent survey in [1]).

To do so, it requires a good understanding of the company ecosystem and its inner processes contributing to delivered innovations [2]. Second, it requires a rigorous design research methodology so as to provide effective design models, methods, platforms that are truly effective in the context of company [3].

Working in an Industrial Engineering laboratory, I advocate a more systemic vision of design creativity and innovation in company ecosystems [4]. I presently work with my team and colleagues to develop and make professional an innovation engineering to professionalize as much as possible, an innovation supply chain in companies (see also [5; 6]), i.e. to ensure a continuous production of innovations without "killing innovation" by framing too tight, organizing too much. But one must make possible to deliver a stream of innovations in accordance with the concerned disciplines in companies as well as with the layers of business processes that contribute to it. We are also at the crossing of several scientific disciplines that have their language, their methods of observation, production and model validation like design engineering, industrial engineering, strategic management of innovation projects, management of technologies, strategic marketing, business information systems, process modeling, accounting and market economy.

I hope this journal can be also the place to publish this type of research works.

[1] Cuisinier C., Vallet E., Bertoluci G., Attias D., Yannou B., "A renewed view of innovation - A statement of practices and organizational models in large companies" translated from "Un nouveau regard sur l'innovation - Un état des pratiques et des modèles organisationnels dans les grandes entreprises", Techniques de l'Ingénieur, ISBN 978-2-85059-130-3, Paris, 2012.

[2] Motte D., Yannou B., Bjärnemo R., "The specificities of radical innovation", Proceedings of ICoRD: 3rd International Conference on Research into Design, January 10-12, Bangalore, India, 2011.

[3] Yannou B., Petiot J.-F., "A View of Design (and JMD): The French Perspective", Journal of Mechanical Design, vol. 133(5 (june 2011)), 2011.

[4] Yannou B., Jankovic M., Leroy Y., "Empirical verifications of some Radical Innovation Design principles onto the quality of innovative designs", Proceedings of ICED 2011, Copenhagen, Denmark, 2011.

[5] Rianantsoa N., Yannou B., Redon R., "Steering the value creation in an airplane design project from the business strategies to the architectural concepts", Proceedings of ICED 2011, Copenhagen, Denmark, 2011.

[6] Zimmer B., Yannou B., Stal Le Cardinal J., "Proposal of radical innovation project selection model based on proofs of value, innovation and concept", Proceedings of International Design Conference - Design 2012, May 21-24, Dubrovnik, Croatia, 2012.