The need for predictive analytic governance

What's Even Creek Facebook, Cambridge Analytica and data A Future as Creepy as You Feared

Amazon and other tech giants have made devices connected to the internet increasingly prevalent. Now is the time to be freaking out about the dangers, our columnist writes.

By Jorda

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Vacuuming Up **And It Could**

ta brokers are predicting your health

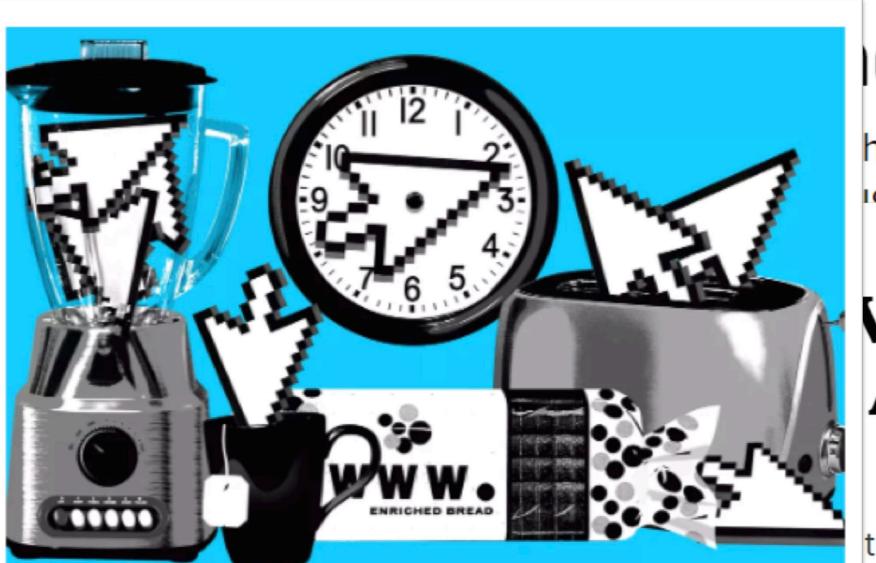
costs based on data about things like race, marital status, how much TV you watch, whether you pay your bills on time or even buy plus-size clothing.

61 Marshall Allen, July 17, 5 a.m. EDT

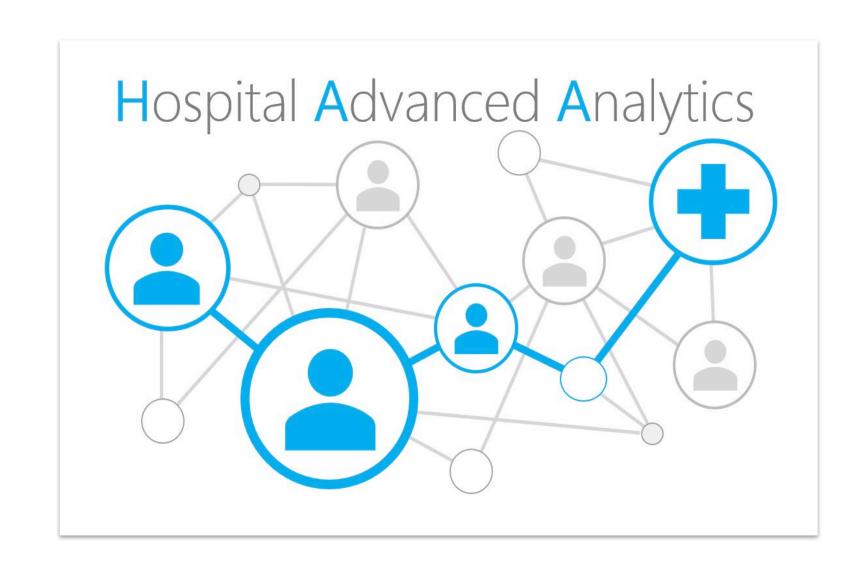


Steve Dent, @stevetdent 06.01.18 in Robots





Ensuring predictive analytics coordination and integration



Key stakeholders:

Hospital Executive Leadership

Regional Directors

Hospital Operations

Hospital Quality

Hospital Performance

KP HealthConnect Leadership

Internal Analytics Consulting

Division of Research



The lifecycle of a predictive model

Assessment Landscape survey Buy versus build **Prioritization** High-value targets Modifiable outcomes **Development** Technical implementation Calibration/customization Internal validation **Evaluation** Outcomes assessment **Deployment** Balancing measures Playbook development Model maintenance Workflow alignment End-user interface



Case example: Advance Alert Monitor

A predictive model to reduce adverse hospital outcomes

Meet Roger...

- 60 years old, with diabetes and COPD
- ED Chief Complaint: Confusion, Back Pain
- Temp 101°
- Lactate: 2.7
- Repeat lactate normalized
- Admitted to telemetry with disorientation, otherwise stable.



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Roger's Hospital Course – 4 years ago

- Overnight: Roger is "stable" on telemetry
- <u>8 am</u>: Unchanged from yesterday?
- 3 pm: Code Blue called to Roger's hospital room
 - CPR in progress
 - Cathy, Roger's wife, is at the bedside
 - Roger's goals of care are quickly discussed during CPR
- 3:47 pm: CPR continues until Roger is pronounced dead



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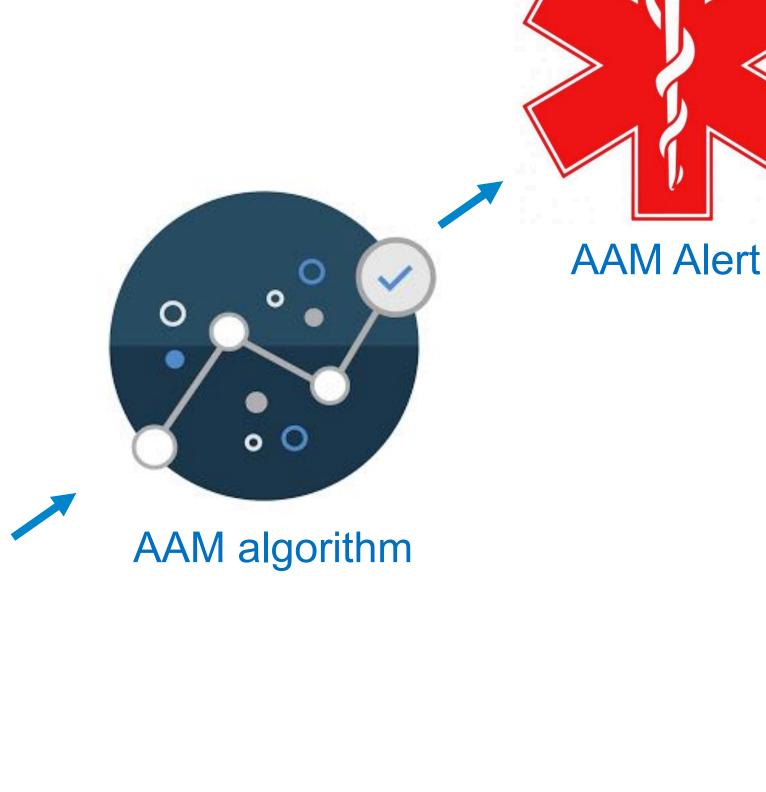


Principles guiding the development of Advanced Alert Monitor

Patient-centered and clinician-aligned prioritization

Principles for AAM development:

- 1. Identify the highest-risk inpatients
- 2. Respect patients' goals of care
- 3. Give clinicians enough time for action
- 4. Minimize false alarms for busy clinicians









Overview: Path to Implementation of AAM across 21 KPNC hospitals

Building a clinical program by redesigning workflows, teams, and technology

