Individualizing Big Data
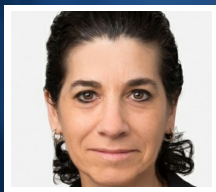
Deborah Estrin
Professor Healthcare Policy and Research Professor Computer Science Co-Founder
http://openmhealth.org

CURRENT RESEARCH

How Small Data Footprints will Transform our World

Small data is to individuals what Big Data is to institutions. Today our digital traces are amalgamated by commercial and governmental institutions in what we commonly think of as Big Data practices-Big Data in this sense is the domain of big institutions. The Small Data Lab explores new techniques for individuals to harness their own disparate sources of small data: the myriad of information we each generate implicitly about ourselves across our cellphone mobility patterns and call data records, search and click-through histories online, our personal shopping cart histories on and offline, the language patterns in our texts and tweets, and the games and media we consume. The goal is to enable individuals to be at the center of their own personal data universes and to stimulate a new ecosystem of apps and services that can create insightful, actionable, and at times, delightful value.

The Small Data Lab at Cornell Tech explores the systems, data, and human-computer interaction challenges around small data. How to design applications and services that interweave and make sense of multiple, diverse, noisy data-streams? How to enable apps that do not require us to warehouse every single grain of personal information, by intentionally generating systems that create and share higher-order summaries of individual relevant behaviors. Exploring these questions through iterative design, implementation, and evaluation of small data applications is Dr. Deborah Estrin's pathway to understanding the capabilities and limitations of current algorithms and architectures, while also opening up new areas of research in systems design, machine learning, and behavioral economics.

Three example ongoing...

Read More at benefunder.com/

AFFILIATION

Cornell University

EDUCATION

- Ph.D. in Computer Science 1985, Massachusetts Institute of Technology
- M.S. in Computer Science 1982, Massachusetts Institute of Technology
- B.S. in Electrical Engineering and Computer Science 1980, University of California, Berkeley

AWARDS

- ACM-W Athena Lecturer
- WITI Hall of Fame
- Anita Borg Institute
- Doctor Honoris Causa from EPFL, Uppsala University
- Elected into National Academy of Engineering

RESEARCH AREAS

Technology, Informational Sciences / Internet, IOT, Devices, Data, IOT, Devices, Data

FUNDING REQUEST

Your contributions will support the research of Dr. Estrin as she continues to develop new personal data applications and software for individuals to access and understand the small data traces they generate daily therefore leading to unprecedented ways to chart, understand, and relay the factors that impact our health, mood, and relationships. In this way, she is giving the once subjective and selective memory a factual basis to allow providers and individuals to tailor treatments achieve maximum health.