EDUCAUSE SPRINT Participant Chat: Links and Abbreviated Transcript

**Analytics for Teaching, Learning, and Student Success**

July 25, 2012: 2:00 p.m. ET (UTC-4; 1:00 p.m. CT, 12:00 a.m. MT, 11:00 a.m. PT)

**Session Links**

* Sprint Day 1 Webinar: <http://www.educause.edu/library/resources/what-does-analytics-mean-higher-education>
* APGAR: <http://www.gardnercampbell.net/blog1/?p=421>
* Thinking with Data: <http://www.tower.com/thinking-with-data-marsha-lovett-paperback/wapi/100394762>
* How Learning Works: <http://www.cmu.edu/teaching/>
* Self-Check Module 8: <https://docs.google.com/spreadsheet/viewform?formkey=dGhaTlZsWVNoeVd3YkRUU3Z0bnBjUVE6MA#gid=0>
* SNA: <http://research.uow.edu.au/learningnetworks/seeing/snapp/index.html>
* Carnegie Learning- Cognitive Tutor: <http://www.carnegielearning.com/>
* College Miner: <http://www.collegeminer.com>
* CMU Learning Dashboard: <http://oli-qa.andrew.cmu.edu/get-to-know-oli/discover-our-process/>
* EDUCUASEReview Online - July/Aug issue: <http://www.educause.edu/ero>
* EDUCUASEReview Online- Case Studies:<http://www.educause.edu/ero/articles/case-studies>
* Thinking with Data: <http://www.tower.com/thinking-with-data-marsha-lovett-paperback/wapi/100394762>
* How Learning Works: <http://www.cmu.edu/teaching/>
* Digital Dashboard for Learning <http://telstar.ote.cmu.edu/biology/papers/Inventing_DDL.pdf>
* Qualitative Student Outcomes: <http://www.collegeminer.com/web/collegesolution.aspx>
* [Infographic: The Potential of Big Data](http://blog.getsatisfaction.com/2011/07/13/big-data/): <http://blog.getsatisfaction.com/2011/07/13/big-data/?view=socialstudies>
* Data Changes Everything: Delivering on the Promise of Learning Analytics in Higher Education: <http://www.educause.edu/ero/article/data-changes-everything-delivering-promise-learning-analytics-higher-education>
* Sean Lahman Database: <http://seanlahman.com/>
* Predictive Analytics Reporting Project: <http://www.prweb.com/releases/2011/10/prweb8882165.htm>
* LAK12: <http://lak12.sites.olt.ubc.ca/>
* The Predictive Analytics Reporting Framework: <http://www.educause.edu/eli/events/eli-spring-focus-session/2012/predictive-analytics-reporting-framework>
* “Big Data on Campus" Challenge: <http://tinyurl.com/BigDataOnCampus>
* ELI Brief: <http://www.educause.edu/library/resources/learning-analytics-moving-concept-practice>
* RSAC 2012 Keynote: [www.youtube.com/watch?v=7bYhkHTf7IY#t=28m30s](http://www.youtube.com/watch?v=7bYhkHTf7IY#t=28m30s)
* Ideascale link: <http://www.educause.ideascale.com/>
* The Sloan Consortium: <http://sloanconsortium.org/jaln/v16n3/par-framework-proof-concept-initial-findings-multi-institutional-analysis-federated-posts>
* The Sloan Consortium: <http://sloanconsortium.org/jaln/v16n3/predictive-modeling-forecast-student-outcomes-and-drive-effective-interventions-online-co>
* PAR Framework Proof of Concept: <http://sloanconsortium.org/jaln/v16n3/par-framework-proof-concept-initial-findings-multi-institutional-analysis-federated-posts>
* The Predictive Analytics Reporting Framework: <http://www.educause.edu/sites/default/files/library/presentations/ELI124/GS04A/ELI%2BPAR%2BPPoints%2B-%2BUpdated%2B4-11-2012.pdf>
* Common federal reporting standards: <http://nces.ed.gov/programs/ceds/>

**Abbreviated Session Chat with Marsha Lovett**

rick smith: (14:11) Popular does not always equate to correct. What should the correct metric be? Feel is not easy quantifiable.

Charles Edamala (Temple U): (14:12) That is statistics

Theresa: (14:12) Seems like a disconnect between what is being taught and what is being measured at learning

Josh Callahan - HSU: (14:12) also shocking is how rare this type of analyss is

Ed Bowen: (14:12) Reminds me of Eric Mazur

LisaHinchliffe: (14:12) Sorry if I missed something - had to logout and back in but the question i have is how much should we expect? A number needs interpretation.

Nancy: (14:12) reminds me of "Academically adrift" book that showed that there was on avg no increase in critical thinking skills after sophomore year

Brad Weiner-University of Minnesota: (14:13) Is it possible that a 3% gain in learning is a lot?

David U: (14:13) 3% gain at something challenging could be quite positive, compounded semester by semester

Bruce: (14:13) Alexander Astin wrote an interesting review of Academically Adrift.

Brad Weiner-University of Minnesota: (14:13) Agreed @David U

Malcolm Brown: (14:13) All depends on how that 3% is measured

Nancy: (14:13) if you're getting a 3% gain then perhaps college isn't worth it

Theresa: (14:13) Good points, David U and Malcolm!Agree

Kim Arnold: (14:14) LOVE the comment Marsha just mad--LA is PART (only part) of the solution

Malcolm Brown: (14:15) actually on the horizon for LA is the ability to examine student artifacts for signs of learning.

Dan Richard: (14:15) I wonder, how many in this webinar could report the learning gains for thier students last semester - for me, I would have to go back and look, should I be ashamed?

Theresa: (14:16) Teaching a pass/fail course forces an instructor to consider learning measures differently, I think.

Suzanne: (14:17) The best ex I've seen was for Khan academcy - analytics showed a pattern of the concepts/topics - where people slowed down - where they got stuck - shows patterns/places to make a difference thru design to improve that instructional moment

@injenuity: (14:17) This assumes quiz actually measures learning.

Malcolm Brown: (14:17) a big question for LA.Many current projects use measures like the number of times a student accesses the LMS as a \*proxy\* for student engagement.Is there a more direct way to measure engagement?

Kim Arnold: (14:17) YES!Students need to get the information--that doesnt happen much

Sarah Gormley: (14:18) Interesting point Suzanne

LisaHinchliffe: (14:18) I am most excited about empowering students with LA. But, I think students will need more than the data - they will also need guidance on how to understand and act on the data. I doubt it will be any more obvious to them than it is when I get a report as a faculty member. I get data but then what to do with it? :)

Linda Cahill: (14:19) How do you measure creative thinking?

Robert Weston - The College of Westchester: (14:19) @Malcolm using the logs from the LMS is a way to do this. Discussion forum posts, messages sent to other students, etc.

Nancy: (14:19) yes, Lisa, then it depends on how well they design the dashboard

Kim Arnold: (14:19) @malcolmSNA would give a better proxy, I would think

Kim Arnold: (14:20) one of the problems with engagement is that it varies throughout a lecture, course, etc

LisaHinchliffe: (14:20) Nancy - yes and what data is in it. Should a student study more hours or in a different way after learning their scores are lower than others? As a small example.

Bob G. - UT Austin: (14:20) Seems like we're trying to measure the sinking of the titanic, we need a new ship.

Malcolm Brown: (14:20) @robertthat's true, although i have heard some folks maintain it's not a true measure of engagement, only a proxy

Nancy: (14:21) I've seen some reports that are a wall of numbers, and some that involve visualization like Purdue Course Signals

Josh Callahan - HSU: (14:21) @Malcolm I think that would require a new level of instructional design within the courses in the LMS so that more direct signs of engagement get recorded in the database

Dan Richard: (14:22) @ Bob G. - we have the ships we have, no ships, no captains

Kim Arnold: (14:24) wow--I cant believe I have never heard of Carnegie Mellon's learning dsahboard!

Kim Arnold: (14:25) bayesian hierarchical model="machine learning"

Joanne Dehoney, EDUCAUSE: (14:26) @David, I got the feeling that she was providing an example of a folk theory of learning.

David Bantz, U Alaska: (14:26) @dehoney exactly so

Johnny Jameson: (14:26) anyone cocerned with qualitative data as opposed to just the qualitative?

Wayne Nelson: (14:27) CMU has been doing cognitive modeling/intelligent tutoring for many years.

@injenuity: (14:28) Wonder if it collects data from all the other things student is doing on machine, other applications, browser tabs, devices.

Nancy: (14:29) I know it can be done, but can it ETHICALLy be included in analytic data collected by the institution?

Johnny Jameson: (14:29) Thanks Blake

@injenuity: (14:30) @nancy But without it, how do we know what other things in the learning environment contributed to learning?

Kim Arnold: (14:30) @Nancy--ethics?check out my question on Ideascale

Teachers College: (14:31) how much effort goes into building the model that is needed for each course or the skills and learning objectives?

Diane Duell - Millersville University: (14:31) @Nancy - and done by whom?

@injenuity: (14:32) @nancy We can't ethically do it, but I bet Disney can :) Or any kid web site.

Nancy: (14:32) @everyone...maybe we should mine their FB chats, see what titles of library books they're reading, see what their search terms are on Google...

Bethany de Barros: (14:32) during this study, was it recorded how much additional effort the instructor had to exert?

Linda Gilbert 2: (14:33) @Bethany, that is a critical question.

Ed 2: (14:34) Alice... do you have a reference for your 1 hour/hour fed requirement?

Keri Thomas-Whiteside: (14:35) Library records have privacy laws and cannot be released publicly.

@injenuity: (14:35) @nancy and their debit cards, so we know how much redb bull they're drinking :)

D. Christopher Brooks (Minnesota): (14:36) How is this "Learning Analytics" project any different from a typical Scholarship of Teaching and Learning (SoTL) project?

LisaHinchliffe: (14:36) Curious - 3% seemed to be met with a gut level sense that it wasn't very high. Curious how 18% fares in the gut check level. Is that good? Or?

Bob G. - UT Austin: (14:36) 600% improvement, plus the time factor, double WOW

Martha Ostheimer, University of Arizona: (14:37) Did students self-select to do the Adapt/Acc mode

Kim Arnold: (14:37) @D. Christopher Brooks--in my mind LA directly plays into SoTL

Jim Therrell: (14:37) Colorado College would agree with your accelerated results (via 4 wk block scheduling).

D. Christopher Brooks (Minnesota): (14:38) @Kim Arnold: But the data collected was not mined, but systematically collected, right?

Doctor J: (14:38) Yes, great!So let's have a diverse series of statistical tests and analyses and put them in an open source software package

Kim Arnold: (14:40) @D. Christopher Brooks its the pedagoical change --change in teaching and learning as informed by the data collection. data collection is just the means to the end

D. Christopher Brooks (Minnesota): (14:40) I think we need to be careful and not conflate quantitative data analysis with analytics (data mining).

Nicole: (14:41) Did I miss how the adaptive and traditional students were selected?

Doctor J: (14:42) D. is it accurate to say that learning analytics is a process of extracting data, rather than analyzing it?

Linda Cahill: (14:42) Both

Laurie Gibb: (14:42) sounded like it was a random self selection

Blake Uhls: (14:42) quantitative is good but i believe it is meaningless without the qualitative

Brad Weiner-University of Minnesota: (14:42) Student self selection into courses is not random.

Martha Ostheimer, University of Arizona: (14:43) Agreed and this is important in interpreting the results.

D. Christopher Brooks (Minnesota): (14:43) Analytics is data mining - finding patterns, correlations in relationships that you might not know about

Laurie Gibb: (14:43) nope many are manditory... but choice on how to learn may impact results

Iowa - Annette: (14:44) most courses also use supplemental tools like wikis, blogs, lecture capture...all outside of the LMS. What part do these play?

D. Christopher Brooks (Minnesota): (14:44) Seems very different than using theory to ID variables, operationalizing them, measuring them, and analyzing them (which we call research).

Blake Uhls: (14:44) but those patterns are meaningless unless you correlate it to something meaningful

Yolanda Columbus: (14:44) learning analytics is the collection and analysisof data.

Yolanda Columbus: (14:45) The appropriate data analysis method (just like with research) depends on the question

Kim Arnold: (14:45) @yolanda i would argue that is just sophisticated reporting and research--LA has to be ACTED upon (in a meanigful way)

Doctor J: (14:46) Thanks, Yolanda, that confirms my idea that the available statistical tests and analyses should be diverse and easy to use in a tool like this

Yolanda Columbus: (14:47) @kim I would argue that the actions taken based on LA are data-based decisions/actions not LA

Malcolm Brown: (14:48) one advantage to systems like this could be: it would force instructors to articulate clearer learning objectives and in so doing provide the "handle" for analytics

**Specific Questions for the Speaker**

Jorge: (14:10) I give regular online quizzes! Overall, however, I am concerned about the lack of quality time devoted to learning on the part of the students.

Angela van Barneveld: (14:11) What percent would be acceptable as a learning gain?

Gwen Gruenig: (14:11) What is the baseline learning gain?

Jorge: (14:11) 100+ hours per 3 hours class????

D. Christopher Brooks (Minnesota): (14:11) How many courses? Representative sample? N?

D. Christopher Brooks (Minnesota): (14:12) Baseline?

Jorge: (14:12) 100 hours/15 weeks in a typical semester = 6.66 hours per week

Tim - UF: (14:13) course plus outside studying = at least 6 hours

Laurie Gibb: (14:13) Ours is actually just 12 weeks...

D. Christopher Brooks (Minnesota): (14:13) Nice point Jorge - time on task suggests learning gain magnitude may have been appropriate.

rick smith: (14:15) Popular does not always equate to correct. What should the correct metric be? Feel is subjective and not easily quantifiable. Should we really be making fact based decisions based on “feel”?

Prof.Raju Gundala: (14:18) Many times I teach Analytics ...main problem is students learning process is not uniform...In such situation how to measure overall outcome?

Laurie Gibb: (14:18) Is retention of information considered?

Johnny Jameson: (14:19) why does analytics focus more towards quantitative data as opposed to qualitative data?

Bonnie: (14:19) is learning dashboard an off the shelf product, or was it developed at CM?

Dan Richard: (14:20) Should Dashboards provide recommendations for student action relative to the feedback?

Nancy @UIC: (14:20) How do you define learning states ... and what cognitive theory are you using to contextualize your research?

Mark: (14:21) As a student is struggling, where in the process does intervention occur?

Kim Arnold: (14:22) doesnt "practice" bring us awfully close to rote memory?

Nancy @UIC: (14:23) What theorectical basis do you use for the "core architecture of cognition"?

Kim Arnold: (14:25) is this dashboard something accessibly by all students?

Malcolm Brown: (14:28) How does the dashboard calculate the estimated learning state for a course in a discipline that is in a discipline not readily quantified?Such as religion, philosophy, literature?

Fritz Vandover - Macalester College: (14:28) That is a key question, Malcolm.Thank you for raising it.

Gary Kidney: (14:29) How do you do this for things that aren't multiple choice?

Kat Spradley (Campbell University): (14:29) Are you using a learning objective tracking mechanism with this?

Nancy @UIC: (14:29) How are defining skills? Historically this refers to "hand skills" (Dentistry) or athletic skills in physical education or language skills in a foreign language. How are you using it?

Gary 2: (14:31) who is teaching the faculty how to take advantage of this kind of data?

D. Christopher Brooks (Minnesota): (14:31) Are thre predictive results presented in dashboards subjected to validity & reliability testing? Is there a problem of overspecified models?

Paul Schantz CSUN: (14:32) Marsha, what thresholds do you use to determine when to intervene with students identified as struggling?Are dedicated resources assigned to monitor this, or are specific actions left to individual professors?

Andy Saltarelli 2: (14:33) Random assignment?

Winona State University: (14:33) Did you include a control condition - accelerated only w/o the interventions

Alice Knudsen: (14:33) What about the fed's definition of credits--1 hour in class and 2 hours outside of class for each unit of credit?

D. Christopher Brooks (Minnesota): (14:34) How is this "Learning Analytics" project any different from a typical Scholarship of Teaching and Learning (SoTL) project?

Angela van Barneveld: (14:34) Was the outcome possibly impacted by a different approach to instruction?

Susan Collins: (14:35) How much of a cultural change is going to Adapt/Accelerated learning?Resistance from faculty?from students?

Winona State University: (14:35) How do you know if it was the acceleration or the adaptive learning interventions? They are confounded.

Andy Saltarelli 2: (14:36) Agreed, learning method and time are confounded.

Marty Klubeck: (14:37) It looked like the delayed evaluation actually showed increased scores for the traditional and a minor decrease for the Acc/Adap?

LisaHinchliffe: (14:38) What would the ethics be of REQUIRING the acc/alt mode rather than students volunteering for it? Would you think about it differently?

Gary Kidney: (14:38) How is this deeper than an Item Analysis?

Kim Arnold: (14:38) can you provide references for your learning dashboard work?It's fascinating.

Steve Graunke: (14:40) How would your system work with authentic assessment of student artifacts (i.e. papers scored with a rubric)?

Kent Carrico: (14:40) The same instructor for both accelerated and traditional? How specifically were the analytics used in the accelerated?

Patti NDUS: (14:40) Does Carnegie Mellon integrate learning analytics with other analytics?

Gary 2: (14:40) and what about students who are NOT using online lms classes ..... how are you accounting for them?

Jim Therrell: (14:40) Andy, was your learning accelerated Monday night?

Gary Kidney: (14:43) What part of the 15% learning gain is attributable to the dashboard?

Gary Kidney: (14:43) Were students with the largest learning gains more likely to have used the dashboard?

**Abbreviated Session Chat with Ellen Wagner**

Josh Callahan - HSU: (14:48) How can you parse the impact of the a) pedagogy change b) accelerated course format c) learning dashboard and d) student self-selection into a new course format?

Dave Long - University of Iowa: (14:52) Digital exhaust - the things you leave behind after online activity

D. Christopher Brooks (Minnesota): (14:55) Ellen is validating my defintion of analytics (versus research).

Kim Arnold: (14:55) I like! @Dave Long - University of Iowa: Digital exhaust - the things you leave behind after online activity

Joe Sharpe @dwnofthededbook: (14:57) higher Ed NEEDS more business intelligence, thank you! glad I'm not the only one saying it

Dan Richard: (14:57) also like @ Dave Long Digital exhaust

David: (14:59) @ Dave Long -- do you mind if I quote your "digital exhaust" definition in the future?!

Steve Benton: (14:59) Moneyball is a great analogy.

David: (15:00) There are lessons that we can learn from Barry Bonds!

Malcolm Brown: (15:00) indeed

Angela van Barneveld: (15:01) This starts to move beyond the WHAT and starts to investigate the WHY! YAY!

D. Christopher Brooks (Minnesota): (15:02) Wikipedia: "A commonplace distinction between analytics & analysis...is that the former tends to employ methods from the latter."

Iowa - Annette: (15:02) Analytics can never replace an engaged faculty to student interaction. It can help shape some analysis, but...

Dave Long - University of Iowa: (15:02) @David: go ahead, I heard it from someone at the LAK12 (http://lak12.sites.olt.ubc.ca/) conference

David 2: (15:04) That's just pessimistic, Annette.Everyone knows our jobs can be automated and teachers will be replaced by robots some day

Iowa - Annette: (15:05) @David2 well, ok, let me say something optimistic...ummm Analytics are awesome if you have someone who really understands what to do with the data. how's that?

David Bantz, U Alaska: (15:05) personally prefer Gary US Bonds - "School is Out"

Joe Sharpe @dwnofthededbook: (15:06) That's the same as saying, Teaching is awesome if you have someone who really understands how to teach and how to evaluate their teaching.

David U: (15:07) interesting that the trend seems to be using this for interventionswithin the existing framework, when a full view of the info might point more to changing the framework of how we do things

David 2: (15:07) The anticipation is killing me!What affects student success!Just say it!!!

Joe Sharpe @dwnofthededbook: (15:07) You can add qualifiers to everything, but being engaged is not a necessary condition for successful evaluation

D. Christopher Brooks (Minnesota): (15:08) @David 2: Time on task; student aptitude; & student effort. That's what learning theory tells us.

David U: (15:09) and yet, the one thing we never seem to change is the way we structure the time of courses

Malcolm Brown: (15:09) The ELI's June webinar was on this project.Joining us was the statistican for the project, Sebastian Diaz, and Hae Okimoto from the U of Hawaii

kelly: (15:09) I have joined late, but have you covered how these techniques help learning?

David 2: (15:11) 'Institution specific factors' huh?So anticlimactic!Which factors???

Cheryl Murphy: (15:12) @ Malcolm: Thanks for the link to the ELI recording from Sebastian Diaz

D. Christopher Brooks (Minnesota): (15:12) Predicting student failure is not the same thing as predicting student success.

D. Christopher Brooks (Minnesota): (15:12) OVERSPECIFICATION: "For students not at-risk of disenrollment, institution-specific factors predicted student success."

Iowa - Annette: (15:12) @ D. Brooks...LIKE

Jack Steehler-Roanoke College: (15:13) What definition of "concurrent courses" are we talking about?

Yolanda Columbus 2: (15:13) Student Success one theory Holland's Theory. Student's success is psychological and sociological (environments)

Kim Arnold: (15:14) @D. Christopher Brooks here here! Predicting student failure is not the same thing as predicting student success.

David 2: (15:14) I'd be pretty happy if I could just get my students to not fail

D. Christopher Brooks (Minnesota): (15:14) Again, one can predict > 40% of student success with GPA and ACT scores. #Institutionalvariationbedamned

Miary Andriamiarisoa: (15:17) We are talking about big data, but if we can deal with small data and find usefullness with them, that would be a winner!

Yolanda Columbus 2: (15:18) Contextual details are important.Quantitative data and equations do not tell the whole story.The devil is in the details.

Andy Saltarelli 2: (15:18) Great point Miary

Dave Long - University of Iowa: (15:19) Very true Ellen.If we're collecting data about students, we should share that data with students

Tim - UF 2: (15:19) even small schools have "big data"

Joe Sharpe @dwnofthededbook: (15:19) Great presentation Ellen, thank you!

Malcolm Brown: (15:19) That detail is explored in the ELI webinar

David: (15:20) Why not have a student dashboard FOR students?

Miary Andriamiarisoa: (15:20) @David: we are implementing just that as we speak.

David: (15:21) @Miary: We have a dashboard for students in our current LMS. No fuss on our part!

Miary Andriamiarisoa: (15:22) @David Which LMS is that?

David: (15:23) @Miary: Instructure Canvas. Analytic dsahboards accessible by faculty and students in the same course. First iterations, but we are hopeful for improvements along the way!

Robert Weston - The College of Westchester: (15:25) Changed computers from yesterday, does anyone have the link for the 'idea board' area?

Sondra Smith EDUCAUSE: (15:25) The PAR Framework Proofof Concept: Initial Findings ...http://sloanconsortium.org/jaln/v16n3/par-framework-proof-concept-initial-findings-multi-institutional-analysis-federated-posts

Julie Lirot: (15:26) The idea board is in my previous post.I hit return accidentally, sorry.

Kim Arnold: (15:26) i just connected--Ellen's talk meshed well with the ideascale topic of common data meanings for data

Nancy: (15:27) this is my favorite talk so far

D. Christopher Brooks (Minnesota): (15:27) But if X, Y, and Z predict at one institution and A, B, C at another, how does this improve our knowledge of how students learn?

Cindy Mac: (15:27) Absolutely fantastic session

Jerry CBC Pasco, WA: (15:28) @John Grossman - but maybe other models, such as WGU's where classes are taken serially rather than concurrently may address this problem

**Specific Questions for the Speaker**

Gary Kidney: (14:53) But why does our software lag behind what is available in other business and industries?

Juan Olvera Valencia College: (14:53) education, training?

Alice Knudsen: (14:59) resistance to quantifying learning

Leif Andre Nelson: (15:01) "optimizing educational experience . . .not sure if that is what we should look at" - shouldn't we always?

Martin: (15:06) Where can one find these well defined metrics that were used against the monolithic dataset you extracted in the based above?

Jorge: (15:06) Are there adata on the relation (if any) of using of Learning Analyticsand: a)time on task and/or b) better performance even if the time on task remains the same (in my experience, 1-2 hours/week per 3 unit class)?

Novita Rogers (Pepperdine): (15:07) Can you share what the 33 common variables were?

Ali: (15:07) What do you mean by student records? Personal information or learning records? What was the sample size?

Tim - UF: (15:08) are the data available for others to explore?

Suzanne: (15:10) what defined "at-risk" SES?

David 2: (15:10) How were students categorized as 'at-risk'?

Nancy H: (15:10) Students often are required to take a minimum courseload in order to qualify for financial aid, which is vital for many at-risk students. How would that be addressed?

Laurie Gibb: (15:12) Did you look at finances as a reason for disenrolment?

kelly: (15:20) Surely analytics can help administrative functions. But how can they really help learning?

University of Rochester: (15:27) Have you talked with the folks at CEDS about a common data model?