Agenda Item 4

Innovative Approaches to Technology Transfer and Collaborative Research – Dr. Ben Shneiderman

BOARD OF REGENTS

SUMMARY OF ITEM FOR ACTION
INFORMATION OR DISCUSSION

TOPIC: Innovative Approaches to Technology Transfer and Collaborative Research – Dr. Ben Shneiderman (information item)

COMMITTEE: Economic Development and Technology Commercialization

DATE OF COMMITTEE MEETING: January 28, 2016

SUMMARY: Dr. Ben Shneiderman will discuss guiding principles and strategies to nurture collaborations and catalyze innovation. He will also present the ideas in his forthcoming book that explore the multiplicative impact of collaborations and organizational partnerships as well as how contemporary research teams get a further boost from fresh ways of using the Web, social media, and visual communications tools that amplify collaborations.

Dr. Shneiderman is a Distinguished University Professor in the Department of Computer at the University of Maryland, College Park and the Founding Director of the Human-Computer Interaction Laboratory.

ALTERNATIVE(S): This item is for information purposes.

FISCAL IMPACT: This item is for information purposes.

CHANCELLOR'S RECOMMENDATION: This item is for information purposes.

COMMITTEE RECOMMENDATION:	DATE:
BOARD ACTION:	DATE:
SUBMITTED BY: Joseph F. Vivona (301) 445-2783	

Committee on Economic Development and Technology Commercialization

Innovative Approaches to Technology Transfer and Collaborative Research – Dr. Ben Shneiderman

January 28, 2016

The New ABCs of Research

Ben Shneiderman **ben@cs.umd.edu @benbendc**

Distinguished University Professor,
Dept of Computer Science
Founding Director (1983-2000),
Human-Computer Interaction Lab
Member, Institute for Advanced Computer Studies

Photo: BK Adams

UNIVERSITY OF MARYLAND

The New ABCs of Research (Oxford, 2016)

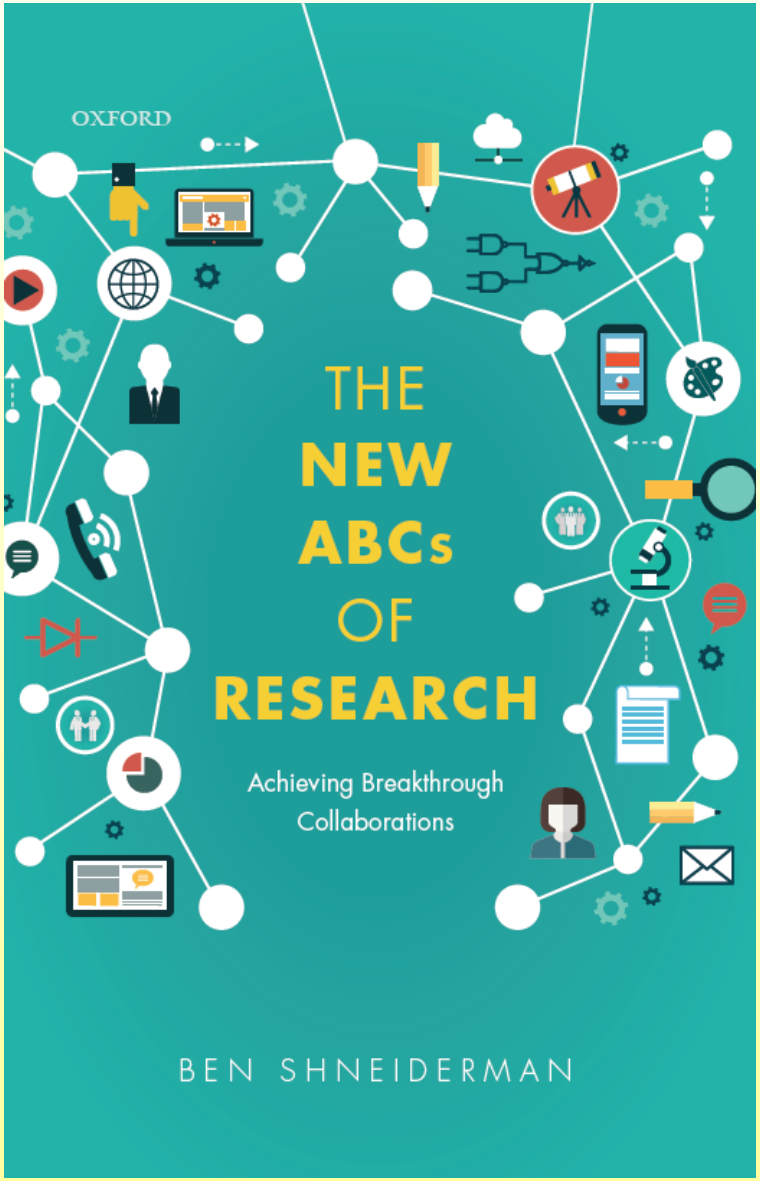
Guide for

- Junior researchers

Manifesto for

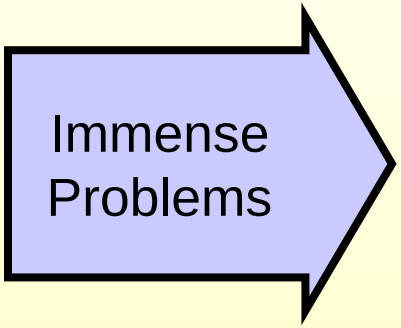
- Senior researchers
- Academic administrators
- Business leaders
- Funding agencies

www.cs.umd.edu/hcil/newabcs



The New ABCs of Research

Context	Guiding Principles	Lifecycle Strategies	New Knowledge



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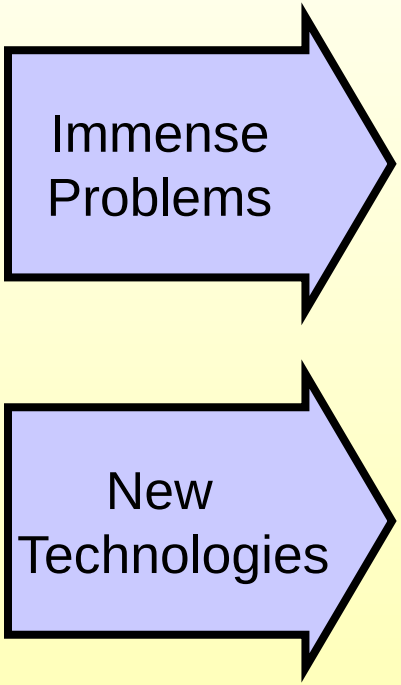


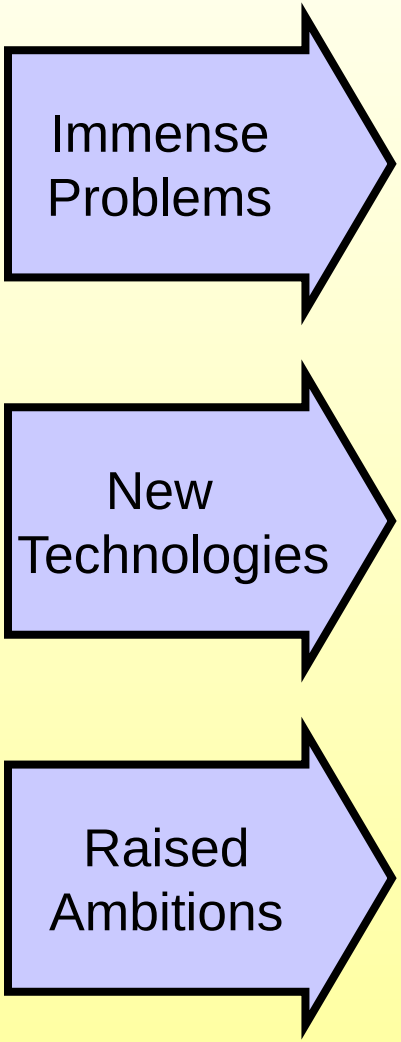
The New ABCs of Research

Context

Guiding Principles

Lifecycle Strategies

New Knowledge



ABC Principle

Applied & **B**asic **C**ombined

Combining applied with basic research produces more rapid progress in both

SED Principle

Blending
Science, **E**ngineering & **D**esign
produces higher-impact research

The New ABCs of Research

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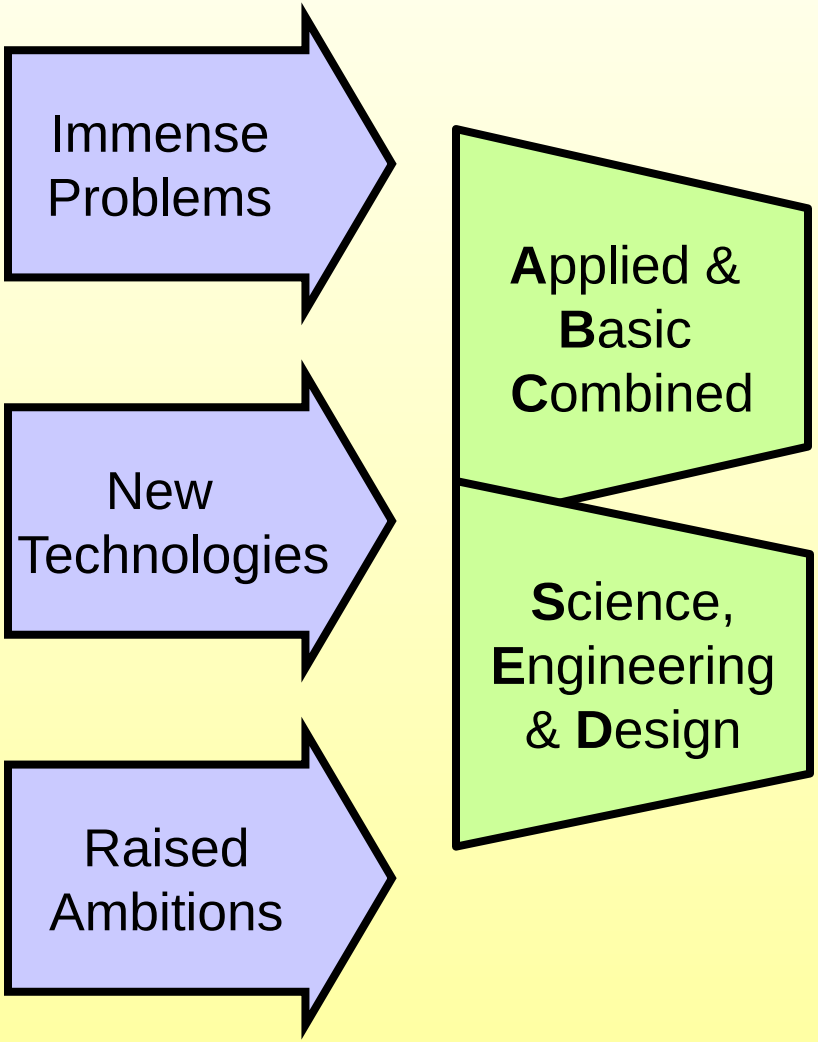

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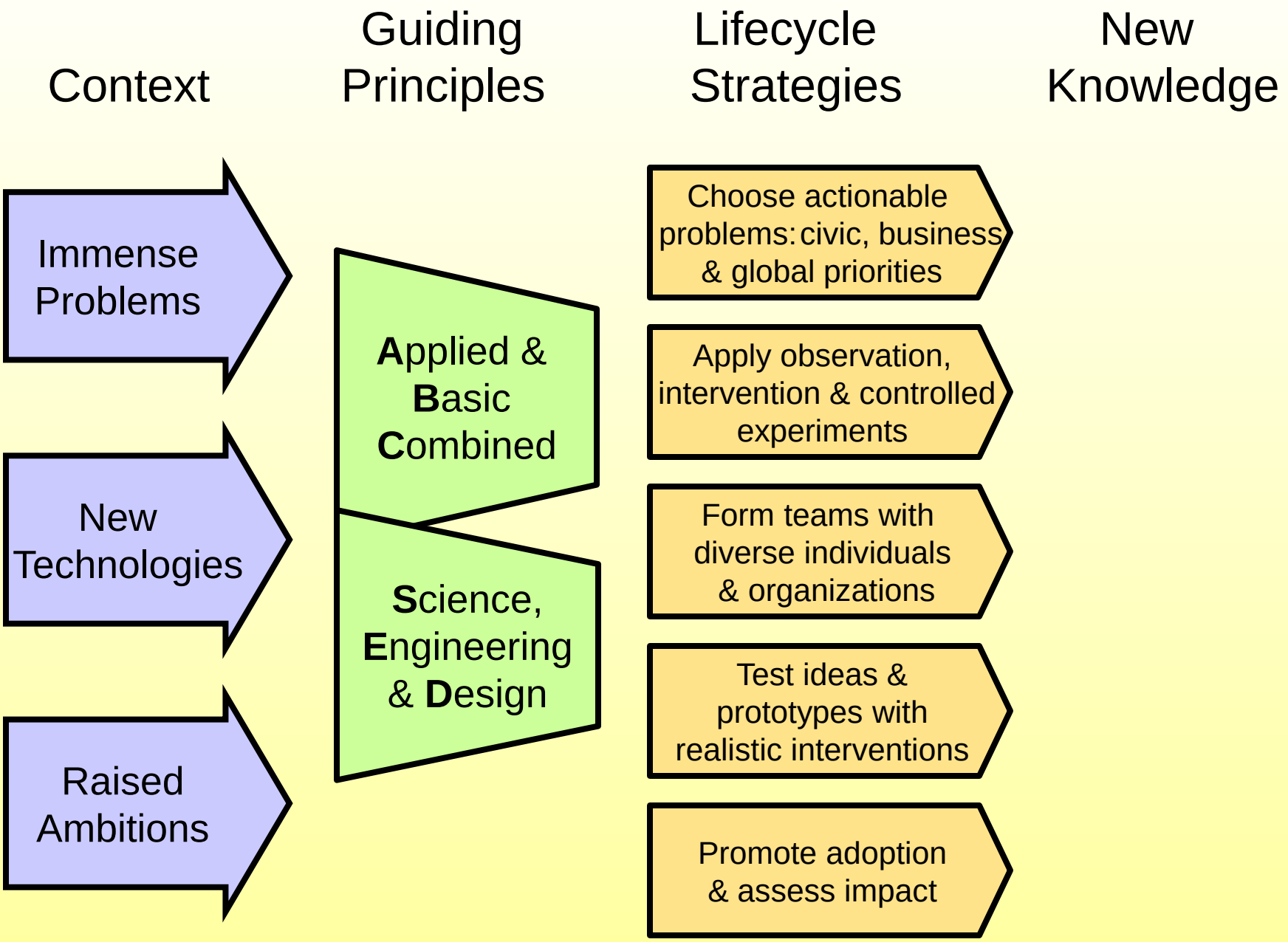

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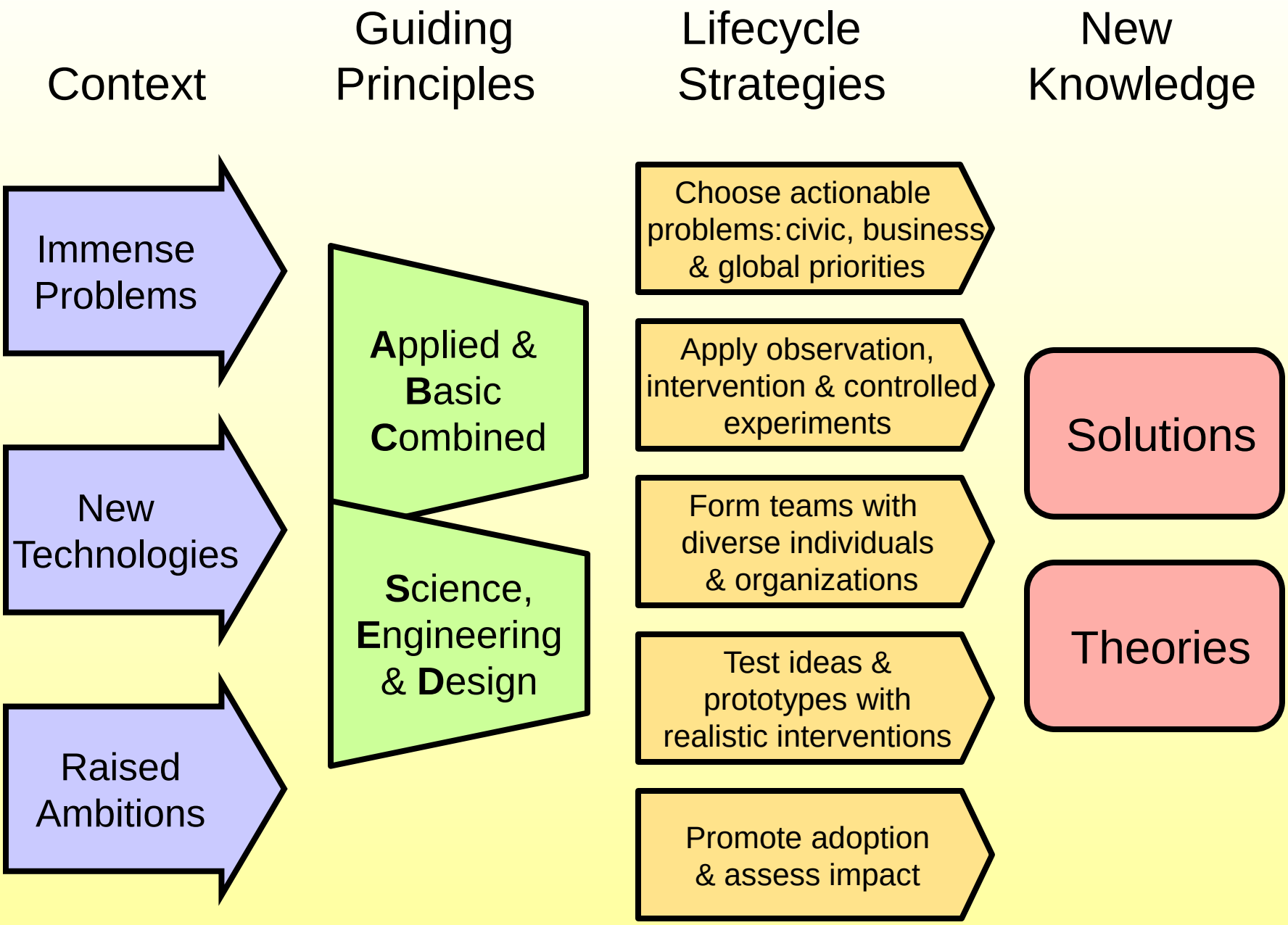

The New ABCs of Research (Oxford, 2016)

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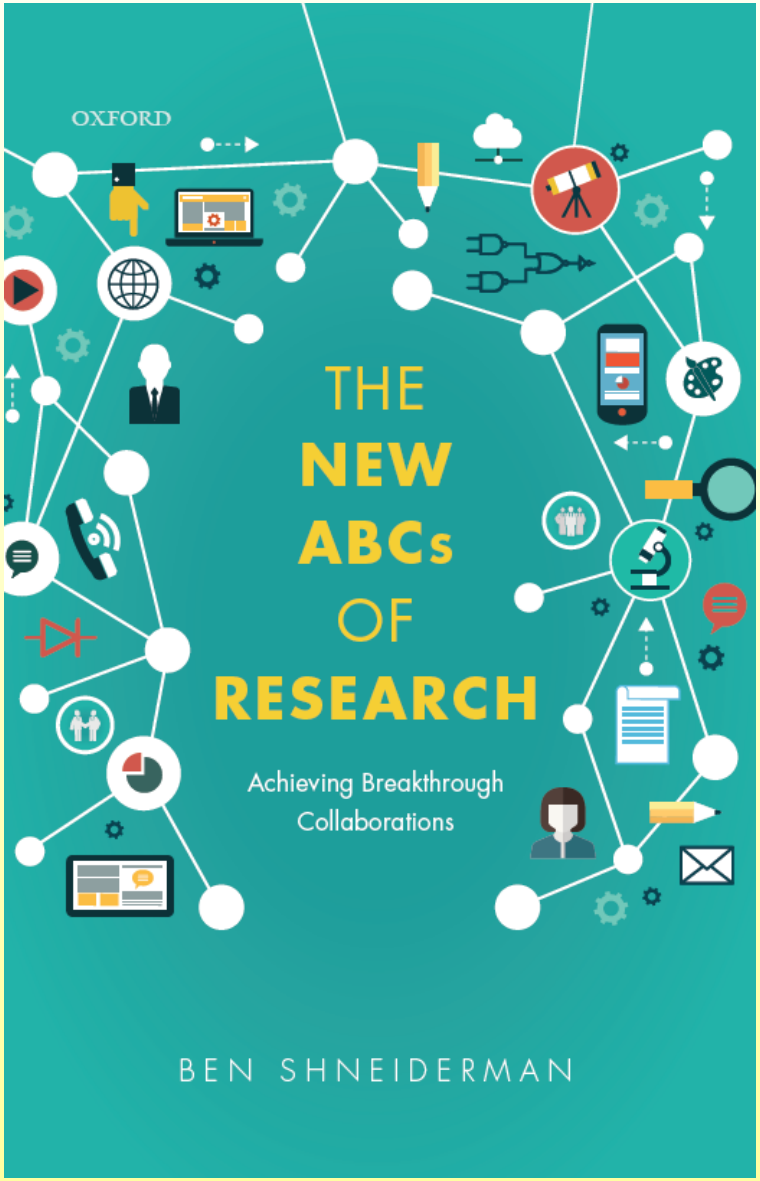

Forthcoming from Oxford University Press

The New ABCs of Research

Achieving Breakthrough Collaborations

Ben Shneiderman

"It's excellent... a critically important research manifesto in the spirit of Vannevars Bush's (1945) Science: The Endless Frontier."
—Rita Colwell, Director, U.S. National Science Foundation (1998-2004)

"This is a must-read book for those of us that want to create radical innovations and breakthrough scientific advances to solve the 'wicked' problems surrounding us in the 21st Century."
—John Seely Brown, Former Chief Scientist, Xerox Corporation and Director of its Palo Alto Research Center (Xerox PARC)

"I absolutely love it all! *The New ABCs of Research* captures, catalogues and advocates for exactly what we need to be doing in research and scholarship at a major research university. It beautifully describes the combination of basic, interdisciplinary, and translational research with partners that is so powerful and so needed."
—Mary Ann Rankin, Provost, University of Maryland

The problems of the 21st century require innovative thinking from students, academics, business researchers, or government policy makers. Hopes for improving our healthcare, food supply, community safety, and environmental sustainability depend on the pervasive application of research solutions.

The research heroes who take on the immense problems of our time face bigger than ever challenges, but if they adopt potent guiding principles and effective research lifecycle strategies, they can produce the advances that will enhance the lives of many people. These inspirational research leaders will break free from traditional thinking, disciplinary boundaries, and narrow aspirations. They will be bold innovators and engaged collaborators, who are ready to lead, yet open to new ideas; and they will be self-confident, yet empathetic to others.

In this book, Ben Shneiderman recognizes the unbounded nature of human creativity, the multiplicative power of teamwork, and the catalytic effects of innovation. He reports on the growing number of initiatives to promote more integrated approaches to research so as to promote the expansion of these efforts. It is meant as a guide to students and junior researchers, as well as a manifesto for senior researchers and policy makers, challenging widely-held beliefs about how applied innovations evolve and how basic breakthroughs are made, and to help plotting the course toward tomorrow's great advancements.

BEN SHNEIDERMAN is a Distinguished University Professor in the Department of Computer Science and Founding Director (1983-2000) of the Human-Computer Interaction Laboratory at the University of Maryland.

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