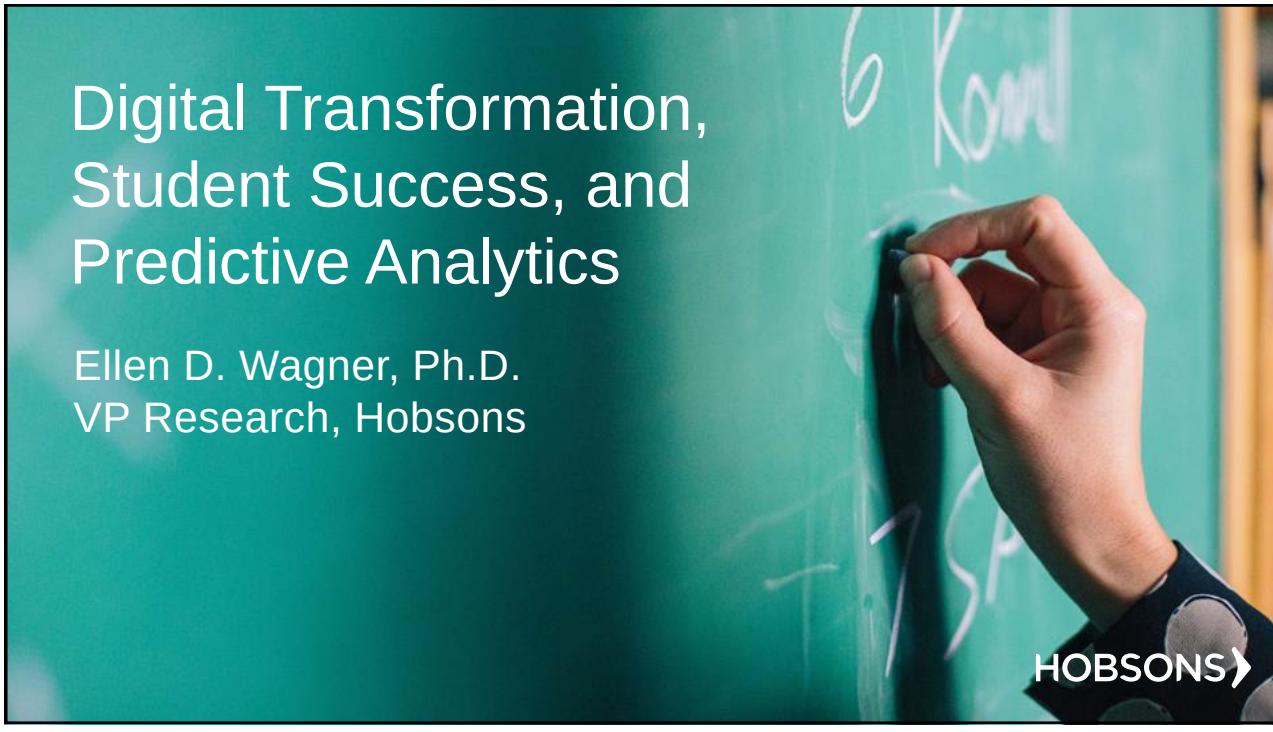


Common Definitions for Today

Data is information, everywhere. It comes in all kinds and shapes and sizes. It's not all digital, but most of it is.

Analytics are methods and tools to parse streams of digital bits and bytes into meaningful patterns that can be explored to help stakeholders make more effective decisions.

Learning analytics are methods and tools needed to parse the stream of digital bits into meaningful patterns that explore dimensions of cognition, instruction and academic experience, including student success.

Data-readiness ranges from essential individual knowledge and skills to institutional capacity for creating a culture that values evidence-based decision-making.

HOBSONS

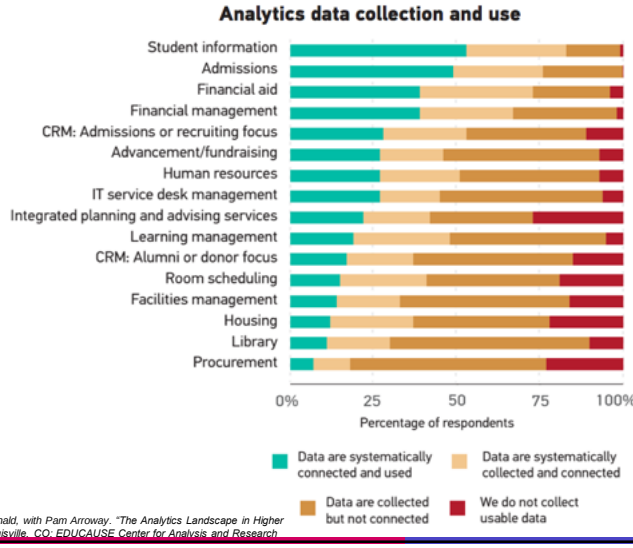
A Changing Landscape

Source: Tyton Partners, "Driving Towards a Degree, The Evolution of Planning and Advising in Higher Education, Part i," 2016.

Data Have Changed Everything

- Analytics have ramped up everyone's expectations of personalization, accountability and transparency.
- Academic enterprises cannot live outside the institutional focus on tangible, measureable results driving IT, finance, recruitment, content and other mission critical concerns
- In the past 8 years, the conversations about data readiness have migrated from (1) completion to (2) retention to (3) gainful employment to (4) personalization to (5) quality

Data is Collected, Not Connected



Source: Yanosky, Ronald, with Pam Arroway. "The Analytics Landscape in Higher Education." 2015. Louisville, CO: EDUCAUSE Center for Analysis and Research

"The difference between what we're collecting and what we're reporting on is huge."

-

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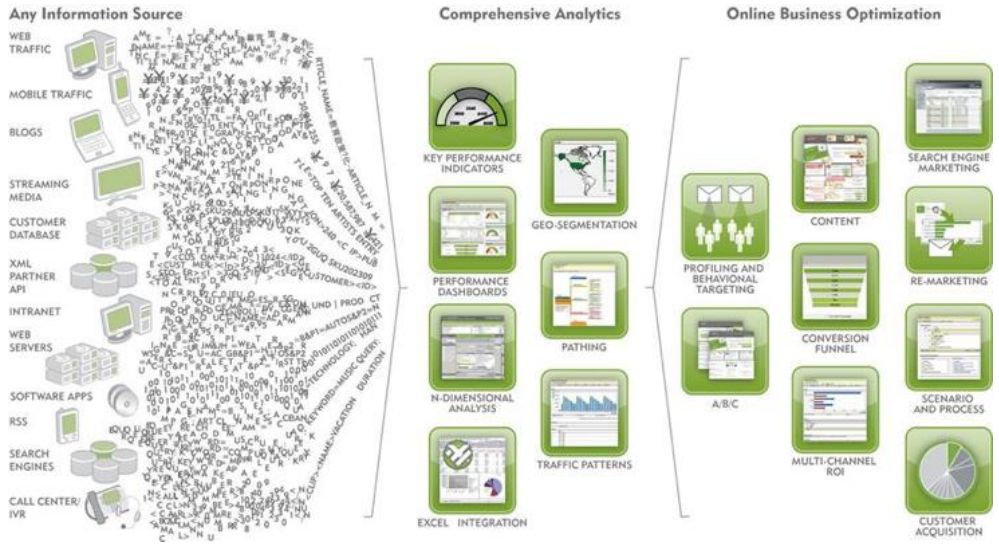
Analytics Bring Order and Meaning to Data



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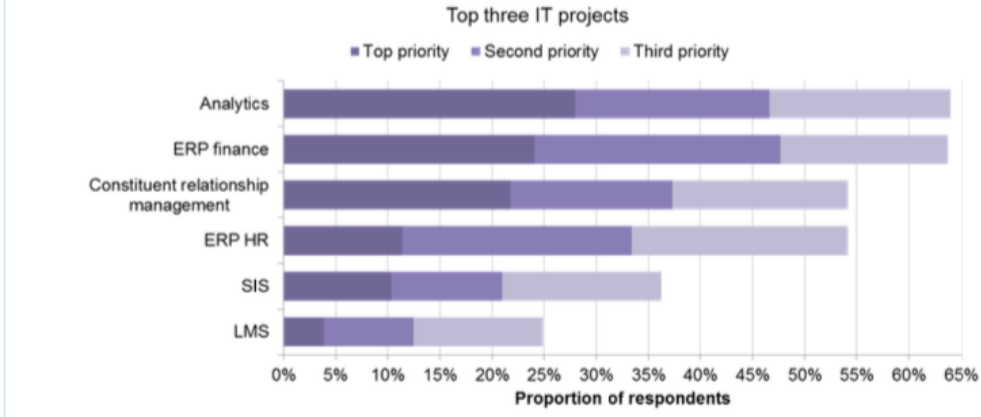
The Promise of Analytics

Figure 1: Investing in analytics is a top priority for higher education in 2016



Source: Johal, Navneet, "2015 ICT Enterprise Insights in the Higher Education Industry," Ovum Research, 2015

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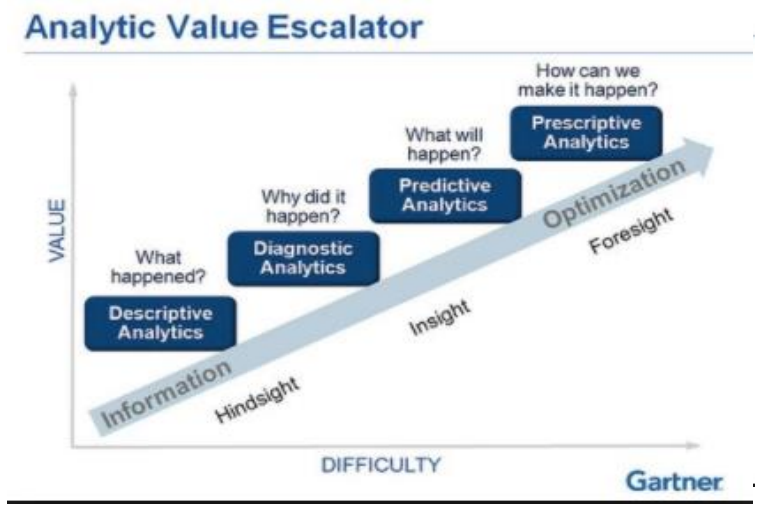
Gartner Research Analytics Model, 2012



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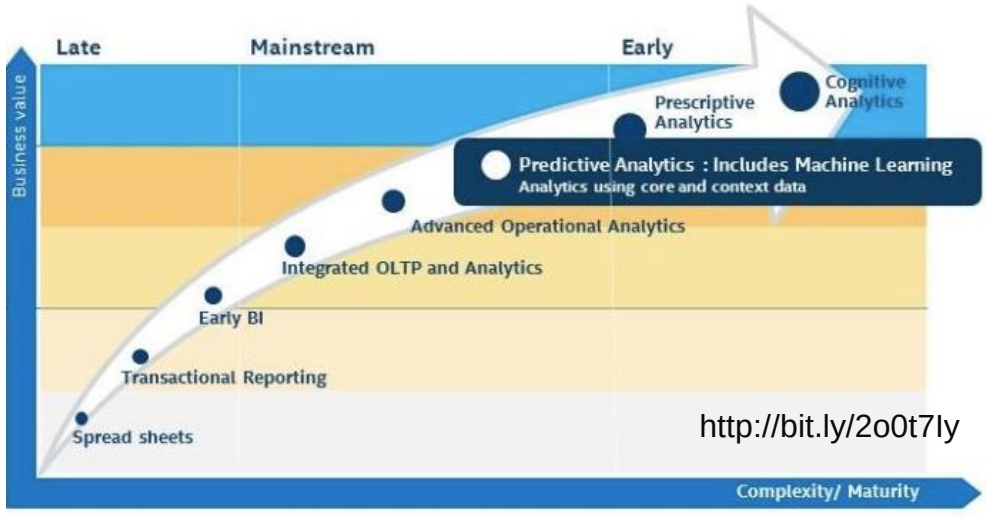
Beyond Prescriptions: Machine Learning



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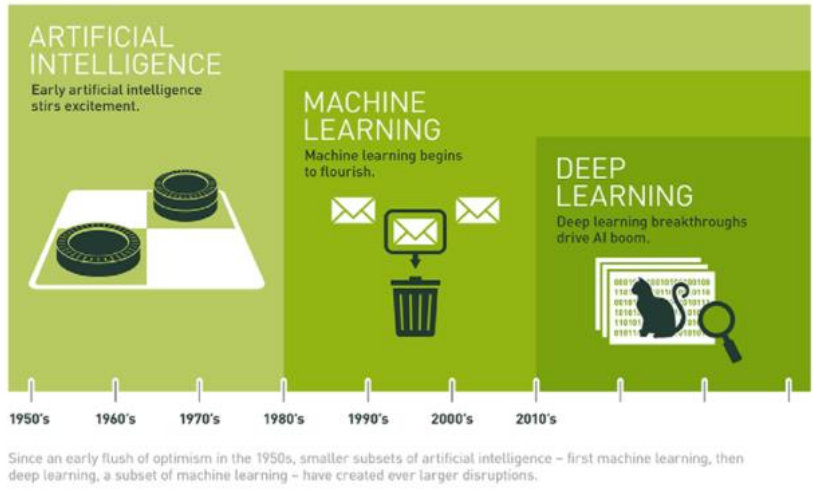
From Machine Learning to Deep Learning and Artificial Intelligence



http://bit.ly/2aoQwlx

From Research to Practice

The Evolution of PAR Framework

2011

The PAR Framework was founded as a Gates Foundation project within WICHE as part of WCET.

2012

PAR developed the Student Success Matrix as a common way to classify interventions.

2013

PAR openly licenses and publishes data definitions and Student Success Matrix

2015

PAR became fully independent, not-for-profit software as a service membership collaborative.

2016

Hobsons acquired the assets of PAR as part of its portfolio of Student Success solutions (which includes Starfish).

PAR FRAMEWORK → PARFRAMEWORK

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PAR Framework Research Questions

- Can predictive analytics find students at risk with the data we have in hand?
- Can risk differences between and among student sub-populations in an institution be discerned?
- Will students from anomalous institutions be discernable?

PAR Framework Common Data Definitions

Student Demographics

- Gender
- Race
- Prior credits
- Permanent resident zip code
- High school information
- Transfer GPA
- Student Type

Course Information

- Course location
- Subject
- Course number
- Section
- Start date / End date
- Initial grade / Final grade
- Delivery mode
- Instructor status
- Course credit

Course Catalog

- Subject
- Course number
- Subject (long)
- Course title
- Course description
- Credit range

Lookup Tables

- Credential types offered
- Course enrollment periods
- Student types
- Instructor status
- Delivery modes
- Grade codes
- Institution characteristics

Student Financials

- FAFSA on file
- FAFSA file date
- Pell received / awarded
- Pell date

Student Academic Progress

- Current major / CIP
- Earned credential / CIP

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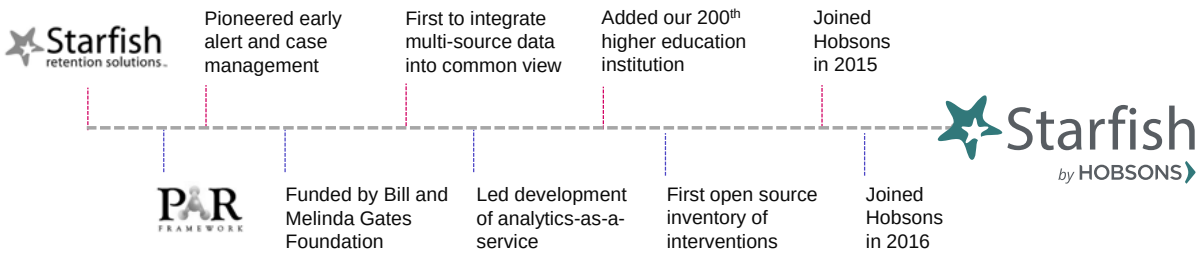
A Decade of Student Success



Evidence is Essential

"This work has allowed us to eliminate the duplication of services by multiple departments and streamline our programming to offer first class interventions to our student population. The Student Success Matrix has the potential to serve as our hub for academic support."

Michelle Wiley, Student Support Specialist, ***Penn State World Campus***

Evidence is Essential

"In order to achieve the goals in our strategic plan, it's absolutely essential that we approach student success in a holistic way, with good data to drive decisions. Starfish has been an important partner in that endeavor."

Mark Askren, CIO,
University of Nebraska - Lincoln

Connections are Critical

"We can't just throw data at faculty and expect them to embrace it – and understand it – unless they realize that there's a problem they're trying to solve."

Larry Dugan, Director of Instructional Technologies, ***Monroe Community College (SUNY)***

Source: Jankowski, Natasha A. "Unpacking Relationships: Instruction and Student Outcomes." American Council on Education. 2017.

Action is Imperative

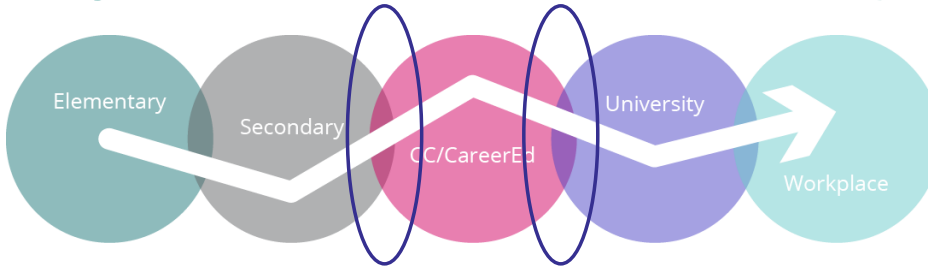
"I believe that as an institution of higher education, we have a moral obligation to offer all that is possible to assist with a student's success.

Dr. Francis L. Battisti, Executive Vice President and Chief Academic Officer, ***SUNY Broome Community College***

Mission Alignment

Priorities		PAR Research Includes
• First-year student success • Adult and post-traditional learners • BMI and other programs to support underrepresented students • Transfer students (up, down, lateral) and pathways	⟷	• "An Empirical Look at Intervention Effectiveness for Improving First Year Experiences," Presentation by PAR's Ellen Wagner, PhD., Oct 2015 • "Expansion for Evaluation of CAPL 101/Jumpstart – UMUC Student Success," Report by PAR's Ellen Wagner, Ph.D., Scott James, and Cassandra Daston. June 2015 • "Retention, Progression, and the taking of Online Courses," Online Learning peer-reviewed study by Dr. Karen Swan (UIS) and PAR's Scott James and Cassandra Daston, June 2016 • "Predicting Transfer Student Success," whitepaper by Scott James, PAR Data Scientist. May 2015 • https://www.hobsons.com/resources/entry/improving-post-traditional-student-success

Data Awareness Has Highlighted Misalignments in the U.S. Education System



- Points of transition typically represent points of loss in the system.
- What can we do to optimize digitalization to increase student success, improve institutional effectiveness and efficiency and reduce cost?

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Discussion and Questions

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Thanks for your Interest!

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