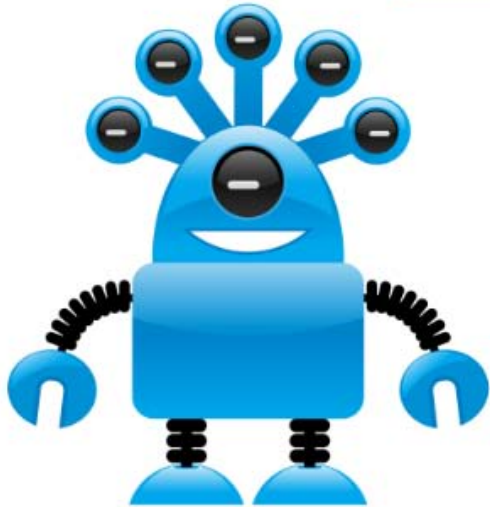
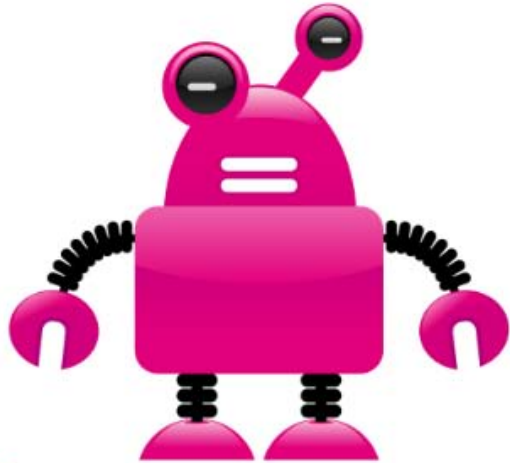


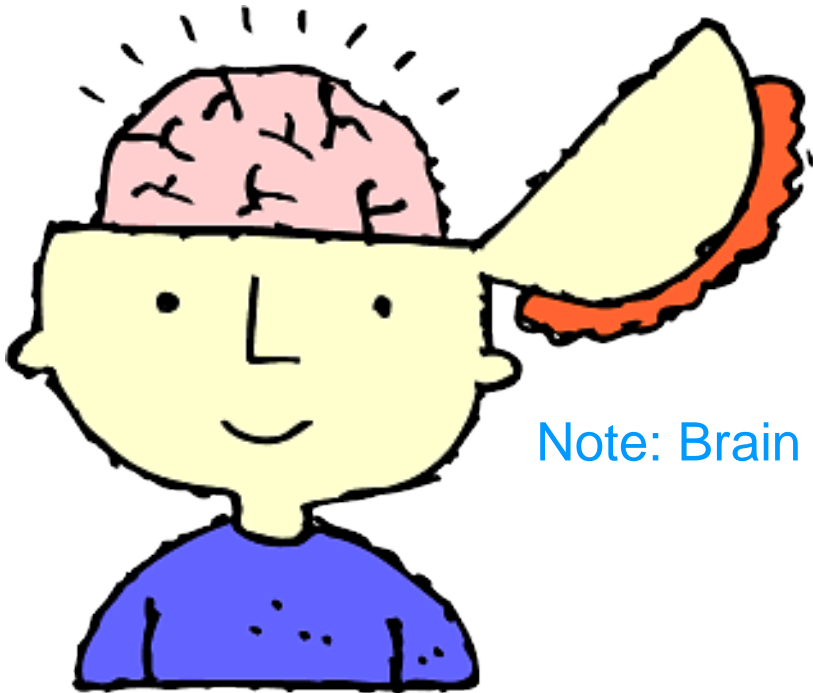
Information Literacy Assessment in a 2.0 World: Changes & Challenges



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Why are we here?

- We want to know what students know and don't know so we can help them learn.
- So, how do we find out what students know?



Note: Brain scans are not (currently) an option.

We can ask questions. (1.0)

The Ultimate Bicycle Quiz



Where were bicycles first introduced?

- Europe
- Africa
- North America

The Ultimate Bicycle Quiz



What do bicycles use to reduce friction?

- aerodynamics
- ball bearings
- oil

The Ultimate Bicycle Quiz



What's the core of a bicycle called?

- seat post
- bracket
- frame

The Ultimate Bicycle Quiz



What are the pedals connected to in a penny-farthing bicycle?

- the front wheel
- the rear wheel
- the fork tube

What are the hallmarks of the 1.0 world?



- Receiving passively
- Reading
- Listening
- Responding within parameters

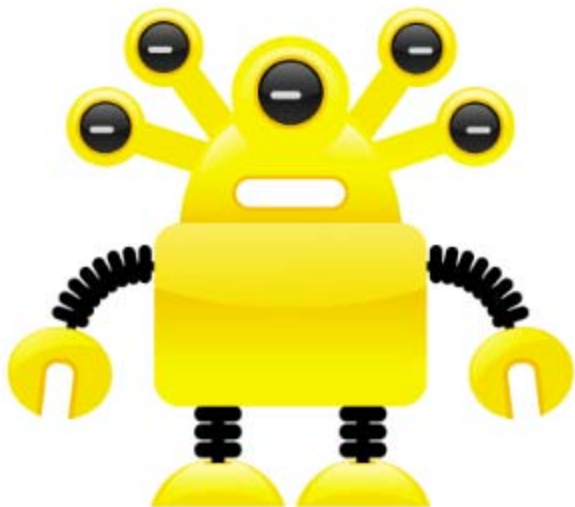
What's wrong with 1.0 assessment... namely, surveys & tests?

Surveys

- Difficulties of self-report

Tests

- Simple questions in a complex landscape
- Limited to facts, recall, rather than higher-order thinking
- Issues of score spread or score bunching



But there's a lot that's right too!

How is 2.0 different from 1.0?

- Connecting
- Participating
- Engaging
- Creating



We can watch students' processes or examine products of their processes.

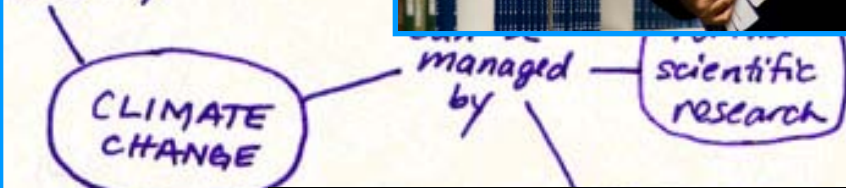
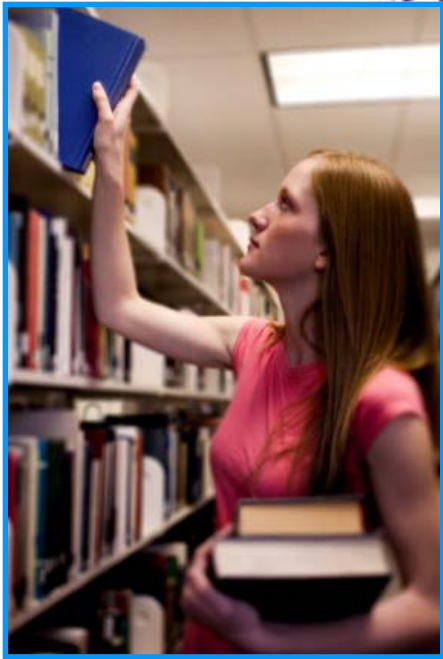
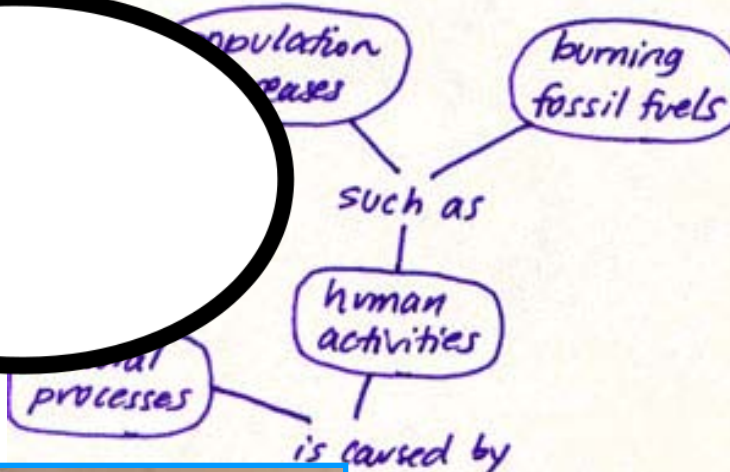
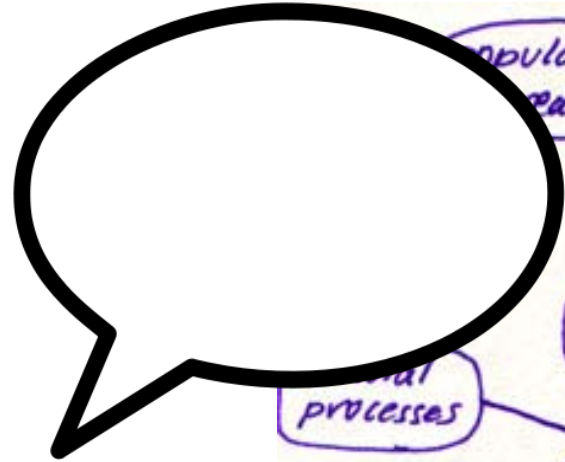


What does Assessment 2.0 look like?

- Engaged
- Performance-based
- Authentic & realistic
- Embedded
- Valid
- Reliable
- Motivated



So...what does bike riding look like in Information Literacy Land?



Annotated Bibliography Entry

Source Type:
 reference book website popular magazine article dissertation
 book interview scholarly journal article gov't document
 other: _____

Full MLA citation:
 Gustafsson, PA et al. "Breastfeeding, Very Long Polyunsaturated Fatty Acids (PUFA) and IQ at 6 1/2 Y
 93.10 (2004): 1280-1287.

Brief summary & critical analysis of content:
 This article both hypothesizes and experimentally proves that the effects of breastfeeding on IQ composition of polyunsaturated fatty acids (PUFAs) in human milk. The article states that fatty acids are elements that are required by cell membranes, for the formation of new tissue, and for the formation of neurons. The formation of neurons and glial cells occurs during the fetal period of pregnancy, and a lack of the necessary

What are good artifacts of student learning for assessment?

- | | |
|--|--|
| <ul style="list-style-type: none">• research journals• reflective writing• “think alouds”• self or peer evaluations• research drafts or papers• open-ended question responses• works cited pages• annotated bibliographies• speeches• multimedia presentations• posters• exhibits | <ul style="list-style-type: none">• group projects• performances• portfolios• library assignments• worksheets• concept maps• citation maps• tutorial responses• role plays• lab reports• blogs• wikis |
|--|--|



How do these artifacts affect the results of assessment?



(Process vs. Product)

Tools for Assessing Artifacts



Assessing Bike Riding



- Use proper hand signals.
- Select a safe route to your destination.
- One seat = one rider.
- Walk your bicycle across busy intersections.
- Watch out for pedestrians.
- Stop at all stop signs, yellow and red flashing railroad signals.
- Avoid busy streets and intersections.
- Look both ways before crossing streets and driveways.
- Always be aware of the traffic around you.
- Do not swerve in and out of par...
- Stop at the end of driveways and before entering the sidewalk or...

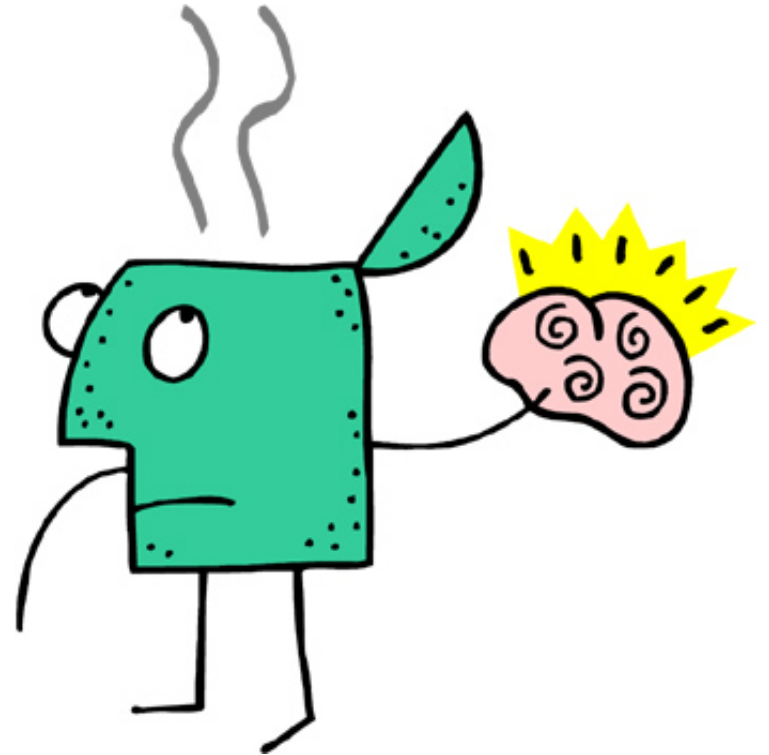
What's a Rubric?

Rubrics...

- describe library service impact in 2 dimensions
 1. parts, indicators, or *criteria* and
 2. *levels of performance*
- formatted on a grid or table
- employed to judge quality
- used to translate difficult, unwieldy data into a form that can be used for decision-making

Why do we write rubrics?

- We want students to know what we expect so they can learn more easily, thoroughly, etc.
- Brain scans are (still) not an option.



Checklists



	Observed	Not Observed
Eye Contact	√	
Gestures		√

Likert Scales

	0	1	2
Eye Contact	√		
Gestures		√	

	Novice	Proficient	Professional
Eye Contact	√		
Gestures		√	

LIKERT SCALE

CRITERIA

&

**PERFORMANCE
LEVELS**

*(numbers or
descriptive terms)*

Full-Model Rubrics

	Beginning	Developing	Exemplary
Eye Contact	Does not make eye contact with the audience.	Makes intermittent eye contact with the audience.	Maintains sustained eye contact with the audience.
Gestures	Gestures are not used.	Gestures are used, but do not emphasize talking points.	Gestures are used to emphasize talking points.

**FULL-MODEL
RUBRIC**
*CRITERIA,
PERFORMANCE
LEVELS,
&
PERFORMANCE
DESCRIPTIONS*

Rubric Norming Process

1. Think aloud through scoring several examples.
2. Ask raters to independently score a set of examples that reflects the range of services libraries produce.
3. Bring raters together to review their scores to identify patterns of consistent and inconsistent scores.
4. Discuss and then reconcile inconsistent scores.
5. Repeat the process of independent scoring on a new set of examples.
6. Again, bring all raters together to review their scores to identify patterns of consistent and inconsistent scores.
7. Discuss and then reconcile inconsistent scores. This process is repeated until raters reach consensus about applying the scoring rubric. Ordinarily, two to three of these sessions calibrate raters' responses.

Average Kappa	Rank	Participant Group	Status
0.72	1	NCSU Librarian	Expert
0.69	2	Instructor	Expert
0.67	3	Instructor	Expert
0.66	4	Instructor	Expert
0.62	5	NCSU Librarian	Expert
0.61	6	Instructor	Non-Expert
0.59	7	Instructor	Non-Expert
0.58	8	Student	Non-Expert
0.56	9	Student	Non-Expert
0.55	10	NCSU Librarian	Non-Expert
.055	11	Student	Non-Expert
0.54	12	Student	Non-Expert
0.52	13	Student	Non-Expert
0.52	14	NCSU Librarian	Non-Expert
0.43	15	External Instruction Librarian	Non-Expert
0.32	16	External Reference Librarian	Non-Expert
0.31	17	External Instruction Librarian	Non-Expert
0.31	18	NCSU Librarian	Non-Expert
0.30	19	External Reference Librarian	Non-Expert
0.30	20	External Instruction Librarian	Non-Expert
0.27	21	External Reference Librarian	Non-Expert
0.21	22	External Instruction Librarian	Non-Expert
0.19	23	External Reference Librarian	Non-Expert
0.14	24	External Instruction Librarian	Non-Expert
0.13	25	External Reference Librarian	Non-Expert

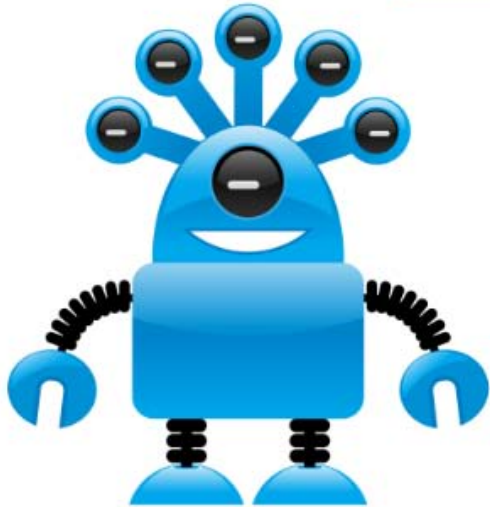
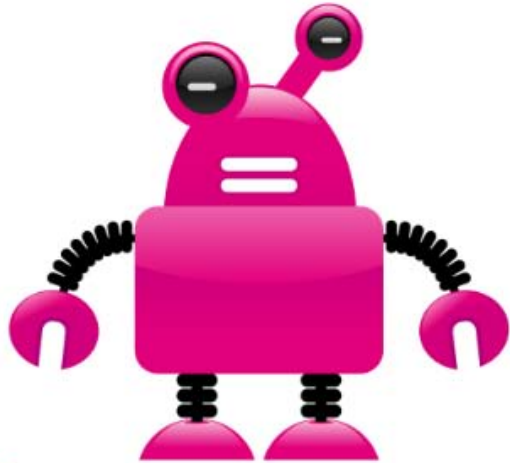


expert status does not appear to be correlated to educational background, experience, or position within the institution

Or just create the rubric as a group.



Problems & Pitfalls



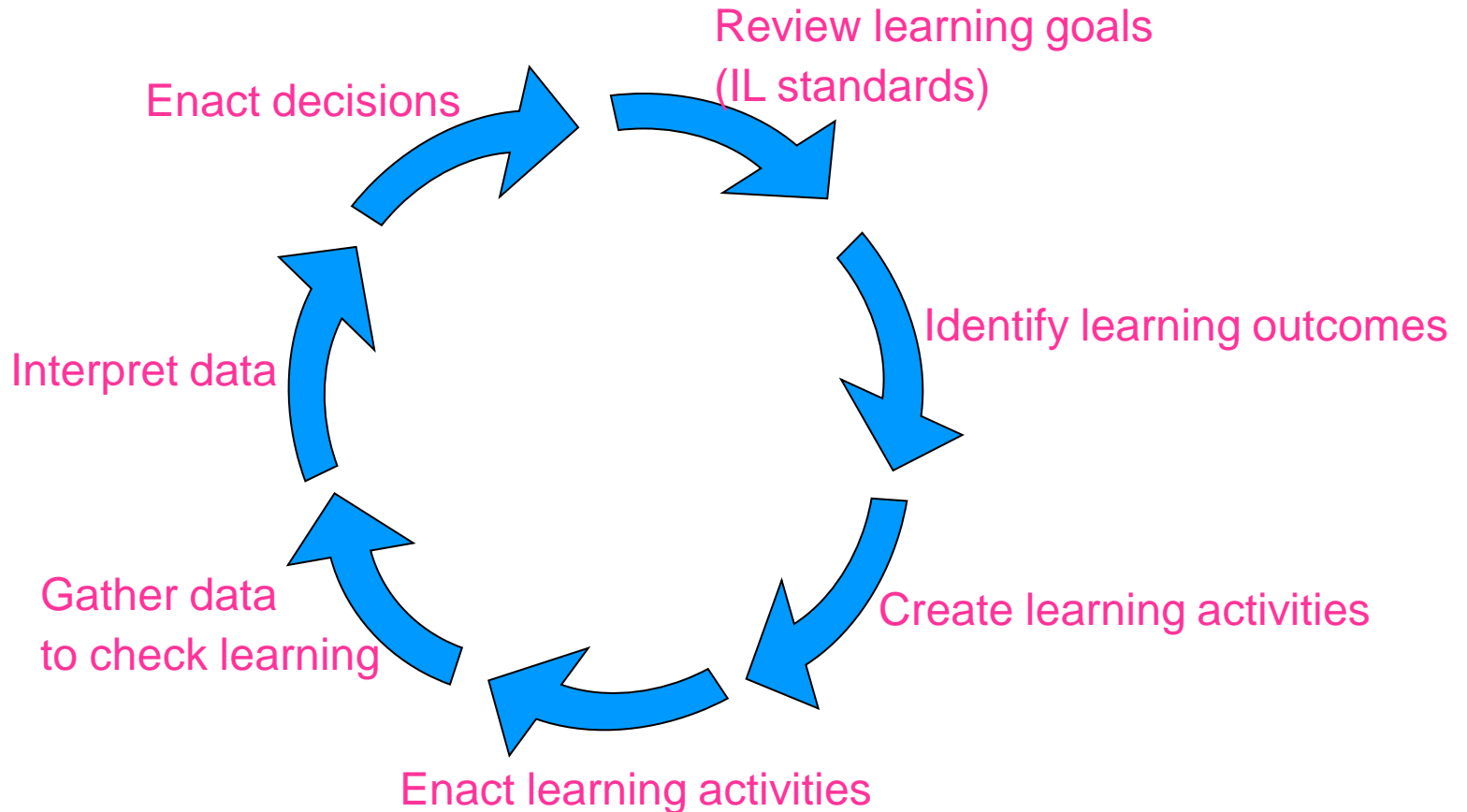
What common mistakes do librarians make when employing Assessment 2.0 strategies?

- Not identifying clear outcomes.
- Not articulating agreed-upon outcomes to students.
- Acting alone.
- Assessing too many outcomes simultaneously.
- Trying to assess outcomes using artifacts that don't reveal them.
- Not balancing task vs. general, analytic vs. holistic approaches, or making other rubric errors.
- Not integrating assessment into regular workflow.
- Not following through on the assessment cycle.

ILIAC

ILI Assessment Cycle

Adapted from Peggy Maki, PhD
& Marilee Bresciani, PhD
By Megan Oakleaf, PhD



Too Vague?

True Developmental Differences?

- Effectively defines, competently defines, defines, too broadly defines
- Effectively determines, determines most, determines some
- Selects, selects but lacks sophistication, selects but lacks in depth, selects inconsistently
- Sophisticated, lacks sophistication, lacks depth and sophistication
- Clarity and depth, clarity but lacking depth, may be clear but not achieved, not achieved and not clear.
- 1 of 4, 2 of 4, 3 of 4, 4 of 4

What are the best ways to avoid these mistakes?

- Work together to articulate agreed-upon student learning outcomes.
- Make outcomes transparent to everyone.
- Embed assessment in regular academic work; ensure that artifacts match investigated outcomes.
- Continue with the assessment cycle...don't get stuck at "interpret data" or "enact decisions".
- Fit assessment into regular workflow; assess one thing at a time.
- Remember why we're bothering!

Barriers to Assessment For Faculty

From the literature: (Bresciani 2009)

- Too little time/resources
- Lack of knowledge or skills
- Lack of process coordination
- Lack of conceptual framework for assessment
- Lack of collaboration with faculty
- Lack of trust
- Difficulties managing expectations

Barriers to Assessment For Librarians

From the survey:

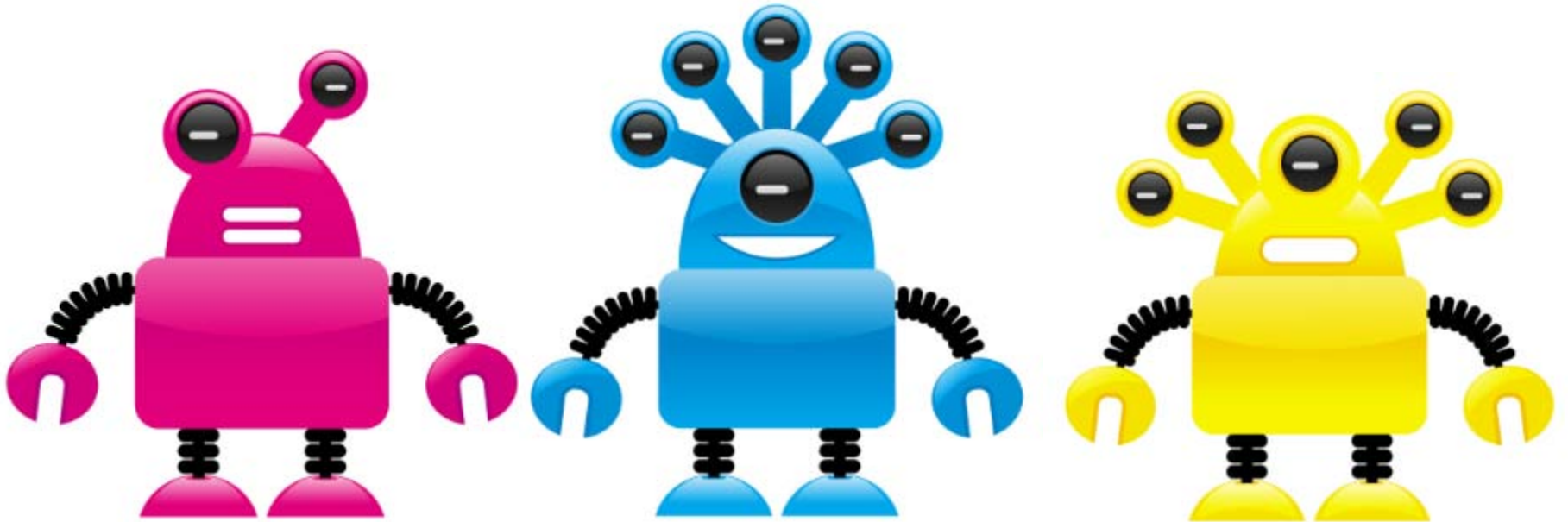
- Too little time/resources
- Lack of knowledge or skills
- Lack of process coordination
- Lack of conceptual framework for assessment
- Lack of collaboration with faculty
- Difficulties managing expectations
 - Difficult finding assessment options that adequately and accurately assess information literacy

Alternatives to Assessment

Given the barriers to outcomes assessment, what alternatives to assessment exist for the ultimate goal, which is the improvement of teaching and learning?



The Way Forward...



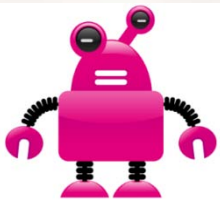
Educate

Train faculty & librarians about

- learning assessment in general,
- tools for assessing learning adequately (and in detail),
- tools for producing data, and
- tools for facilitating the use of assessment data.

Inform administrators about

- the time and
- resources required to assess learning, as well as produce and use assessment results.



Clarify



Clarify the role of faculty/librarians in assessing student learning as well as producing & using assessment data.

Collaborate

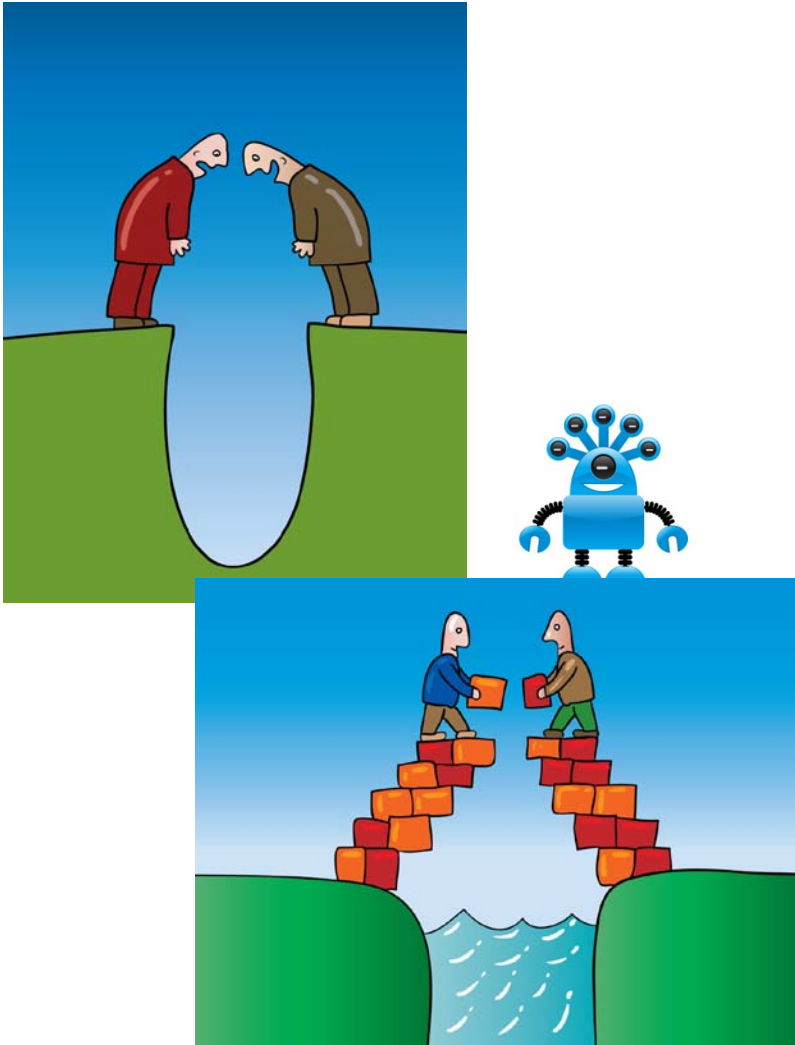


Collaborate with other librarians, faculty, centralized campus assessment support processes, and personnel.

Participate in college-wide efforts to act on assessment results.

Coordinate

Coordinate assessment efforts within the library or academic departments by creating structures to support learning assessment.

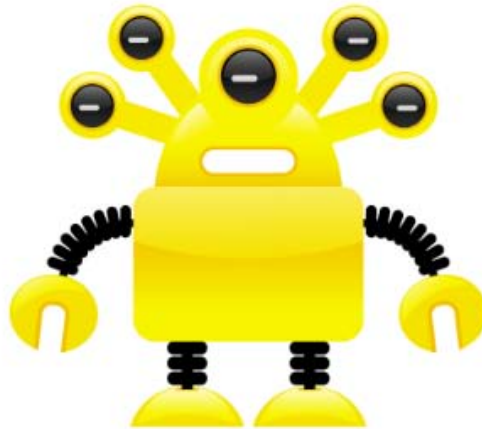
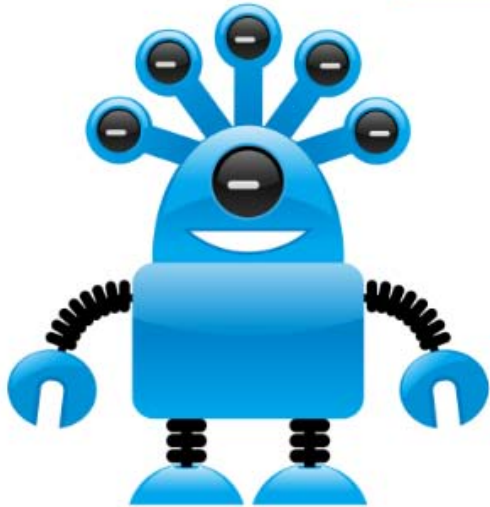
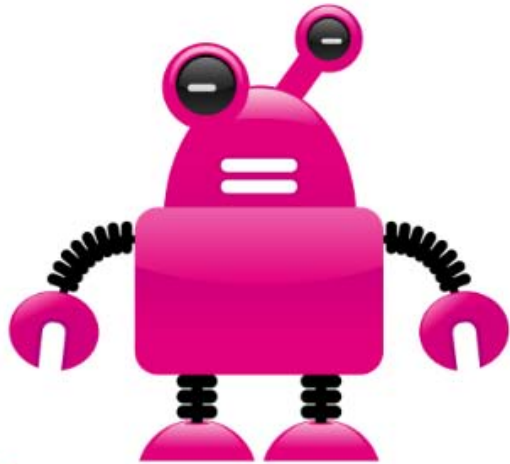


Be Flexible



Re-allocate job responsibilities of those tasked with assessment duties.

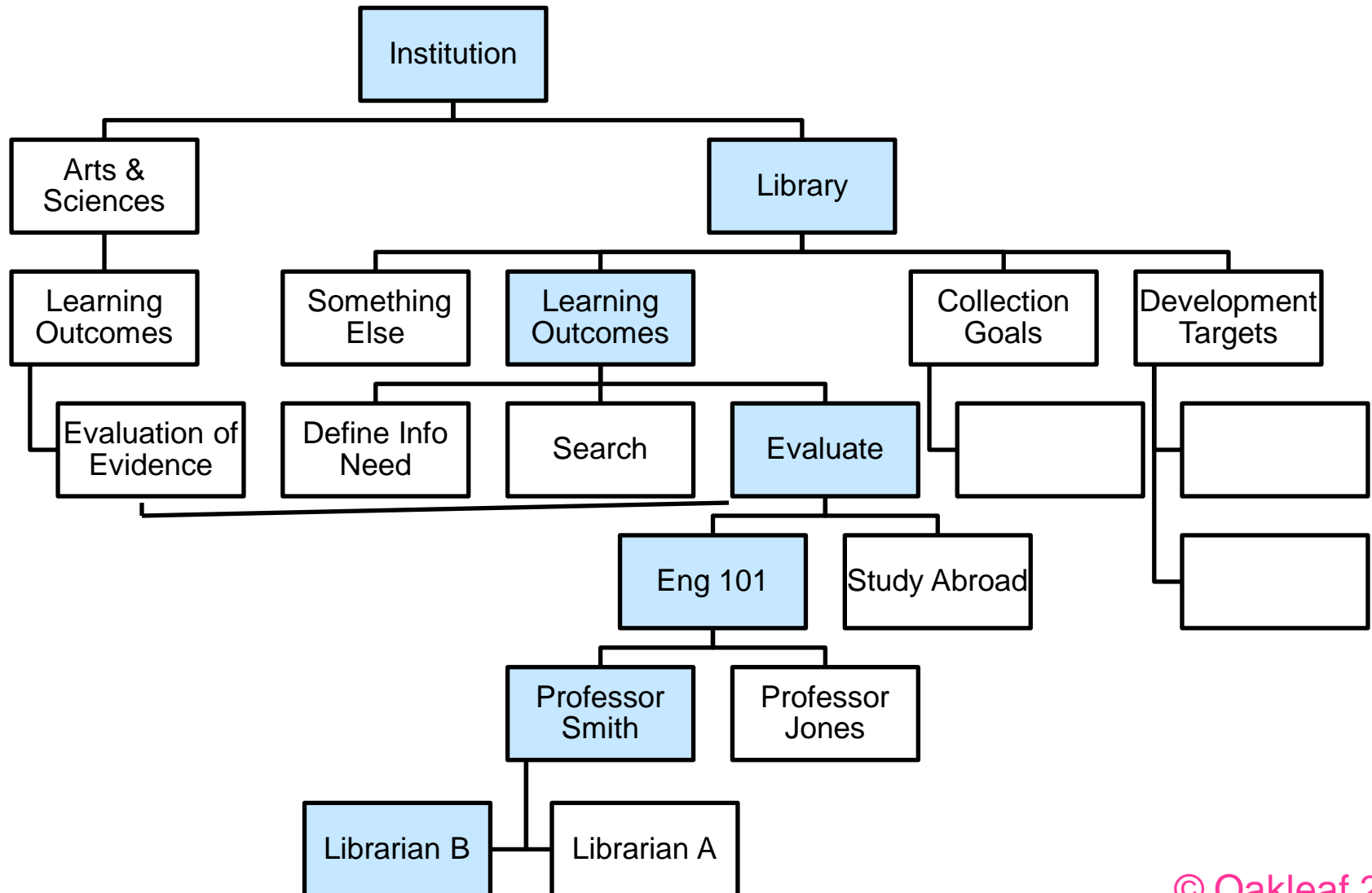
*Put It All
Together*



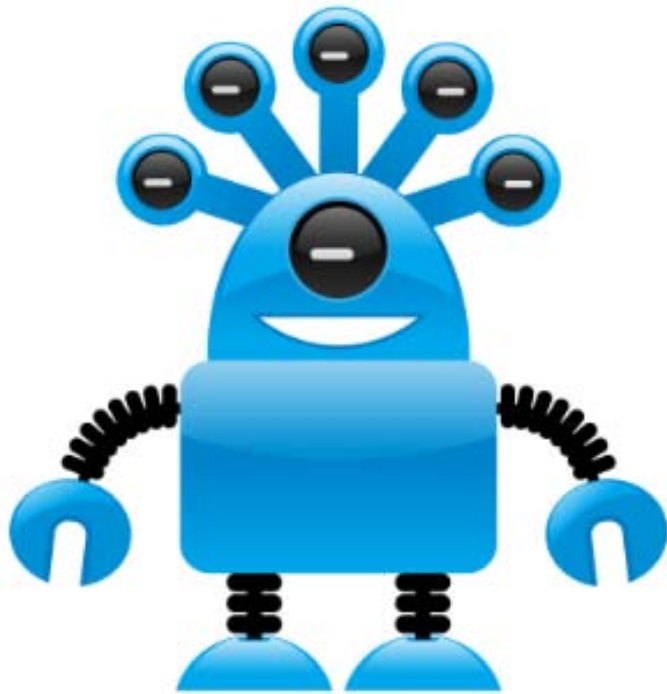
How can we “roll up” individual assessments for institutional reporting?

- Articulate agreed-upon student learning outcomes.
- Collect assessment data for those outcomes wherever available.
- Input data into an assessment management system.
- Run reports: by outcome, by student group, by department, by institutional unit.

Can an aggregate assessment serve as institutional assessment?



How can we institute effective institutional assessment given the rapid pace of change?

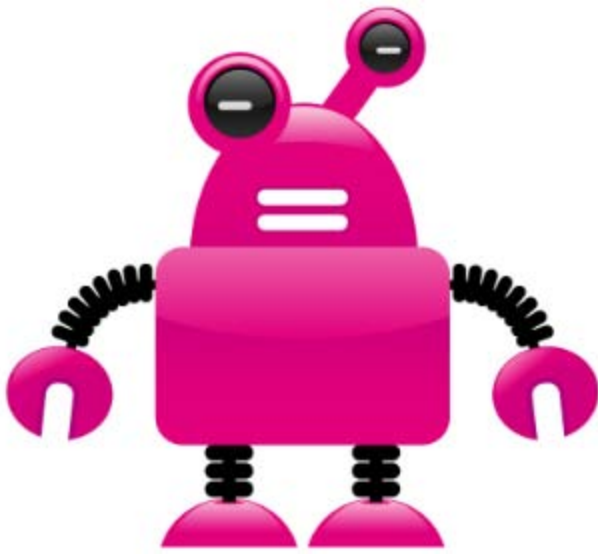


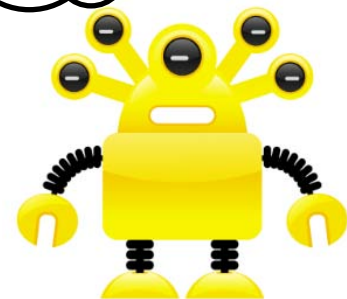
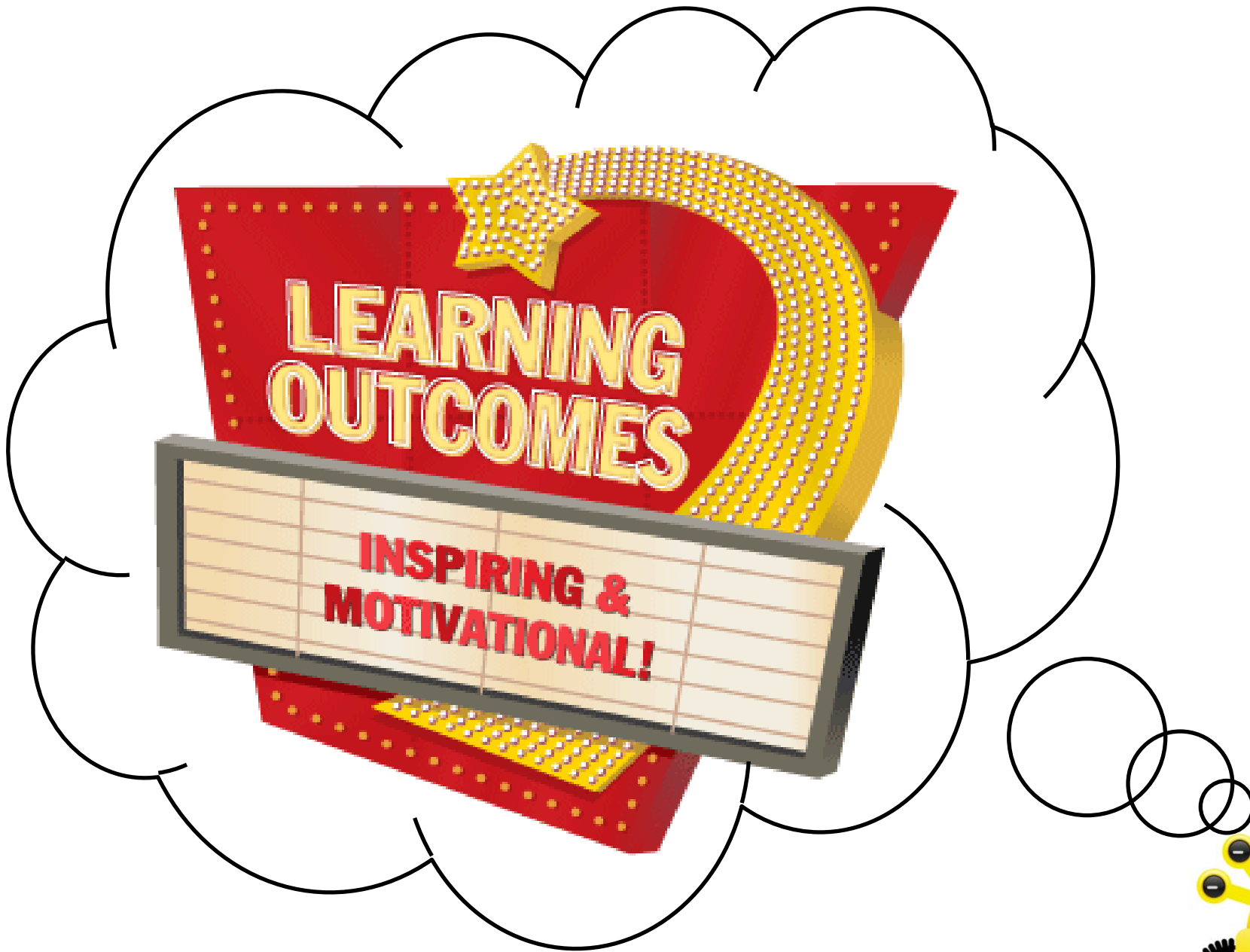
- Technology changes.
- Personnel changes.
- Teaching changes.
- Outcomes change...but very slowly.
- So...
Design & report assessments around outcomes.

Can we use Web 2.0 tools to
assess student learning?

Of course.

When we assess,
what are we looking for?





La Guardia Outcomes, 1 of 2

- Define the scope of a research question or thesis.
- Determine key concepts.
- Selects relevant information related to the key concepts, research question, or thesis.
- Accesses information in a variety of relevant sources.
- Evaluates information to uncover assumptions and understand contexts.

La Guardia Outcomes, 2 of 2

- Communicates, organizes, synthesizes, and analyzes information from sources.
- Uses information to achieve a purpose.
- Uses citations and references; chooses between paraphrasing, summary, or quoting; uses information in ways that are true to original context; distinguishes between common knowledge and ideas requiring attribution.

Group Participation	Observable Behavior	Individual Participation	Emotional Intelligence Attributes
Creation of Shared Pool of Prior Knowledge	Connection to Prior Knowledge	Articulation of Individual Prior Knowledge	Self-Awareness
Archive of Knowledge Gained from Experience	Reflection on Experience (constructivism)	Personal Review of Knowledge Gained from Experience	Self-Awareness
Acknowledgement & Assimilation of Group Members' Experiences	Adjustment to Accommodate New Experience (constructivism)	Acknowledgement & Assimilation of Others' Experiences	Mood Management & Empathy
Use of Group's Experiences for Creation of New Meaning for Group	Construction of Meaning (constructivism)	Use of Others' Experiences to Create New Meaning for Self	
Problem Solving by Group	Problem Solving (constructivism)	Problem Solving by Individual	Self Motivation
Interaction of Group Members (Novice or Veteran) with Others (as Learner or Model)	Interaction (social constructivism)	Interaction by Individual (Novice or Veteran) with Others (as Learner or Model)	Managing Relationships
Learning Enacted in Similar Ways by Group Members	Action (communities of practice)	Enacted Learning (Individual Puts Learning into Action)	Self Motivation
Group Values and Behaviors are Rewarded by Repetition	Creation of Culture (social constructivism & social learning theory)	Adoption of Group Values and Behaviors by Individual	Managing Relationships



Why are we here?

- We want to know what students know and don't know so we can help them learn.
- We have to assess their learning to find out what they know and don't know.
- We have to assess their learning in order to learn to teach better, reflect on our practice, be responsible for resources, and answer to students, parents, employers, graduate/professional schools, and communities.

Tire Swing Cartoon

<http://onproductmanagement.files.wordpress.com/2007/07/treecomicrobig.jpg>

Our customers?

Employers...

Grad schools...

Communities...

Parents...



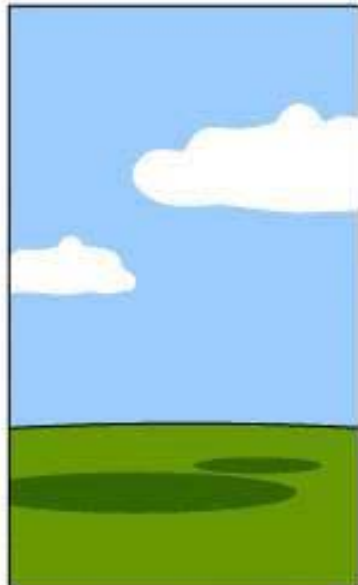
How the customer explained it



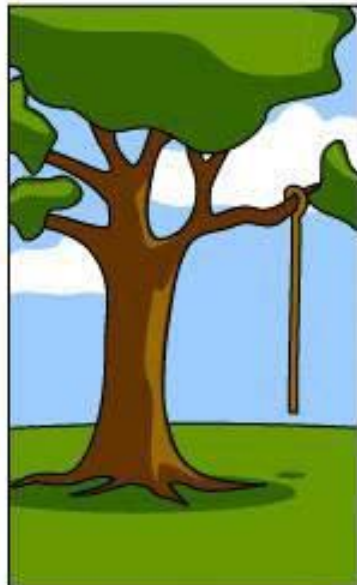
How the Project Leader understood it



How the Analyst designed it



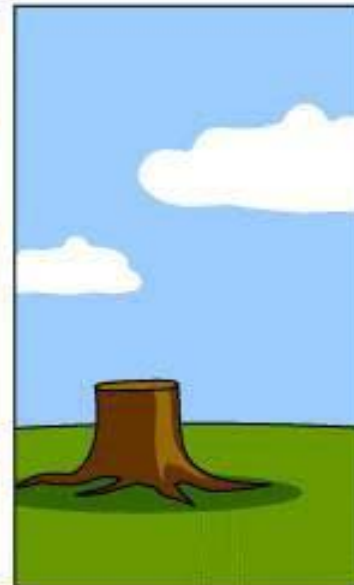
How the project was documented



What operations installed



How the customer was billed

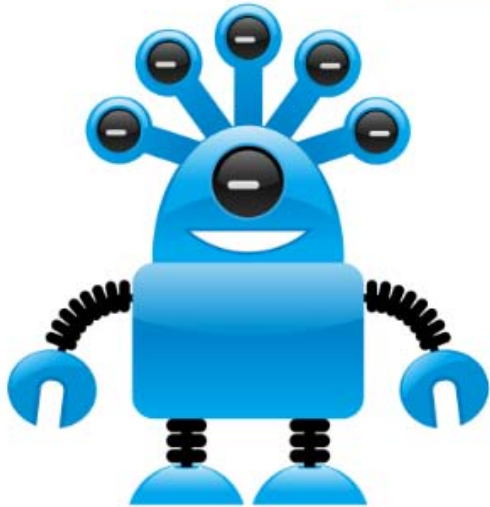
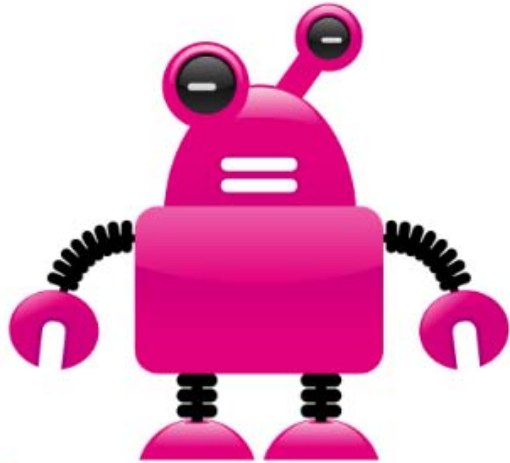


How it was supported



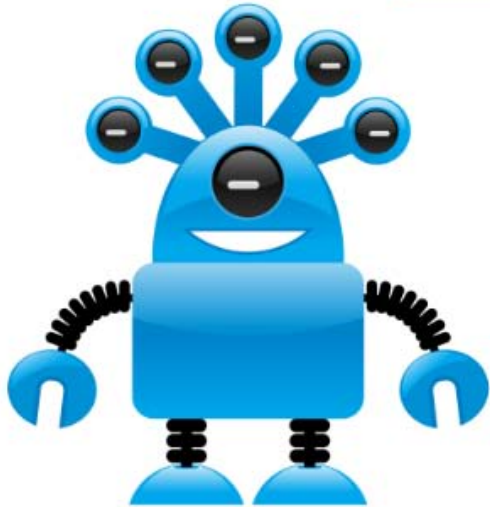
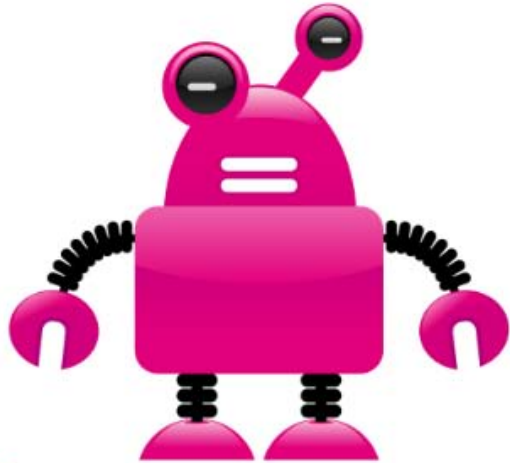
What the customer really needed

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Extra Slides



Analytic vs. Holistic

Analytic

- Better for judging complex artifacts
- Allow for separate evaluations of artifacts with multiple facets
- Provide more detailed feedback
- Take more time to create and use

Bottom line: Better for providing formative feedback

Holistic

- Better for simple artifacts with few facets
- Good for getting a “snapshot” of quality
- Provide only limited feedback
- Do not offer detailed analysis of strengths/weaknesses

Bottom line: Better for giving summative scores