

BIGGER, FASTER INNOVATION · TRANSFORMATIVE, HUMAN CENTERED, FAST CYCLE, HYPOTHESIS DRIVEN

BETTER INNOVATION MEASURES · BEHAVIORAL SCIENCE FOR INNOVATION

STRONGER INNOVATORS · MS INTEGRATED DESIGN + BS ENGINEERING

Universities
Brands



Northwestern University



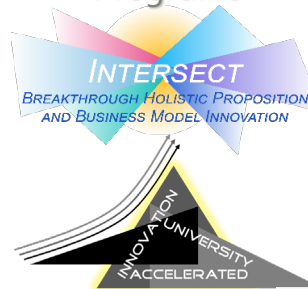
NANYANG TECHNOLOGICAL UNIVERSITY



SegalDesignInstitute



Programs



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The three primary influences on my approach to innovation

- 1) Innovating in a tough environment...** **35 years** of successful product design, brand building, innovation strategy and capability-building at Procter & Gamble, tested in the crucible of the global market.
- 2) ...as a Products Researcher...** *Products Research* is the unique 95-year-old P&G practice, role & culture of *rigorous human-centered innovation*. Products Researchers integrate across *consumer, business and scientific domains* to create winning innovation strategies & programs.
- 3) ...while integrating the best of academic teaching, research and practices of human-centered innovation.** Collaborating with leading universities on design, behavioral science and entrepreneurship, building new curriculum, teaching as *Innovator in Residence* at Northwestern, and integrating this knowledge into new programs at P&G.

The Three Big Challenges

 I completed my 35-year P&G career on Dec. 31st, 2017. In my last few years, I focused on the three most critical innovation challenges as I saw them: **Bigger, Faster Innovation**, **Stronger Innovators**, and **Better Innovation Measures**. To help solve these persistent dilemmas, I crafted several new global programs with C suite and Sr. VP sponsorship and synergized the new programs with existing org structures and innovation processes, thereby enabling more successful innovation.

The three new programs were *University-accelerated Innovation*, *Behavioral Science for Innovation*, and *Intersect Innovation Sprints*, each a pivot in approach designed to break us out of our current under-

performing paradigms. Smartly applied in key upstream innovation domains, these programs have created a renewed and re-energized innovation culture, more engaged and inspired teams, and much faster results with significantly bigger business potential.

Bigger, Faster Innovation

+ **Created and scaled the *Intersect Innovation Framework***. Starting with University partners at Northwestern, I created curriculum and taught the ***Intersect CPG graduate course*** focused on breakthrough business models and holistic propositions. *Intersect* uses a unique combination of Design Thinking, LEAN Innovation, Behavioral Science and the rich P&G history of consumer-centric brand and product creation. *Intersect* teams bring together graduate students from the Kellogg School of Management, McCormick School of Engineering, and Medill School of Journalism in a rigorous project-based course that ***provides a superior educational experience and accelerates 10 P&G-funded upstream projects each year*** in 10-week sprints. Craig Sampson, my partner in year one and founder of Ideo's Chicago office, continues to co-teach *Intersect* at Northwestern. The course is popular and selective, accepting ~30% of applicants.

Inside P&G, *Intersect* is sponsored at the Sr. VP level and is applied to the most advanced technology and new business programs in 5-10 week sprints with multi-disciplined teams from Products Research (the integrators), R&D, Finance, Design and Marketing, providing holistic consumer and business on-ramps for faster commercialization.

Intersect creates new business models and compelling consumer experiences more rapidly and effectively than previous

approaches. Multiple propositions with >\$B potential have emerged, and superior innovation talent has been identified.

Better Innovation Measures

+ **Created a multi-\$M portfolio of advanced behavioral-science research for product and brand experience innovation** with the ***Bio-Social Methods Collaborative*** at University of Michigan (Dr. Richard Gonzalez) and the ***DEON Lab*** at Nanyang Technological University in Singapore (Dr. George Christopoulos). CTO sponsorship. Behavioral measures are much more effective at guiding innovation than traditional market research measures for many reasons, including access to unarticulated cognition and emotion. This multi-year research pipeline is breaking new ground, linking design and innovation parameters to key consumer behaviors like product choice and market adoption of new value scenarios.

Stronger, Integrative Innovators

+ **Enhancing the talent pool with a new *Integrated Product Design Engineer* hiring position** that targets a T-shaped skill set covering consumer, business and technology (or *Humanist, Technologist, Capitalist* as Dr. Dev Patnaik says). Technical depth comes from exemplary performance in an *undergraduate* engineering program combined with integrative breadth via an MS in Human Centered Design from one of a few carefully vetted *graduate* programs. These BS Eng + MS Design hires perform at a level of skill and contribution that is 5+ years out the performance curve with more rapid progress to mastery than traditional hires.





This 2015 UM visit to P&G Home Labs in Cincinnati led to...



... creation of the UM Home Lab in Ann Arbor, which opened in 2017. Here P&G CTO Kathy Fish visits during the grand opening.

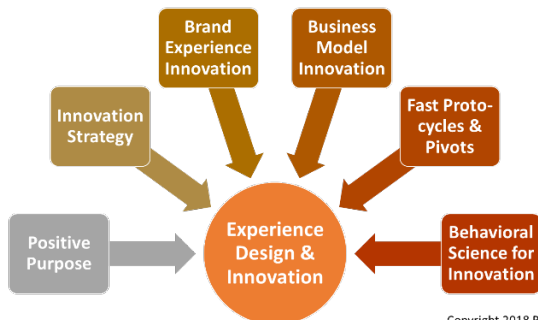
Contemporary Innovation Frameworks

I've consolidated all this learning into a series of practical, effective, modern frameworks that emphasize rapid hypothesis testing, discovery and action vs. declaration and extended debate. These frameworks have evolved over numerous cycles of industrial and academic application, guiding innovation programs from the organizational strategy level all the way down to fast cycle prototyping, human testing and individual experimental design.

attitudinal measures in human research; creating our first home lab for in-context research, which has now expanded to a network of 17 in-context consumer research labs worldwide; leading the global R&D knowledge management effort; co-creating a strategic innovation service with Your Encore utilizing retired Products Research masters; as well as creating many patented products, services and technologies, with 40+ patents issued globally..

I'm often asked how the credentials of those of us who have done most of our life's work in industry might map to academia. Here is how I see it: First, most of our publications and research equivalent to that of advanced degree theses are internal to our organizations, and therefore confidential. However, in terms of blocks of my work that were roughly equivalent to Doctoral and Post Doc work, I would say there were several, some of which are illustrated by granted patents. Here, the "peer review" is in the form of *patent examination*, a very challenging and competitive type of review. Work that leads to granted patents must meet robust criteria of being *unique (new knowledge)*, *un-obvious* and *have utility*. Of course, more inventions are held as trade secrets than are patented, so patents provide a limited view of publication-quality work.

Contemporary Innovation Frameworks



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Experience Design is the output, i.e., how **the humans we serve** individually and cumulatively **experience the things we create** - products, services, brands, categories, systems, institutions, businesses, communities - which ultimately drives adoption and market success. Learning and choices in any one framework influence learning and choices in the others, such that the output is optimized for all concerned, and the world is improved.

in addition, I've been a visiting lecturer in Human Centered Design at University of Michigan, Nanyang Technological University, and Carnegie Mellon University.

I hosted an *Integrated Design Thought Leader Summit* in 2017 to expressly join the best of the existing innovation frameworks into an evolved, thoroughly modern paradigm, while identifying opportunities to strengthen each institution's offerings. Attendees included the heads of several leading Integrated Design graduate programs: Carnegie Mellon University (Integrated Innovation Institute), University of Michigan (Design Science), Northwestern University (Segal Design Institute), Penn State (Product Design). Invitees who could not attend but with whom I've connected individually include DELFT in the Netherlands as well as SUTD in Singapore.

Academic Roles

Northwestern University, Segal Design Institute Innovator in Residence (2015/16), MS Engineering Design Innovation Advisory Board Member (2010 to present), and Adjunct Professor, creating and teaching new graduate courses including lead faculty for Intersect CPG and contributor to Leadership through Design Innovation MOOC. In

In terms of "faculty and administration" credentials, one might think of my role co-leading the global Products Research community as similar to being appointed vice provost of innovation capability. Founding P&G's Biometrics Institute and leading the advanced behavioral science effort roughly equates to being Director of a sizable research institute with many respected academic and industry collaborators.

Past Roles at P&G

These include many challenging, non-traditional leadership positions: Co-leading our global Products Research community of practice (1500+ enrollment); founding the P&G Biometrics Institute focused on advanced behavioral science for innovation, then creating and scaling faster, more effective behavioral methods to replace existing

Looking Forward

My wife Kate and I plan to 1) enhance the paradigm and practice of rigorous human centered innovation, 2) create game changing innovation by strengthening collaborations between universities, governments, NGOs & industries, and 3) help inspire a new generation of innovators. The world will be a bit better place, and lots of fun will be had along the way!