



PETER PRIBILLA FOUNDATION



TUM-RESEARCH EXCELLENCE AWARD 2008

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TO

KARIM R. LAKHANI

FOR

HIS OUTSTANDING
CONTRIBUTIONS IN THE FIELD OF
INNOVATION AND LEADERSHIP

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Winner of the TUM-Research Excellence Award 2008

Name: Karim R. Lakhani, Ph.D.
Faculty: Technology and Operations Management Unit
Harvard Business School
Title: Broadcast Search in Problem Solving: Attracting
Solutions from the Periphery



Abstract:

The purpose of this study is to explore an alternative mechanism of problem solving that focuses on broadcasting problems to diverse and peripheral problem solvers, what I call broadcast search. Broadcasting problems is a radical departure from traditional problem solving as it involves problem holders engaging in as little problem-solving as possible - instead they attempt to interest a heterogeneous set of *external* actors in creating solutions to internal problems. Analysis of 166 previously unsolved science problems, originating from the R&D labs of 26 firms, resulted in a 29.5% resolution rate via broadcast search. The probability of a problem being solved was significantly correlated with the heterogeneity in the scientific interests of the solvers submitting solutions and their relative specialization. Broadcast search also appears to be an economically efficient problem solving mechanism. It involves low costs for solution seekers relative to the costs of internal R&D. Most of the solvers based their submissions, partially or fully, on previously developed solutions from their own and/or someone else's work, implying an efficient re-use and transformation of existing knowledge and solutions. The probability of creating a winning solution by a solver was significantly correlated with intrinsic motivations and bridging knowledge fields.

Academic Vita:

- Harvard University, *Harvard Business School*
- 2006 –
 - Assistant Professor, Technology and Operations Management Unit
 - Faculty Fellow, Berkman Center for Internet and Society, Harvard Law School
 - 2007 –
 - 2008 –
 - Richard Hodgson Fellow, Harvard Business School
- Massachusetts Institute of Technology, *Sloan School of Management*
- 2005 – 2006
 - Lecturer, Technology, Innovation and Entrepreneurship Group

Recent Publications in the Field / Work in Progress:

The principles of distributed innovation (with Jill Panetta)

Managing open and collaborative innovation (with Paul Carlile)

Broadcast search and solution attraction in distributed problem solving (with Lars Bo Jeppesen)

Incentives versus Diversity: Re-examining the competition-innovation link (with Kevin Boudreau and Nicola Lacetera)

The primacy of the periphery in distributed innovation