Open Senior Service Innovation Integrating senior citizens into new product development to improve your firm's capability for innovation

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A critical task in new product development (NPD) is to define a new product concept amidst customer & technology uncertainty

- Product definition critical to new product success (Cooper 1993; Krishnan & Bhattacharya 2002), but challenged by customer and technology uncertainty
- User satisfaction (adoption) increases with degree of fit between users' needs and characteristics of product (e.g., Ulrich & Eppinger 2004).
- Conventional approach: Manufacturer tries to understand causal network with detailed information via market research
- Despite all of today's methodological advances in market research, many companies still fail to gather this input in an efficient and effective way (Tollin 2002; Burke 1996), NPD flop rates continue to rise



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Previous research has identified several causes for flops:

- Customers face an inherent difficulty in accurately specifying their needs: Stickyness of need information (von Hippel 1994, 1998; Szulanski, 2003)
- Exploding heterogeneity of demand (Piller 1997, 2006; Zuboff & Maxim 2002) is increasing challenge. Silver Markets and requirements of older consumers are adding a level of complexity in understanding what customers (really) want.

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The Hollywood movie "Big" reminds us of this challenge. Only when the user is the product creator, successful products will arrive.



- In the movie, Tom Hanks is playing a small boy,
 Josh Baskin, who wants to grow up.
- Josh Baskin goes to a wish/fortune-telling machine and wishes that he were "big". The next morning, he sees a face in the mirror he does not recognize. Overnight, he has become a 30-year-old man.
- After some trouble caused by the actions of a 11year-old behaving like a child, but looking 30, Josh gets a lowly data-entry job at the MacMillan Toy Company in New York.
 - In a memorable scene, he meets the company's owner, checking out the products at a toy store, and impresses him with his childlike enthusiasm.
- This earns Josh a promotion to a dream job for a kid: testing toys all day long and getting paid for it. With his insight into what to sell to children, he quickly rises up the corporate ranks.
- He is product creator and user in the same person, hence not "lost in translation" (i.e., facing problem of transferring sticky information).



Our idea: "Open Senior Innovation": A new approach to reduce the NPD risk and increase NPD efficiency

- Objective: To develop a method which enables senior citizens to directly transfer their needs into an artifact that highly corresponds with their needs. This means to shift some specifications of the product into the domain of the user.
- The idea is to isolate the source of uncertainty, i.e. sticky information about user needs, and to place it entirely outside the boundary of the manufacturer. This is a fundamental break with the current understanding of the innovation process (Piller & von Hippel, 2007).
- The idea is not to try to understand what older consumers may think and want, but to enable them to co-design exactly what they want.
- Open Senior (Service) Innovation Platform: Provide platform and supporting infrastructure so that senior consumers can participate in defining fitting products for their needs, but also in solving technological problems along the innovation process.





The concept of open innovation acknowledges that important inputs for the innovation process come from outside the firm.

•Open Innovation: Bringing (a stage of) the innovation process to an <u>undefined (and generally large) network of people</u> in the form of an <u>open call</u>. Solving the problem can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals (Piller 2003, Reichwald & Piller 2008 building on Benkler 2002).

Open innovation starts at two levels:

Providing better access to need information about the customers' preferences.

Providing better access to solution information how to transfer this need into a new product or a new service.



Every innovation process requires two kinds of information, influencing the efficiency and effectiveness of the process.



Methods for Open Innovation can be structured around their capability to access need of solution information.

Methods of open innovation to gather <u>need information</u> include the lead user method, idea contests, and screening if communities.

BMW has developed successful new mobility services by integrating its customers deeply in the innovation process.

Design Critique Your Reaction to Bad Design

Pro Challenges Your Opportunity to Co-Create

Co-Design Toolkit in Use-Stage

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Methods of open innovation to gather solution information include Lead Experts and Broadcasting of Problems (Crowdsourcing)

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Innocentive has found a very efficient way to solve technical problems by integrating external experts.

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Context:

- 1. R&D Labs inside of major multinationals are not able to solve certain scientific problems. Their own internal and external experts cannot obtain solutions.
- 2. Hope to get solution by going to distributed network of scientists that they do not know who may have an answer.

Research by Karim Lakhani (HBS) shows that Innocentive has a VERY efficient mechanism for technical problem solving.

Context for posting problems

Firms spent **6 months to 2 years** trying to solve problems internally Offer on average \$30,000 for solution Solutions need to be submitted within ~6 months of initial posting

49 problems (29.5%) that had not been solved internally were solved (n=166)!

Participation of external problem solvers shows an striking pattern:
In average, 240 individuals examined the detailed problem statement.
In average, 10 solution submissions per problem were submitted.
Winning solvers spent in average only ~74 hours to solve problem non-winning solvers 36 hours.

Winning solvers **leverage preexisting knowledge** (72.5% reuse) Interest diversity and solver specialization attracted helps to solve problems.

A large group of solvers are **older researchers in retirement**. Open innovation provides an efficient way to tap into sunken knowledge source.

Nine Sigma is another website that provides access to external problem solvers --- again many of them retirees.

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A dedicated platform for open innovation for products and services for the Silver Market shall utilize the capabilities of open innovation as demonstrated before.

Open Senior (Service & Product) Platform shall combine both methods to access need information and methods to utilize distributed solution information.

Open innovation starts Users at two levels: Providing better Firm access to **need** Partners information about the customers' OSSI preferences. Community Providing better access to solution Web information how to Problem transfer this need into a Solvers new product or a new service.

Such a platform promises a broad set of benefits and advantages – their realization however still has not been shown.

- Overcoming the sticky information problem of accessing need information.
- Providing direct access of older users to manufacturers and service providers (firm partners).
 - Initiation to innovation project can be user community, but also firm.
 - Idea can be generated
- Utilizing resources of experienced contributors with heterogeneous set of experiences.
 - Transfer of idea of offline senior expert networks.
 - Utilization of large untapped labor source (scaling attempts on corporate level).
- Special requirements of designing platform w/r to usability and incentive structure.
- Special focus on service development.

Objective of project is to perform a feasibility study to build understanding of technological and economic constraints and principles of senior innovation platforms.

Main objectives of project:

- (1) **Create proof of feasibility** for internet platforms for open senior (service) innovation
- (2) Understand technical and economic principles.
- (3) Build an **exploratory prototype** of platform and pilot it.
- (4) Generate **business model** how to operate platform sustainable.

(5) Establish an **international research network** of scholars and companies working in the field to explore the platform.

We are happy to cooperate with you and get your feedback

Mass Customization & Open Innovation News

Notes and ideas on mass customization, personalization, customer integration, and open innovation -- strategies of value co-creation between suppliers and customers. This blog continues a long running newsletter, published and edited by Frank Piller, RWTH / MIT, since 1997.

EVENTS

The MCPC 2007 has been THE event of the international mass customization community-- The conference is over, but still you can order the conference proceedings.

[More]

Upcoming MCP Events & Calls for Papers: <u>List of focused MC</u> <u>events and conferences in</u> <u>2008</u>

CONFIGURATOR DATABASE

The largest <u>database of</u> configuration toolkits.

pureinsight

Frank Piller's mass customization Web Seminar Series 60 minute, live, interactive expert seminars directly to your desktop.

Webinar Downloads: (1) <u>My</u> <u>executive briefing in mass</u> <u>customization</u> and (2) <u>A trend</u> <u>report on user co-creation and</u> user manufacturing. <u>« Innovation Excellence - Conference in Vienna features open innovation and more | Main | Seminar in Sweden:</u> Mass Customization & Innovation in Fashion Retaing »

User-led innovation: New report suggests a framework to structure forms of interactive value creation

strong>"<u>User-led Innovation</u>: A New Framework for Understanding Business and Social Value" is a new report published by the <u>Smart Internet Technology Research Group</u> in Australia.

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The report reveals some of the major drivers of user-led innovation and explores how it is affecting organizations' relationships with key stakeholders. It investigates how user-led practices generate business and social value through a major case study of the virtual world Second Life.

A first nart by Darren Sharn presents a comprehensive analysis of the structural

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"Widespread convergence of participatory culture, DIY media, collaboration and open exchange, along with decreasing processor, bandwidth and storage costs, have all driven the development of user-led practices across a range of disparate fields. This is leading to the emergence of a post-industrial innovation system that brings with it new production processes, content models, service platforms and licensing agreements.

In contrast to various forms of market-based transactions, user-led practices encompass their own distinctive value systems, motivations and principles governing cooperative forms of social exchange.

This report identifies four 'user-led niches' which have become

<u>Manutacturing, Mass</u>

<u>Customization, and How a</u> <u>New Infrastructure is Providing</u> <u>New Opportunities for SMEs</u>

Ponoko: Design Contest and Latest Press on User Manufacturing Enabler Ponoko

<u>Seminar in Sweden: Mass</u> <u>Customization & Innovation in</u> <u>Fashion Retaling</u>

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