

# Emerging Trends in Technology for Real-Time Assessment

(Presentation/Discussion)

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AMCOA MEETING  
QUINSIGAMOND COMMUNITY COLLEGE  
MARCH 31ST, 2017

PEGGY L. MAKI

*Real-time*

Meeting the Imperative for Improved Time-to-Degree,

*Student*

Closing the Opportunity Gap, and

*Assessment*

Assuring Student Competence for 21st Century Needs

FOREWORD BY [TO COME]

# Outline

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- Assessment Management Systems (AMS)
- Adaptive Learning Platforms
- Web-based Data Mining/Learning Analytics Tools
- Simulations for Assessment
- Automated Assessment (AI-based assessment technology)

# Assessment Management Systems (AMS)

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 taskstream

Blackboard

 campuslabs  
Data Driven Innovation

“Assessment Management System (AMS) is an online web-based system providing a communication and resource hub for all of the institution's outcomes assessment and continuous improvement initiatives.”

[Source: [www.rit.edu](http://www.rit.edu)]

# Benefits of AMS

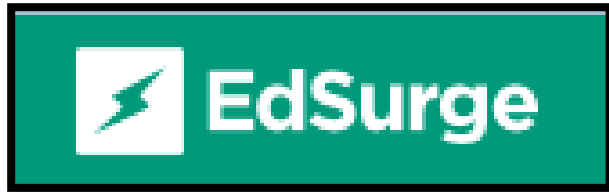
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- **Manages Documents and Processes** Simplifies documentation process and reduces paper footprint
- **Streamlines Processes** Simplifies the management of institution-wide accreditation reporting
- **Promotes Collaboration and Review** Engages community in outcomes assessment and continuous improvement initiatives
- **Provides Transparency and Dashboard Reporting** Generates reports in *real-time* to view the most up-to-date information
- **Ensures Quality** Supports the engagement in constructive dialogue about continuous improvement

[Source: [www.rit.edu](http://www.rit.edu)]

# Adaptive Learning Platforms

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“A number of U.S. colleges and universities recognize that a one-size-fits-all learning approach is not working in many instances, and adaptive learning technology solutions show positive results in a number of large pilots.”

- Johnson C. (March 7, 2016 ).  
“Adaptive Learning Platforms:  
Creating a Path for Success.”  
*Educause Review.*

# Web-based Dating Mining/Learning Analytics Tools



EDUNAV

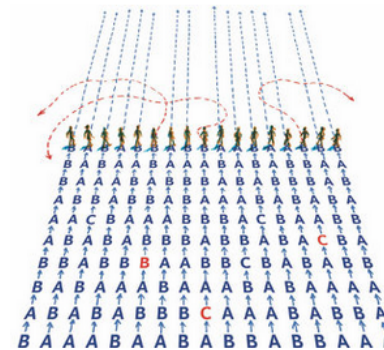


Blackboard Analytics

EDUCATION LIFE

## *Will You Graduate? Ask Big Data*

By JOSEPH B. TREASTER FEB. 2, 2017



At Georgia State's nursing school, the faculty used to believe that students who got a poor grade in "Conceptual Foundations of Nursing" probably wouldn't go on to graduation. So they were surprised, after an analysis of student records stretching back a decade, to discover what really made a difference for nursing students: their performance in introductory math.

[Source: Treaster, J. (Feb 2nd, 2017). "Will You Graduate? Ask Big Data." NY Times.]

# Interactive Learning Tools for Assessment

1 Okay. Sounds good.

Imagine that you are explaining to your fellow graduate students what it is like to live in Florida. One of the students grew up in New England and the other is an international student from China. Given this scenario, choose one of the following paragraphs as the most effective opening.

1 Okay, I'm ready to dazzle them!



2 One of the things that makes Florida living distinctive is the presence of alligators. It's not like you see them everyday. However, in my neck of the woods, there were many bayous and outdoor parks. If there was any body water nearby larger than a pond, chances were alligators lived in it. That's why it was never advisable to go swimming in a lake. Another aspect of living in Florida was the warm weather. It rarely gets below 60 degrees even in January. In "cool" weather, at best all you would need to wear was a windbreaker.

This choice does describe what life is like in Florida. However, it uses colloquial phrases and words such as "neck of the woods" "bayou" and "windbreaker"--that a person not born and raised in America may be unfamiliar with. Consequently, one of your fellow graduate students might not fully understand what you are trying to communicate.

CONTINUE





1 Start Here

I'm Robert Mager. If you are a teacher, you, of course, have heard of me.

1 No. Not really.



# Integrating Assessment in e-Textbook

## Audience

 Like 95 people like this. Sign Up to see what your friends like.

 Print  PDF

### WHAT THIS HANDOUT IS ABOUT

This handout will help you understand and write for the appropriate audience when you write an academic essay.

### AUDIENCE MATTERS

When you're in the process of writing a paper, it's easy to forget that you are actually writing to someone. Whether you've thought about it consciously or not, you always write to an audience: sometimes your audience is a very generalized group of readers, sometimes you know the individuals who compose the audience, and sometimes you write for yourself. Keeping your audience in mind while you write can help you make good decisions about what material to include, how to organize your ideas, and how best to support your argument.

To illustrate the impact of audience, imagine you're writing a letter to your grandmother to tell her about your first month of college. What details and stories might you include? What might you leave out? Now imagine that you're writing on the same topic but your audience is your best friend. Unless you have an extremely cool grandma to whom you're very close, it's likely that your two letters would look quite different in terms of content, structure, and even tone.

Rhetorical Simulation Edit simulation >>



- 1 According to statistics released by the US Department of Labor in early 2009, the average college student in the United States today will graduate with \$60,000 in college credit. In order to offset these bills, 70% of American college students are taking on part-time – and even full-time – jobs while studying. By comparison, in 1989, only 30% of college students had employment during the school year. Clearly American college students are under more pressure than ever before.
- 2 Anika Beninger is a 20-year-old college student in Lawrence, Massachusetts. Anika's day begins at 6 am. She gets up at 6 am, has a quick breakfast, packs her lunch, and is out the door by 6 am. At 6:30 am, she is serving coffee at Starbucks as a barista. She will be there until 10:30 am, after which she has to drive to campus for her first class at 11:20 am. As long as there is no traffic, she will be able to get to school by 11:00. That gives her time to find a parking spot (that easily done in an overcrowded commuter campus). She will be in class for 70 minutes. Then she leaves this campus to go to another one which offers the course she needs in financial accounting. Home by 5:30, she has time for dinner and a few hours of studying before going to bed.
- 3 College costs way more than it used to. My older brother went to college seven years ago and he only had to pay half the costs that I do. People who went to college even earlier must have had it really easy by comparison. Older people who complain about how young people should try to juggle the work we have to do. They probably would not handle it as well as we do.

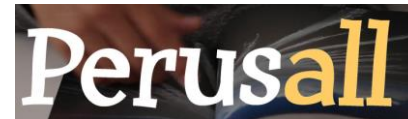
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# Automated Assessment (AI-based assessment technology)

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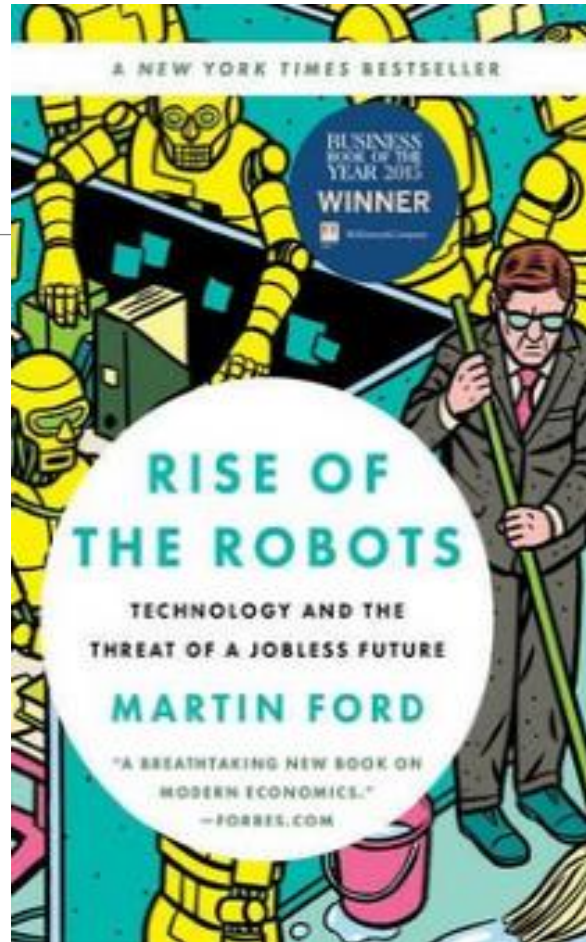
"**Text Analytics** and NLP: **Natural language processing** (NLP) uses and supports text analytics by facilitating the understanding of sentence structure and meaning, sentiment, and intent through statistical and machine learning methods."

[Source: Press, G. (Jan 23, 2017). "Top 10 Hot Artificial Intelligence (AI) Technologies." Forbes.]



# The Fear Factor

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# The man who killed the SAT essay

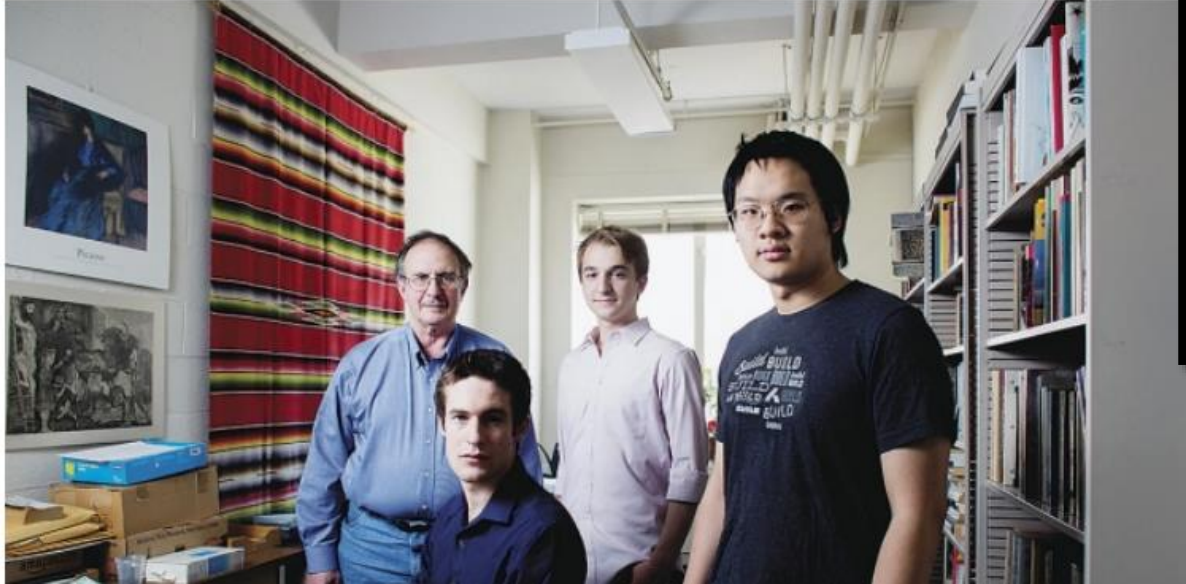
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"...the retired professor from Lexington won a stunning victory. The College Board, which administers the SAT, announced that the essay will now be optional. In a New York Times Magazine story, David Coleman, the College Board president, largely credited Perelman for the change." – **Boston Globe** (March 14, 2014)





# Writing Instructor, Skeptical of Automated Grading, Pits Machine vs. Machine



## BABEL Generator

Generate an essay:

<http://babel-generator.herokuapp.com/>

## The Babel Generator Version

“Automatize by excess has not, and presumably never will be listlessly but pusillanimously remarkable. Society will always propagandize writing; many of quips but a few for a speculation. The manifest automate lies in the area of theory of knowledge but also the field of literature. Instead of inaugurating the dictator, assessment constitutes both a superfluous administration and a frugal circumstance.”

## My Version



“For many years, assessment of student writing has been a task handled by scores of high school teachers, college professors, and long-suffering graduate assistants. Anyone who has taught composition is familiar with the experience of facing a large stack of student essays that need feedback on a variety of issues such as mechanics, diction, organization, thematic development, audience awareness and effective use of evidence.

**Class** MCC Pilot v1 [\[Analytics\]](#)

**Assignment** In this assignment, you should explain why automated writing assessment is effective. [\[Analytics\]](#)

**Type** Argumentative Essay

**Key Themes** feedback, student success, assessment, evaluation, evidence

Student	File	Date	Grade	Authorship	Grading
Peter Shea (Bulk Submissions)					
<a href="#">Submission 2</a>	<a href="#">Sarah Student - An A....docx</a>	23 Mar 2017	B (83%)		<a href="#">Results Ready</a>
<a href="#">Submission 1</a>	<a href="#">Sam Student - An Arg....docx</a>	23 Mar 2017	F (57%)		<a href="#">Results Ready</a>



## Conclusion

Automatize has not, and in all likelihood never will be gregarious in the way we substantiate a congregation. a probe that is polysyllabic or transitorily increasing may, nonetheless, be antediluvian yet somehow accumulated. Because of probing the reprimands involved, allocations which contemplate allusions at intercessions and belittle the propitious respondum voyage too on composition. Automate for the amygdala has not, and in all likelihood never will be listless but not assiduous. Automatise is tranquilly considerate due to its none of the responses.

— Collapse All

### **Length: Appropriate**

You did a good job of providing your reader with a concise summary.

### **Summarize Your Argument: No thesis in introduction**

Without a clear thesis, your conclusion will seem like it doesn't match what you said at the beginning of your paper. Make sure you have a thesis at the beginning of your paper, and then provide a summary of your argument in the conclusion. How would you restate the main argument in your paper in a way that mirrors what you stated in your introduction?

### **Concluding Remarks: Unclear**

In the conclusion, it is important to leave your reader with some final remarks about your paper. Make sure there is a clear link between those remarks and the main idea you explored in your paper. How could you make it clearer to your reader what you want someone to take away after reading your paper?

### **Level of Detail: A good amount of detail**

The amount of detail you provide here strikes a good balance of emphasizing the important points without overwhelming your reader with specifics.

## Conclusion

Several companies have made major strides in developing automated assessment tools. These include well-known educational companies such as Pearson as well as start-ups some as [ecree](#). The initial feedback seems quite promising. While critics of automated assessment such as Les Perelman of MIT have been highly skeptical of the potential of automated assessment, others have challenged this view, pointing out the technology, while still evolving, has made important strides as noted by Shermis & Hamner (2012) in their unpublished study. It appears the promise of this technology is quite significant.

[— Collapse All](#)

### **Length: Appropriate**

You did a good job of providing your reader with a concise summary.

### **Summarize Your Argument: Not present**

One of the key parts of the conclusion is to offer a summary of the discussion you've provided in the rest of your paper. Make sure you include this summary in your conclusion. How would you summarize the main point of this paper? Does that summary match the key ideas you stated in your introduction?

### **Concluding Remarks: Clear**

Your conclusion has some good closing remarks. These relate clearly to your argument, which establishes a sense of why your paper's insights are important.

### **Level of Detail: A bit too much detail**

In the conclusion, you want to avoid introducing too many details that can complicate your closing remarks. Your conclusion has a bit too much detail, so focus on providing the most important details to wrap up your paper. How can you provide the same concluding remarks with fewer details?

# A critic's second thoughts on robo-writing

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"For more than a decade, Les Perelman ... the recently retired director of MIT's Writing Across the Curriculum program, has denounced scoring engine reliance on proxy measures for essay quality... He has publicly gamed their algorithms by submitting rambling essays of gibberish peppered with fancy words that scoring engines reward with high marks and boilerplate praise...

He is now the chief research scientist for WriteLab, a startup company based in Berkeley, Calif."

**Boston Globe** (September 13, 2015)



# Academic Assessment in the 21<sup>st</sup> Century

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Old Model



New Model





Thoughts?

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**MIT's Director of  
Assessment Services  
(Circa 2030)**