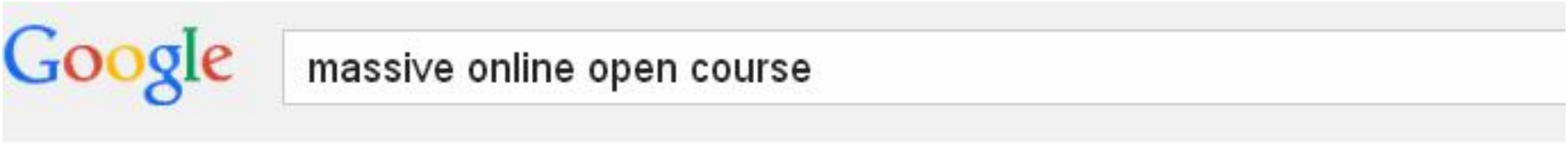
МІЖНАРОДНА НАУКОВО - МЕТОДИЧНА КОНФЕРЕНЦІЯ
Актуальні питання організації навчання іноземних студентів
в європейському освітньому просторі
14 травня 2014 р.

ВПРОВАДЖЕННЯ МЕТОДИЧНИХ ЗДОБУТКІВ МАСОВИХ ВІДКРИТИХ ОНЛАЙН КУРСІВ У НАВЧАЛЬНУ ПРОГРАМУ УКРАЇНСЬКОГО УНІВЕРСИТЕТУ

Юрій Скоренький
кафедра фізики ТНТУ
skorenkyy@tstu.edu.ua



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A massive open online course (**MOOC**) is an online course aimed at unlimited participation and open access via the web. In addition to traditional course ...
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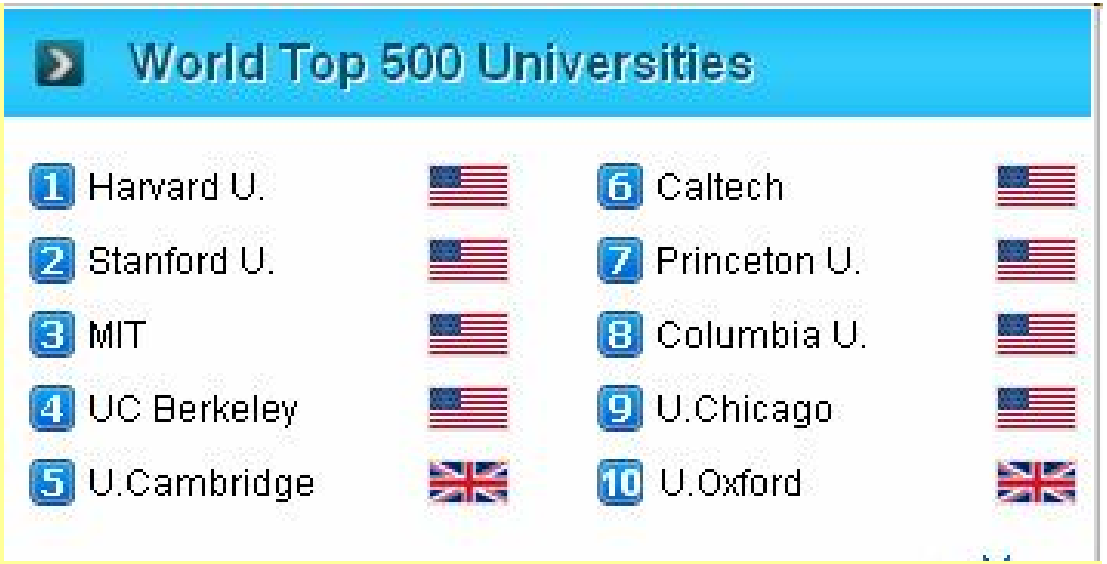

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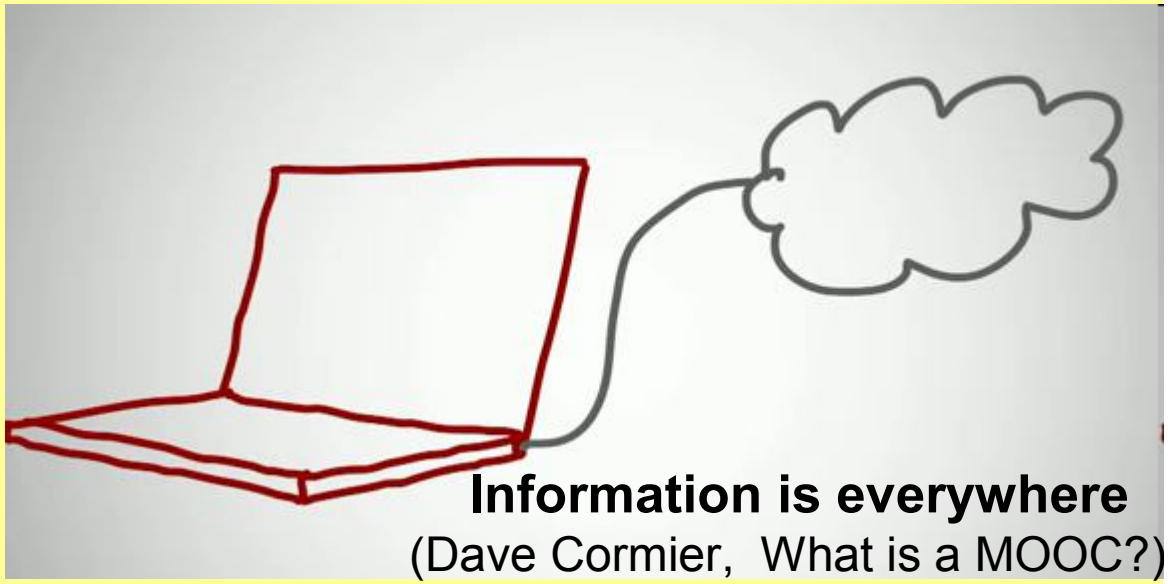
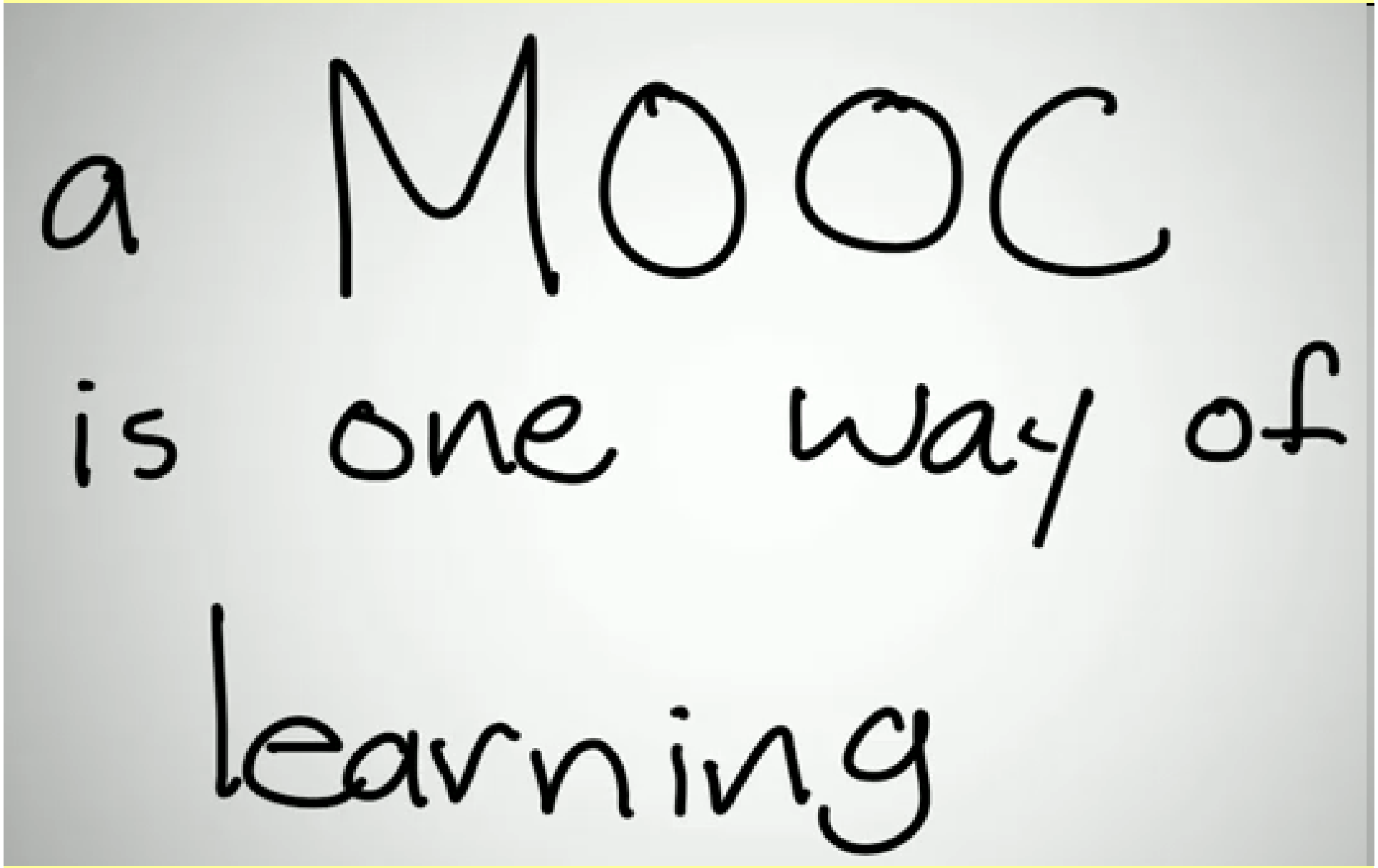


Information is everywhere

(Dave Cormier, What is a MOOC?)

http://www.youtube.com/watch?v=eW3gMGqcZQc



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MITOPENCOURSEWARE
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Course Finder

Topic | MIT Course Number | Department

TOPIC	SUB-TOPIC	SPECIALTY
Business	Aerospace Engineering	Algorithms and Data Structures
Energy	Biological Engineering	Artificial Intelligence
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Fine Arts	Civil Engineering	Computer Networks
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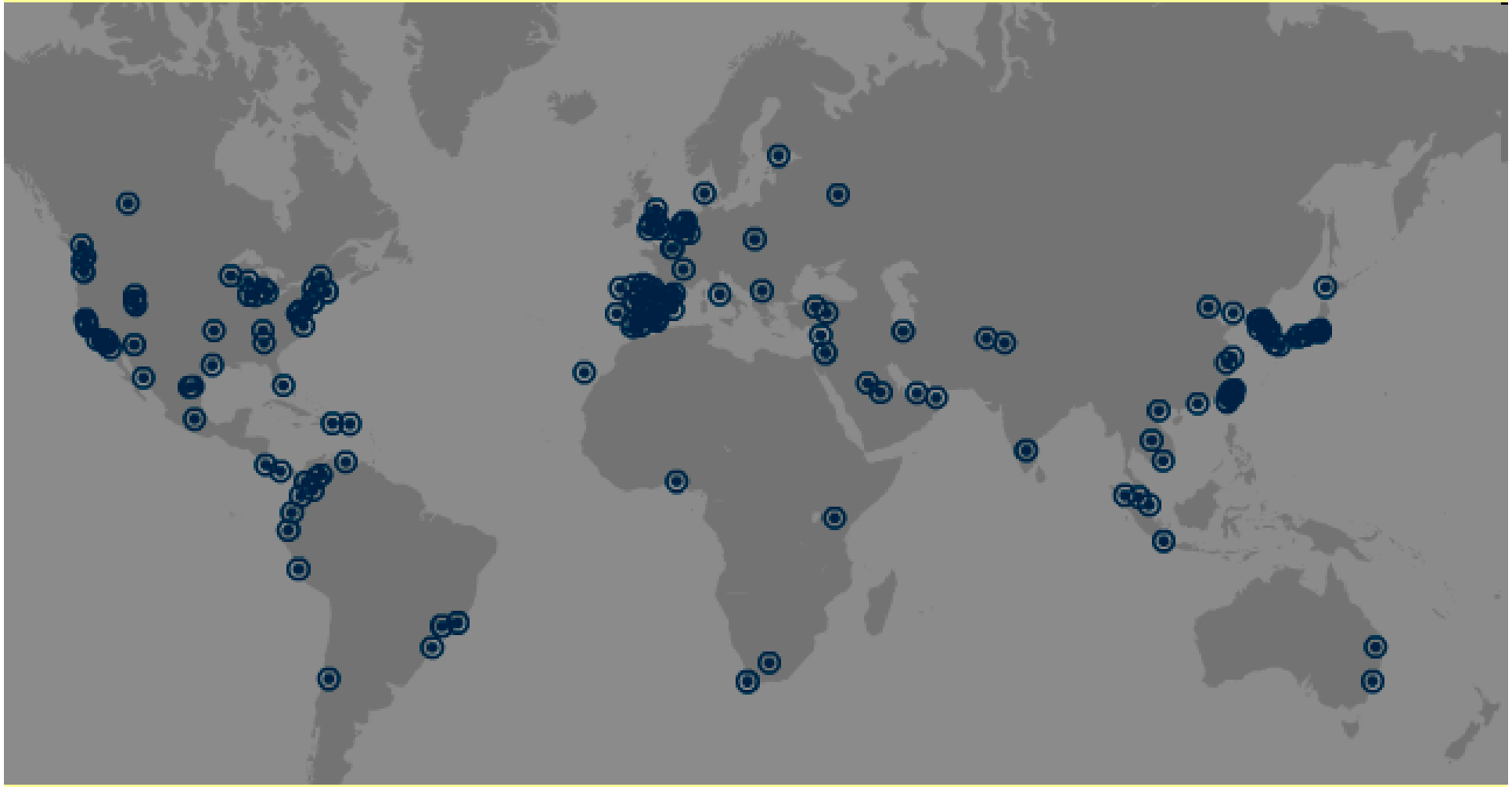


http://www.ocwconsortium.org/

TED
Ideas worth spreading

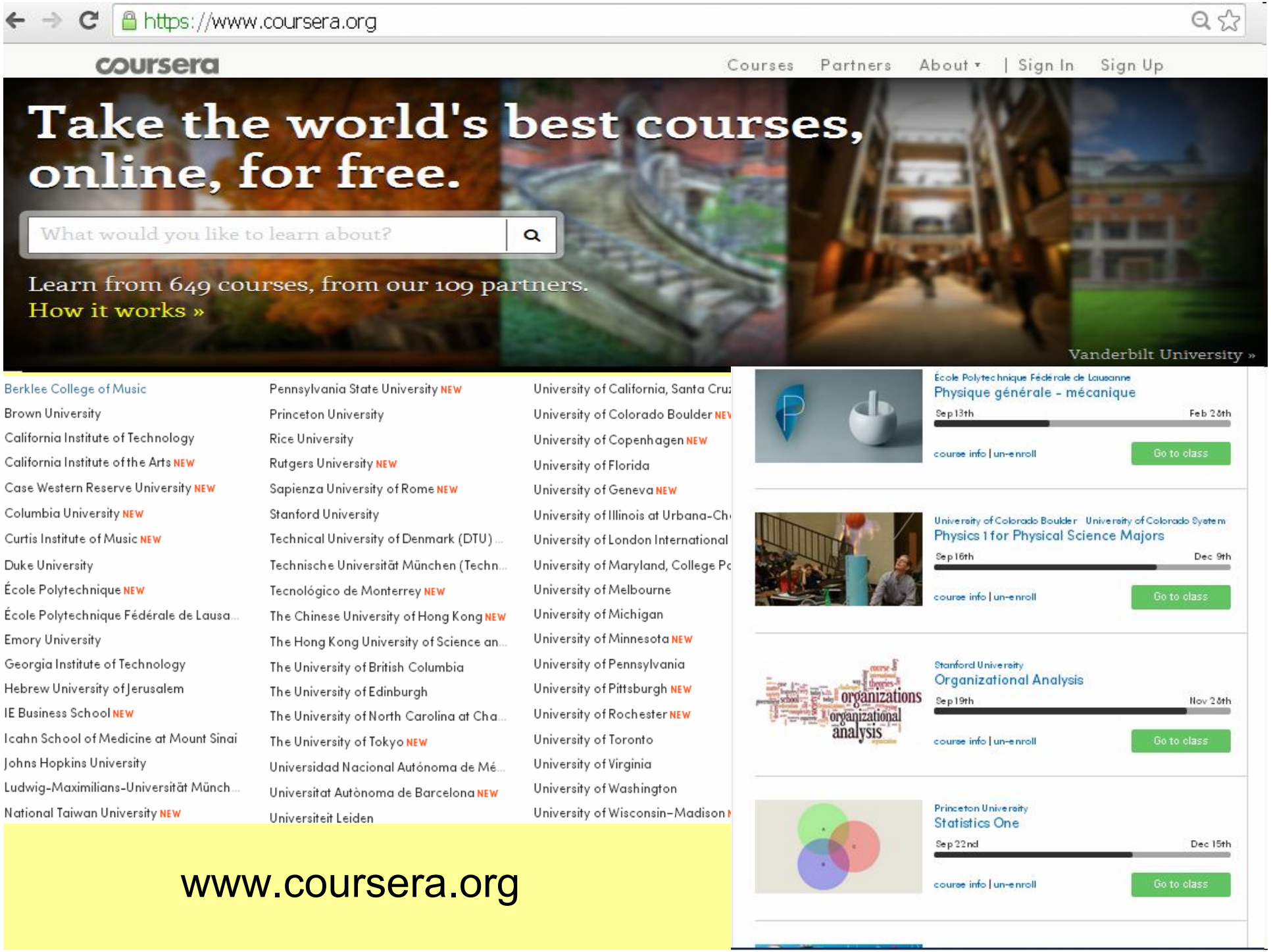
Salman Khan:
Let's use video to reinvent education
Березень 2011 р.

http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html

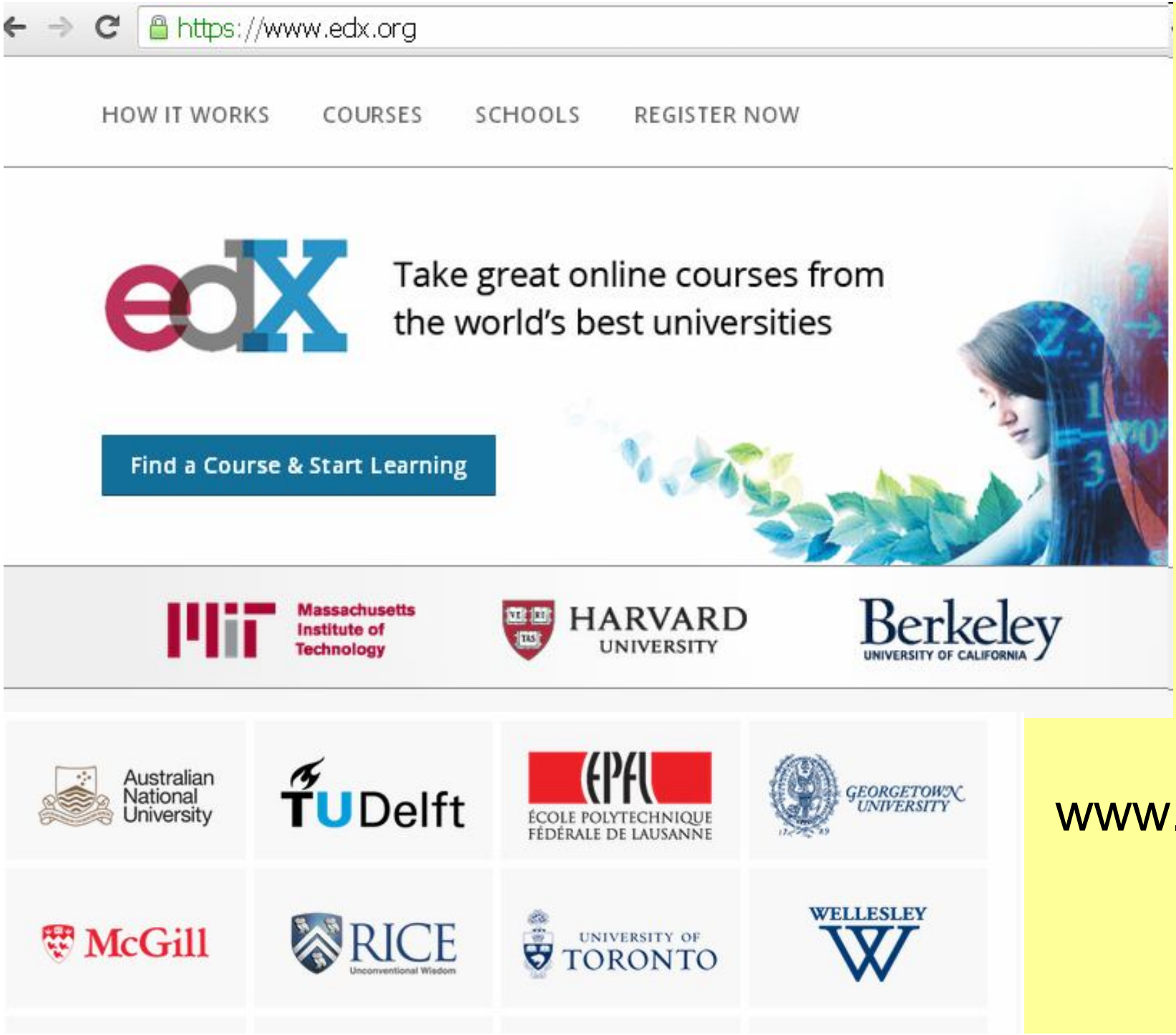
TED
Ideas worth spreading

Daphne Koller:
What we're learning from online education
Червень 2012 р.

www.ted.com/talks/daphne_koller_what_we_re_learning_from_online_education.html



www.coursera.org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www.edx.org

Course Evaluation | Taking the measure of MOOCs

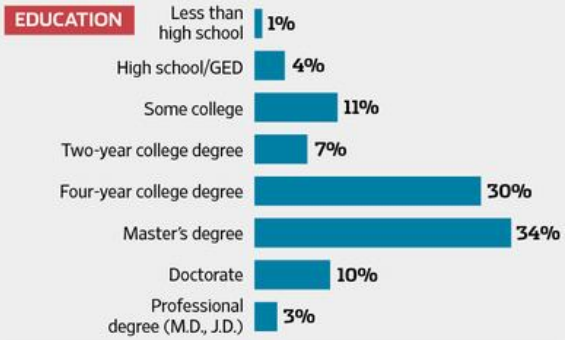
THE WALL STREET JOURNAL.

Who the Students Are

Demographics of people taking MOOCs on Canvas Network

Average age ..... 27.2 Male..... 47% Female..... 53%

EDUCATION

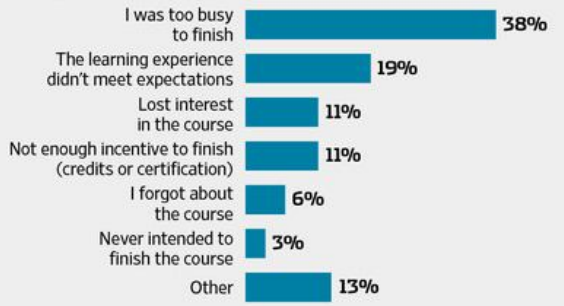


Signing On

Surveyed students said their main reason for taking a course was:

Logging Off

Forty-four percent of those surveyed said they didn't finish their course. The biggest reason:



Source: Qualtrics and Instructure survey of 1,834 people who registered to take a MOOC on Canvas Network in May and June 2013

230 million: Number of data points collected about student activities in a single edX course

11 minutes: Median time it takes for a response to emerge to a question posted in an edX course forum

55%: Pass rate for a traditional intro engineering class at San Jose State

91%: Pass rate for the same class taught with online MOOC component

Midnight to 2 a.m.: Peak hours for viewing edX lecture videos

52%: Among students who earned pass certificates in an edX course, the share who were active in discussion forums

2.2 pts: Increase in final course scores vs. comparable students, on a 100-point scale, from spending one more hour on homework in the edX course

In one hybrid MIT class, most students said they played lectures at **1.5 x** the recorded speed while tracking the transcripts

1.3: Total number of edX students to date, in millions; includes 158,000 from India and 117,000 from Africa

13: Age of youngest edX student

Sources (from top): edX (2); San Jose State University (2); edX; MIT Teaching and Learning Laboratory and Andrew Ho, Harvard (2); edX (3)

Passing Grades

The percentage of students who earned a C or better in these Udacity MOOCs and their traditional counterparts at San Jose State University

	SPRING 2013 MOOC	SUMMER 2013 MOOC	TRADITIONAL ON-CAMPUS COURSE*
Entry-level math	24%	30%	46%
College algebra	25%	73%	65%
Elementary statistics	50%	83%	76%

*Based on past six semesters

Note: Some students in the spring math and algebra MOOCs had previously failed the campus-based versions of the courses. The overall completion rate for MOOCs fell to 60% in the summer from 83% in the spring.

Source: San Jose State University

Keep It Short

The median amount of time certificate-earning students spent watching a video vs. video length (in minutes) in four math/science MOOCs from edX

VIDEO LENGTH	TIME SPENT WATCHING
0-3 minutes	1.04
3-6 minutes	4.16
6-9 minutes	6.25
9-12 minutes	5.71
12-15 minutes	4.42
15-40 minutes	3.30

Source: Philip Guo, University of Rochester/edX

Newbies and Old Hands

Courses from the MOOC provider Coursera with the youngest and oldest students

YOUNGEST	AVERAGE AGE
Probability	28.9
Computer Architecture	30.0
Contraception: Choices, Culture and Consequences	30.3
Introduction to Tissue Engineering	30.3
C++ for C Programmers	30.4

OLDEST	AVERAGE AGE
Health Policy and the Affordable Care Act	45.1
The Kennedy Half-Century	44.3
Growing Old Around the Globe	44.1
Modern and Contemporary American Poetry	42.8
Archaeology's Dirty Little Secrets	42.7

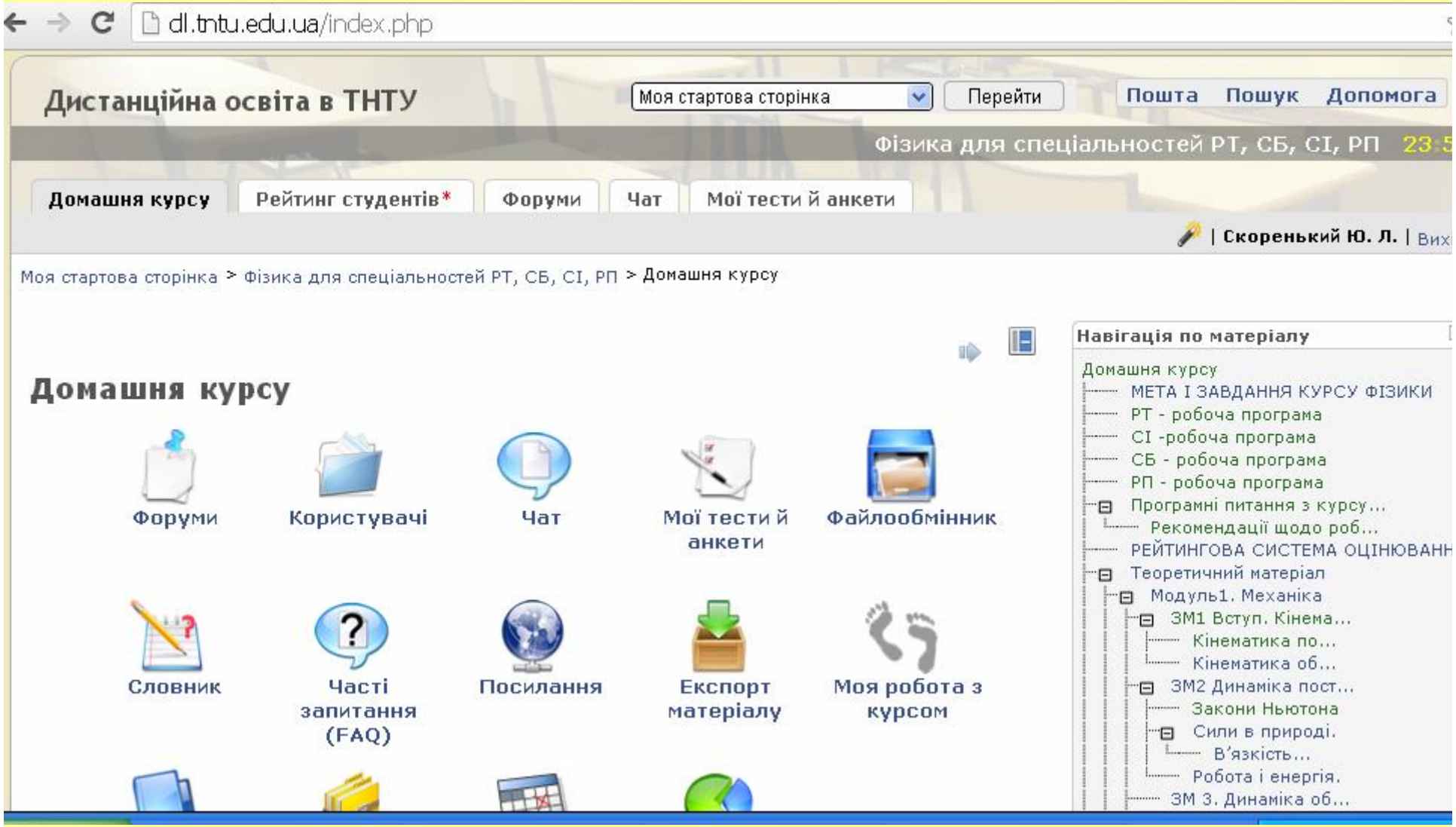
Source: Coursera

The Wall Street Journal

An Early Report Card on Massive Open Online Courses

MOOCs promise to change the face of higher education, one giant classroom at a time. Here's what they're doing well—and how they can do better.

By Geoffrey A. Fowler
October 8, 2013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Пошта
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Домашня курсу
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Користувачі
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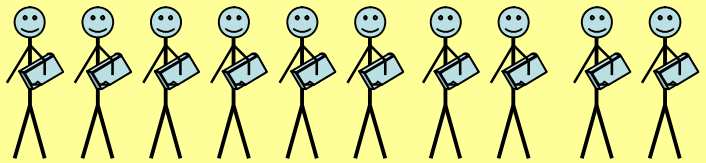
Мої тести й анкети
Файлообмінник
Словник
Часті запитання (FAQ)
Посилання
Експорт матеріалу
Моя робота з курсом
Навігація по матеріалу
Домашня курсу
МЕТА І ЗАВДАННЯ КУРСУ ФІЗИКИ
РТ - робоча програма
СІ -робоча програма
СБ - робоча програма
РП - робоча програма
Програмні питання з курсу...
Рекомендації щодо роб...
РЕЙТИНГОВА СИСТЕМА ОЦІНЮВАНН
Теоретичний матеріал
Модуль1. Механіка
ЗМ1 Вступ. Кінема...
Кінематика по...
Кінематика об...
ЗМ2 Динаміка пост...
Закони Ньютона
Сили в природі.
В'язкість...
Робота і енергія.
ЗМ 3. Динаміка об...

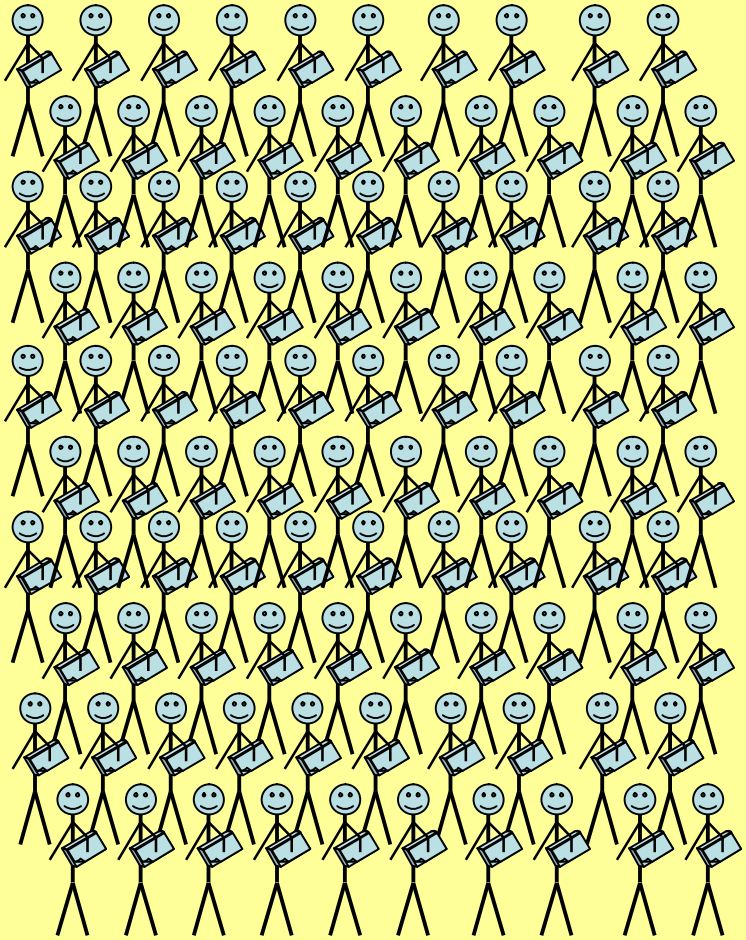
Atutor

group



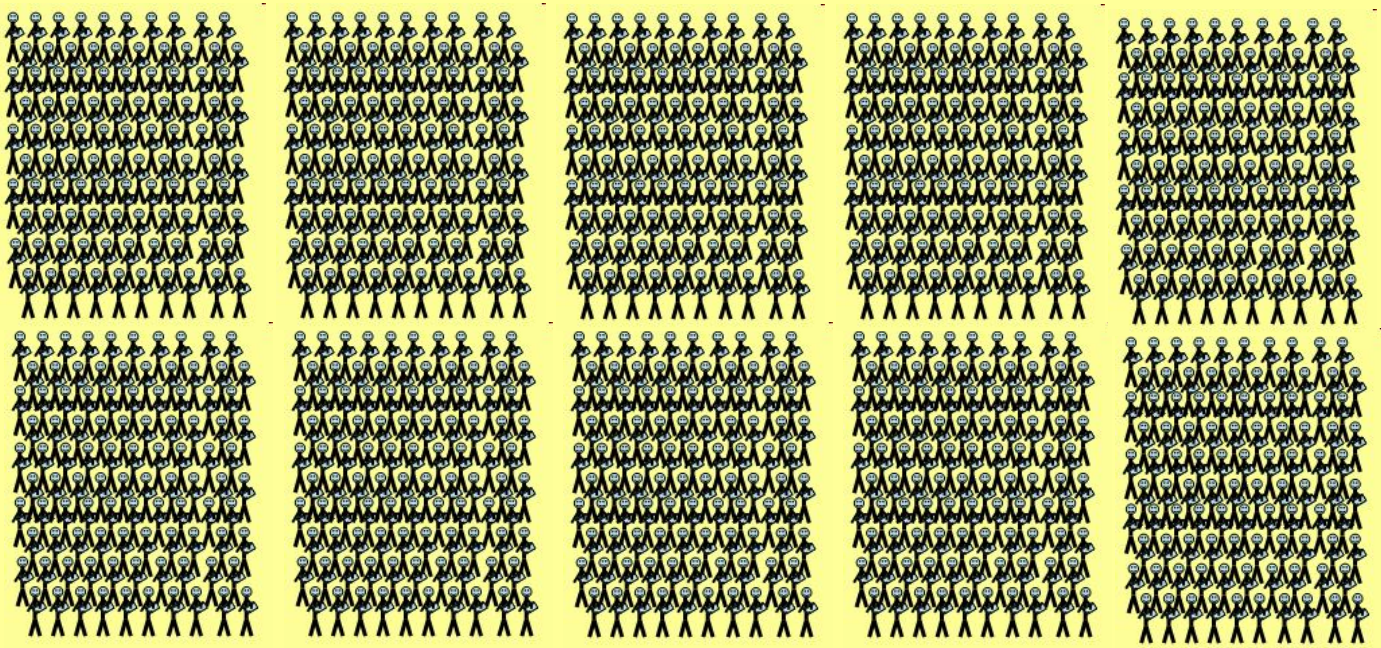
10

class

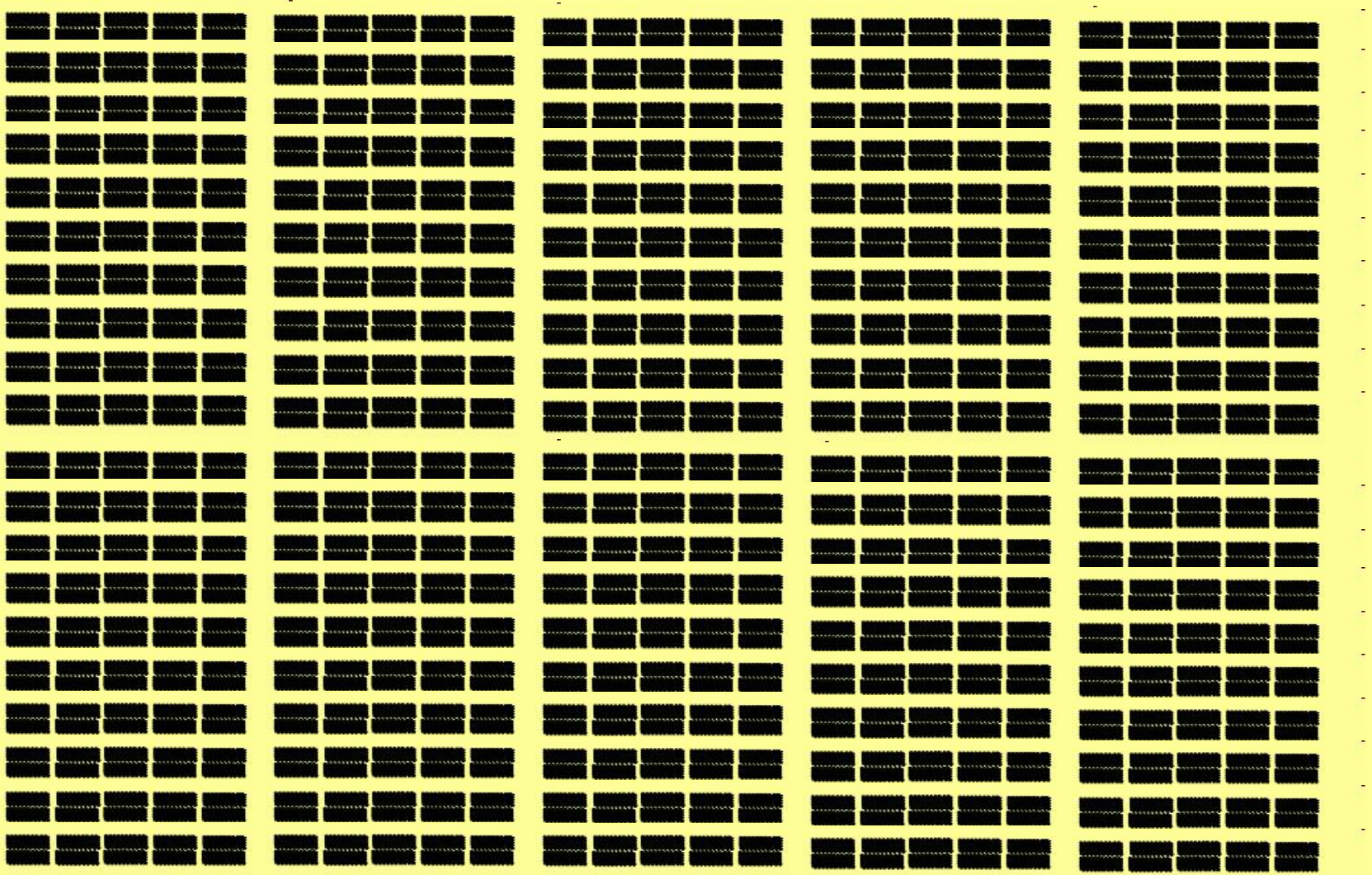


$10^{2}=100$

open online course $10^3 = 1000$



Massive open online course $10^5 = 100000$



Мої тести й анкети

dl.tntu.edu.ua/mods/_standard/tests/take_test.php?tid=2122

Запитання 1: Множина варіантів

На скільки зміниться фаза за час одного повного коливання?

- $\pi/2$
- 2π
- 0;
- π
- $\beta = 2c^{-1}$
- **Залишити без відповіді**

Сталися наступні помилки:

Списуєте ?)
Закінчіть спочатку проходження тесту

Запитання 2: Множина варіантів

1 Балів

Гармонічне коливання матеріальної точки представлено рівнянням $x = A\sin(\omega t + \varphi)$ Який вираз визначає прискорення цієї точки в початковий момент часу?

- $A\omega^2$
- $-A\omega^2 \sin(\omega t + \varphi)$
- $A\omega\cos\varphi$
- $-A\omega^2 \sin\omega t$
- $A\omega\cos(\omega t + \varphi)$
- **Залишити без відповіді**

Пройшло часу:

8%

Studying Learning in the Worldwide Classroom: Research into edX's First MOOC

- Lori Breslow, David E. Pritchard, Jennifer DeBoer, Glenda S. Stump, Andrew D. Ho, and Daniel T. Seaton

VOLUME EIGHT | SUMMER 2013
www.RPAjournal.com
ISSN # 2161-4210

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www.virginiaassessment.org

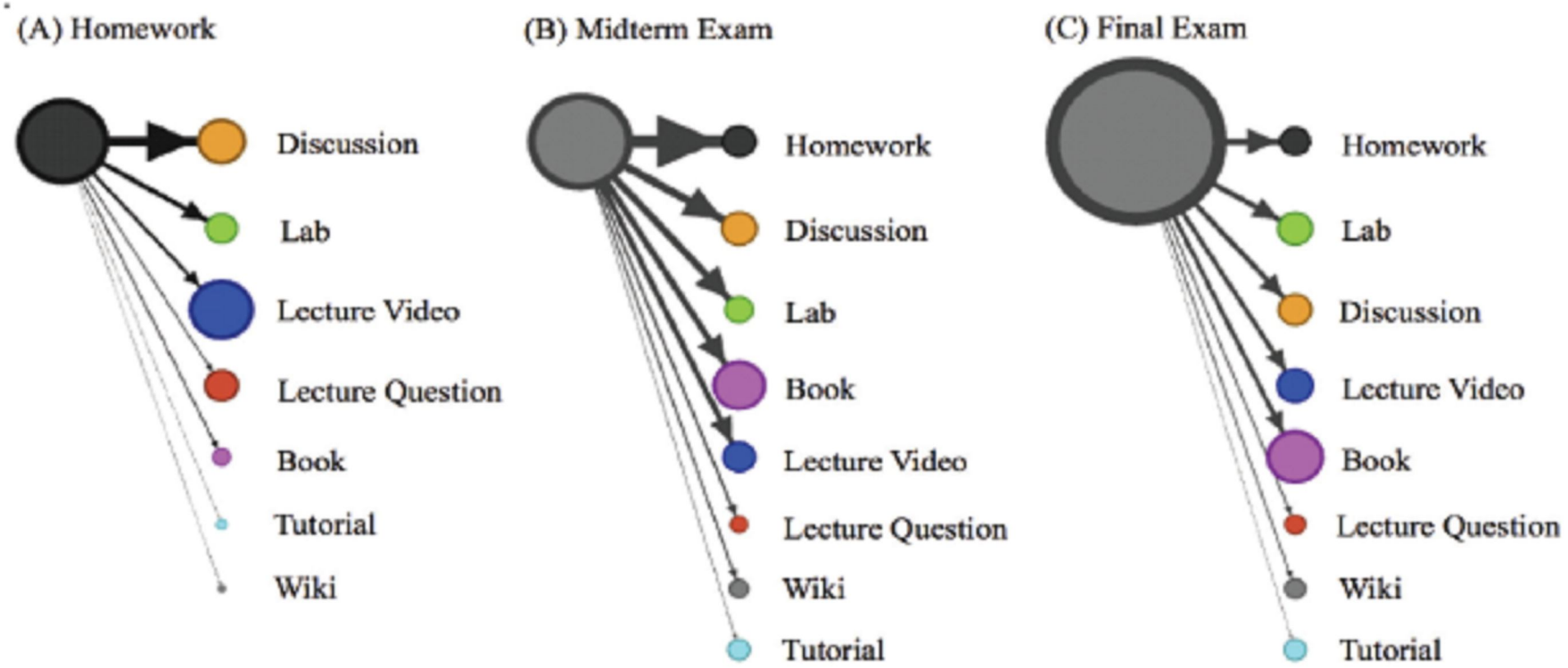


Figure 5. *Which resources are used while problem solving? Activity (hits), registered by thicker arrows, is highest for resources listed at the top. Node size represents the total time spent on that course component.*

Нове в методах оцінювання (крім стандартних тестів):

1. Комплексні (“ступінчасті”) задачі / тести;
2. Взаємне оцінювання письмових робіт (відкритих тестів);
3. Кваліфікована участь в форумах;
4. Командні / індивідуальні онлайн-проекти.

Все - з автоматизованим оцінюванням!

1. Тести

LS4.HW1 (3 points possible)

A proton is released from rest at the origin in a uniform electric field in the positive x direction with magnitude $850\ N/C$.

What is the change in the electric potential energy of the proton-field system when the proton travels to $x = 2.50m$?

- $+3.40 * 10^{-16}\ J$
- $-3.40 * 10^{-16}\ J$
- $+2.50 * 10^{-16}\ J$
- $-2.50 * 10^{-16}\ J$

Help

Check Save *You have used 0 of 2 submissions*

LS4.HW2 (3 points possible)

The electric potential at $x = 5.00\ m$ and $y = 3.00m$ is $120\ V$ and the electric potential at $x = 7.50\ m$ and $y = 8.00\ m$ is $180\ V$.

The electric field is along the axis between the two points and is uniform. What is the magnitude of the Electric Field in N/C in this region?

Help

In a uniform E field the relationship between the field magnitude and change in potential is $\Delta V = -Ed$ Use the pythagorean theorem to find the separation between the two points, and the potential difference of 60V.

Check Save *You have used 0 of 3 submissions*

MATH EXPRESSION INPUT (5.0/5.0 points)

A spherical capacitor consists of a spherical conducting shell of radius b and charge $-Q$ concentric with a smaller conducting sphere of radius a and charge $+Q$. Enter an expression for the capacitance of this device in terms of Coulomb's Constnat k_e (just type "k") and the two radii a and b. HINT: you may need to apply a negative sign to your final expression to be sure the capacitance comes out positive! Look at your answer and think about which radii is larger.

C =

a*b/(b-a)/k

Help

$$\frac{a \cdot b}{(b-a) \cdot k}$$

Show Answer(s)

You have used 3 of 3 submissions

Show Discussion

New Post

Перевірка аналітичних формул!

Lecture 8: Polarization and Dielectrics
Lecture

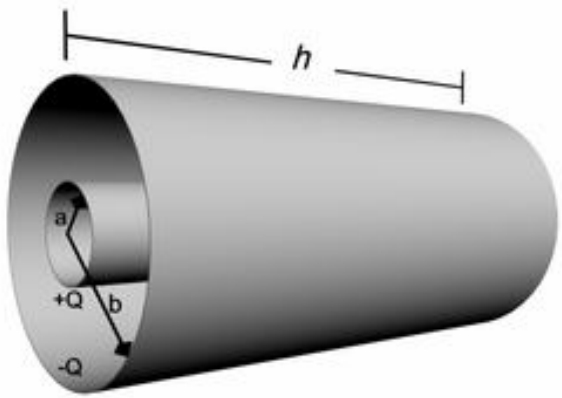
Lecture 9: Current, Resistivity and Ohm's Law
Lecture

Problem Solving
Problem Solving

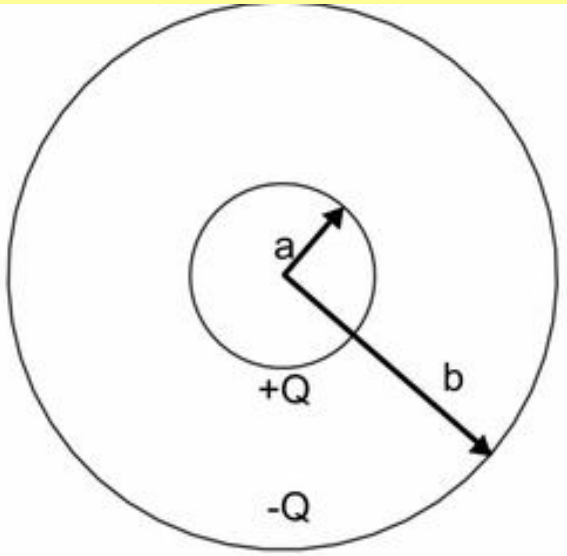
HW3
Homework due March 15, 2013

Charge by Induction Simulation
TEALsim due March 15, 2013

- Week 4
- Midterm 1
- Week 5
- Week 6
- Visualization
- TEALsim



(a) Fig. 1



(b) Fig. 2

(a) What is the capacitance per unit length? Express your answer in terms of a, b and ϵ_0 (enter epsilon_0 for ϵ_0).

2*pi*epsilon_0/ln(b/a) ✔

$$2 \cdot \pi \cdot \frac{\varepsilon_0}{\ln\left(\frac{b}{a}\right)}$$

2*pi*epsilon_0/ln(b/a)

$$2 \cdot \pi \cdot \frac{\varepsilon_0}{\ln\left(\frac{b}{a}\right)}$$

Question 1

Simplify the expression

$(-6x^2 + 9x) - (2x + 5 - 3x^2) + (7x^2 - 6x + 2)$

to the form $Ax^2 + Bx + C$.

Enter your answer as a list of the values A B C separated by spaces.

4 1 2

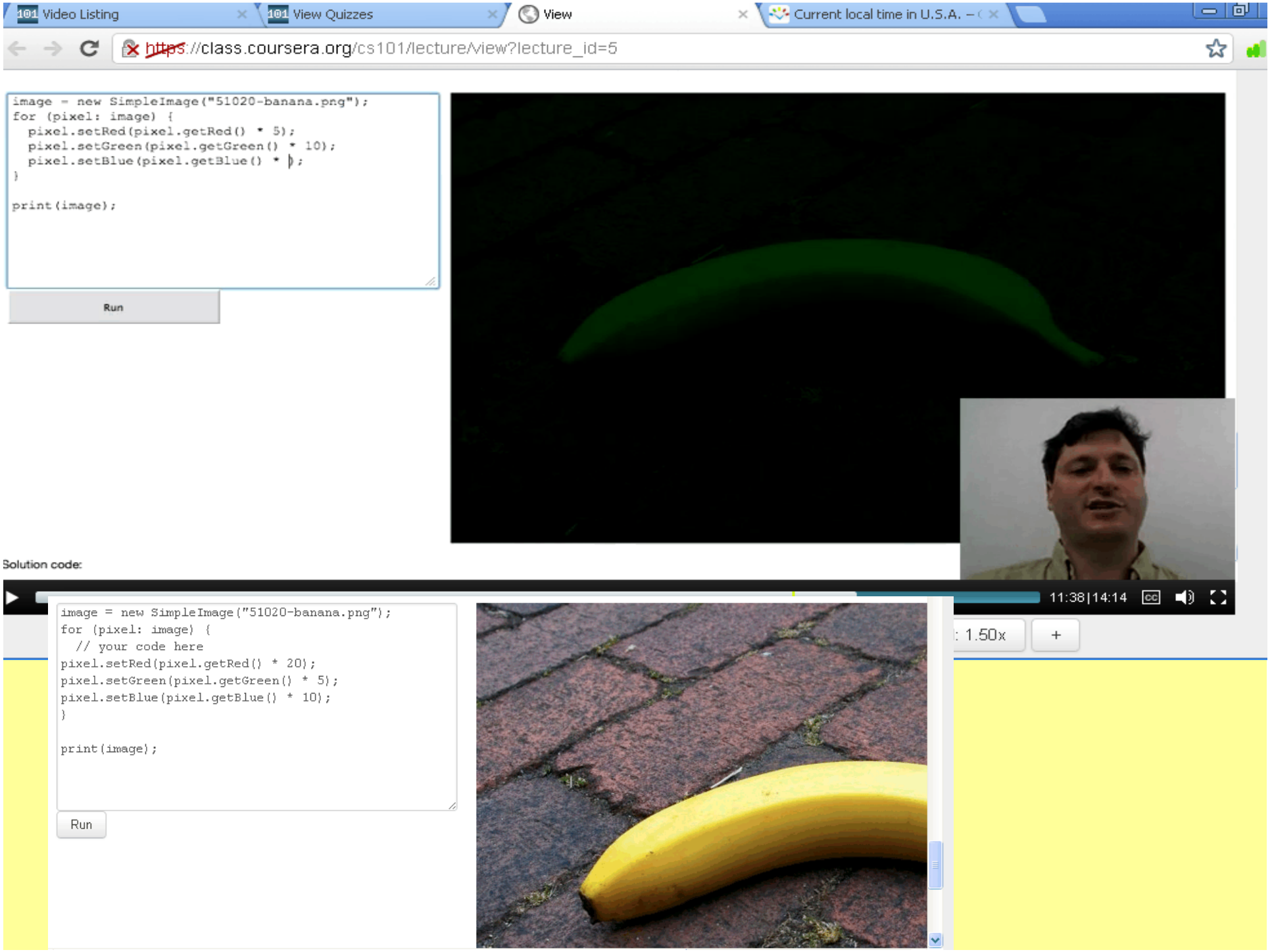
Question 1

Simplify $(2\sqrt{7} + 3\sqrt{2})(\sqrt{7} - 5\sqrt{2})$. For submitting an answer with symbols, please follow these instructions: "/" means division, "*" means multiplication, and "^" means exponentiation. For adding a square root symbol, use sqrt (NUMBER). Please click the "preview" button for each question prior to submitting the answer so you can check that you've entered the right math expression.

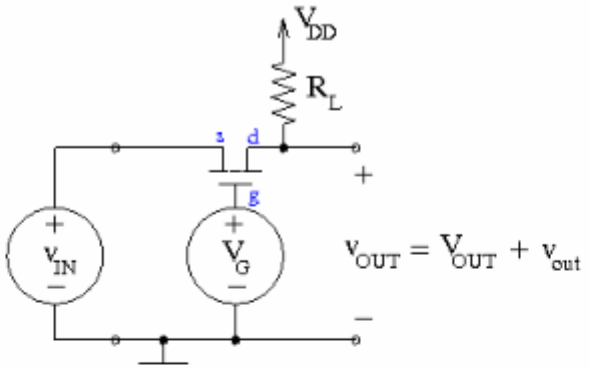
-7*sqrt(14)-16

Preview

Your submission is equivalent to: $-7\sqrt{14} - 16$


Video Listing
View Quizzes
View
Current local time in U.S.A. –
https://class.coursera.org/cs101/lecture/view?lecture_id=5
image = new SimpleImage("51020-banana.png");
for (pixel: image) {
pixel.setRed(pixel.getRed() * 5);
pixel.setGreen(pixel.getGreen() * 10);
pixel.setBlue(pixel.getBlue() *);
}
print(image);
Run
11:38 | 14:14
1.50x
+
Solution code:
image = new SimpleImage("51020-banana.png");
for (pixel: image) {
// your code here
pixel.setRed(pixel.getRed() * 20);
pixel.setGreen(pixel.getGreen() * 5);
pixel.setBlue(pixel.getBlue() * 10);
}
print(image);
Run

Вбудовані інструменти аналізу електричних схем!



The MOSFET's parameters are: $V_T = 1.1$V and $K = 0.009$A/V^2. The resistance o
$R_L = 220.0\Omega$

If in the application of this circuit the input voltage v_{IN} may swing between 1.0V
the minimum value of the bias voltage V_G, in Volts, needed to keep the MOSFET

2.1 ✔

Assume $V_G = 4.0$V, and the input swing is as specified.
What is the minimum value of the power-supply voltage V_{DD}, in Volts, needed to
saturation?

2.9 ✖

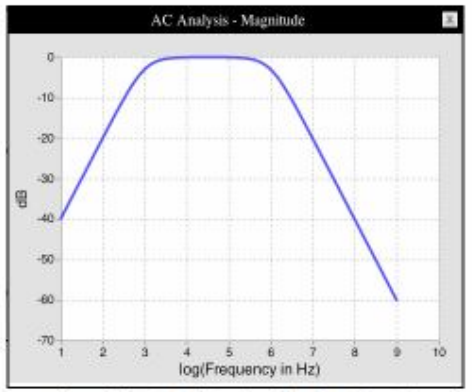
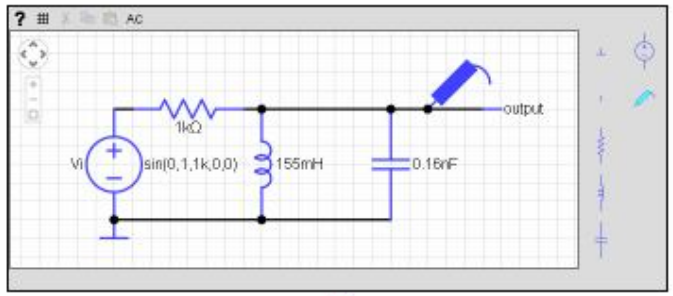


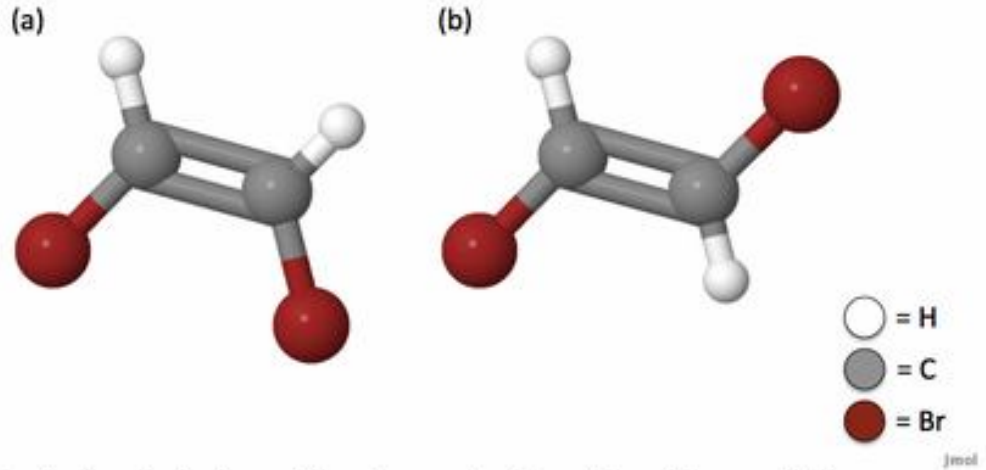
Figure 3. AC analysis of a band-pass filter (magnitude plot)

Hint: Cascade a low-pass and high-pass filter – their effects are cumulative. We've just finished analyzing one of each above! Complete the circuit below, adding the appropriate circuitry between the voltage source and V_o, the node labeled "output" in the schematic.



✔

S8E4: POLAR MOLECULES



Consider the molecules shown, which are known as *cis*- and *trans*-dibromoethene, respectively.

(a) Which is the correct order of bond dipole moment, from weakest to strongest:

- H-C, C-C, C-Br
- C-Br, H-C, C-C
- C-C, H-C, C-Br
- C-C, C-Br, H-C ✖

(b) Which forms of dibromoethene are polar molecules?

✔
- ☑ *cis*
- ☐ *trans*

Check | Show Answer

S8E4: DETERMINING PERCENT IONIC CHARACTER

Calculate the percent ionic character of the $\mathrm{Al\text{-}F}$ bond. Recall that the $\mathrm{Al\text{-}F}$ bond is a polar covalent bond.

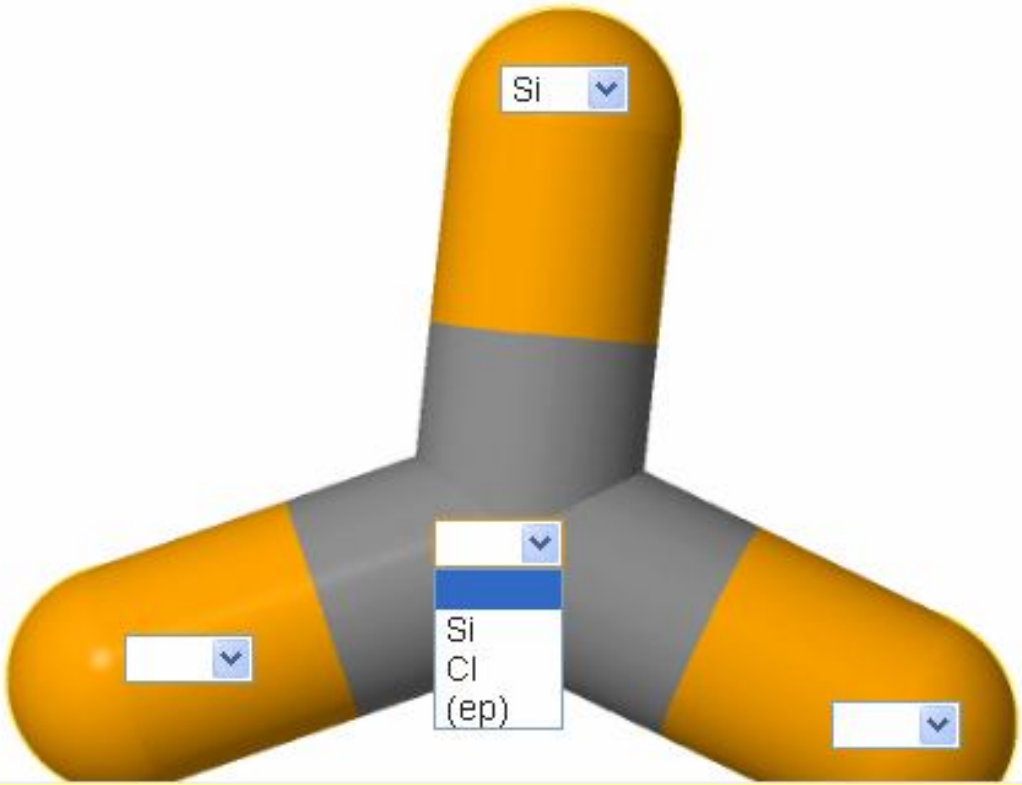
4 ✖

Конструктор

S10E3: SILICON TETRACHLORIDE

Silicon (Si) reacts with chlorine (Cl), forming the compound $\mathrm{SiCl_4}$.

(a) Construct the structure of $\mathrm{SiCl_4}$.



Linear
Trigonal Planar
Tetrahedral
Trigonal Bipyramidal
Octahedral

Поетапне розв’язування тестової задачі, з отриманням частини балів

ELECTRIC FIELD ON THE SURFACE OF A CONDUCTOR : 7.0 POINTS

Note that you get 2 attempts for this problem. Everytime you click "Check" you use one attempt, so plan wisely. We encourage you to use the "Save" button if you need to save your answers and submit them later after you have answered all parts, or checked all answers.

The electric field at point A on the surface of a conductor is 32×10^3 V/m. What is the surface charge density (C/m^2) at that point?

0|5664*10^(-6) ✖

You have used 2 of 2 submissions

(e) What is the total charge residing on the upper plate of capacitor C_2 (in Coulombs)? Make sure you have the correct sign.

14.1*10^(-6) ✔

(f) What now is the magnitude of the electric field between the plates of capacitor C_1 (in V/m)?

147.06 ✔

(g) What now is the magnitude of the electric field between the plates of capacitor C_2 (in V/m)?

36.765 ✖

Final Check | Save | *You have used 4 of 5 submissions*

“Ступінчастий” тест

Question 2

Sketch the waveform of the capacitor current $i_C(t)$. Employ the small ripple approximation to derive an expression for the dc component of the capacitor current, as a function of the duty cycle D, the dc inductor current IL, the output voltage V, and the load resistance R. Enter your expression below. [14 points]

You entered:

-D*V/R+(-IL-V/R)*(1-D)

Preview Help

Your Answer	
-D*V/R+(-IL-V/R)*(1-D)	
Total	

Question Explanation

-(1-D)*IL-V/R

Question 3

Using your results above, derive an expression for the dc output voltage V, as a function of the input voltage Vg and the duty cycle D. Enter your expression below. [14 points]

You entered:

-D/(1-D)*Vg

Preview Help

Your Answer	
-D/(1-D)*Vg	
Total	

Question Explana

-D*Vg/(1-D)

Question 12

For the design with numerical values as specified above, sketch the waveform of the MOSFET voltage $v_{Q1}(t)$, including ripple. Find its peak value in volts, and enter the numerical value below. [5 points]

You entered:

6.975

Your Answer		Score	Explanation
6.975	✖	0.00	
Total		0.00 / 5.00	

Question Explanation

The MOSFET off-state voltage is Vg - v(t). The peak value of this is Vg - V + delta v, or 17.025 V.

THE UNIVERSITY OF CHICAGO

Global Warming: The Science of Climate Change
by David Archer

- Announcements
- Course Resources
- Syllabus
- Class Survey

WEEKLY SCHEDULE

- Week 1
- Week 2
- Week 3

Model Aerosols and Climate

Help

The **hard deadline** for this homework is **Sat 14 Dec 2013 9:59 PM PST**.

In this quiz, we will use the RRTM Earth's Energy Model again. Instructions for using this model are available on the doc page by clicking on "how to". Remember, for all numeric questions, type in your answer without the units (e.g. put "100" and not "100 K").

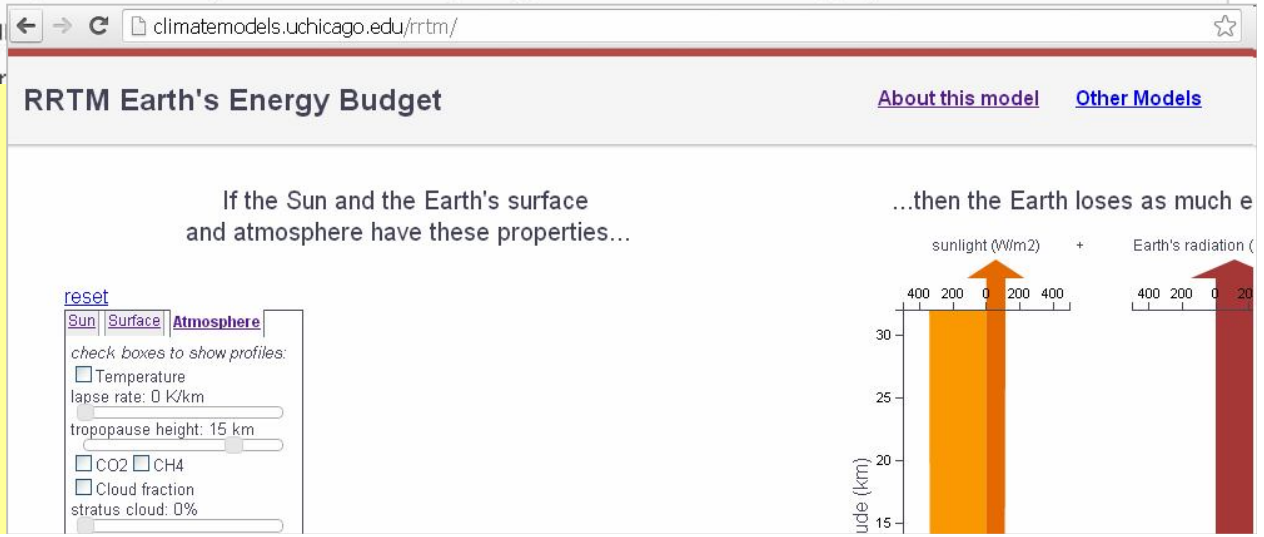
☐ **In accordance with the Coursera Honor Code, I (Yuriy Skorenkyy) certify that the answers here are my own work.**

Question 1

Set up an atmosphere with a lapse rate of 5 K/km, a CO_2 concentration of 400 ppm, a stratus cloud cover of 50%, and a su

these conditio

Для “творчого завдання” – сторонній ресурс



“Дослідницькі” завдання

COURSE INFORMATION

- About Us
- Syllabus
- Course Information

CLASSES

- Video Lectures
- Data Sets / Quizzes
- Supplemental Materials
- Discussion Forums
- Surveys
- Course Wiki
- Join a Meetup

Week 4

Due Nov. 28, Noon USA Eastern time

In this assignment, you need to build a Bayesian Knowledge Tracing model for data file Asgn4-dataset.csv. This data set is a subset of the data set used in

Baker, R.S.J.d., Corbett, A.T., Roll, I., Koedinger, K.R. (2008) Developing a Generalizable Detector of When Students Game the System. User Modeling and User-Adapted Interaction, 18, 3, 287-314.

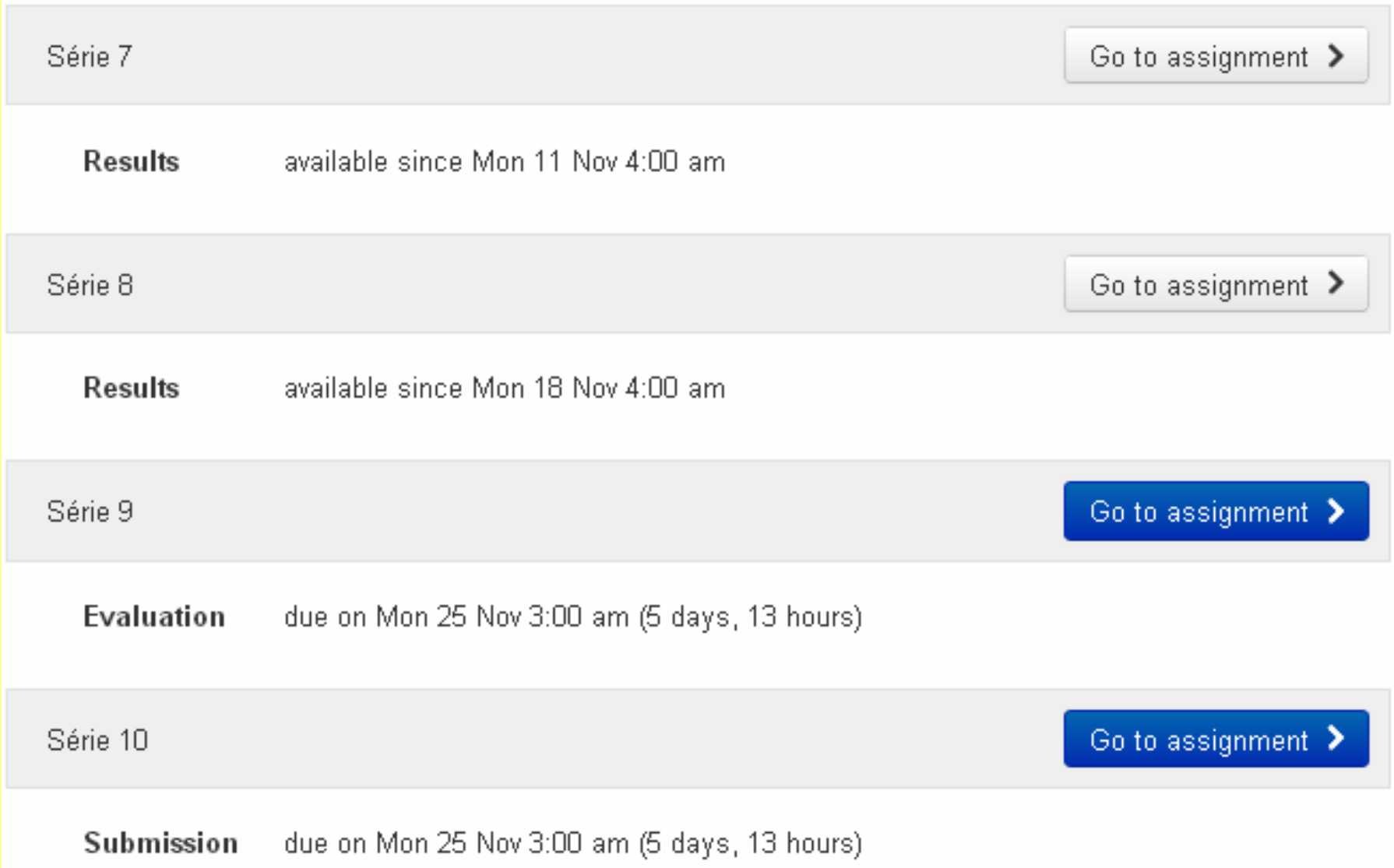
This paper can be found at

http://www.columbia.edu/~rsb2162/USER475.pdf

This data set's variables are:

- ID – a unique ID for every student action in the Cognitive Tutor used
- Lesson – the tutor lesson the action comes from
- Student – a deidentified ID for the student
- KC – the knowledge component (skill) involved
- Item – the problem step in the learning system
- Right – is the student action right (1) or not right (0)
- Firstattempt – is this the student's first attempt at the problem step (1)?
- Time – how long did the student attempt take?

3. Взаємне оцінювання – peer assessment



Vidéos des leçons

EXERCICES

Quiz

Séries d'exercices

Enoncés et corrigés

A PROPOS DU COURS

Syllabus

Contrôle d
et certifica

Le staff

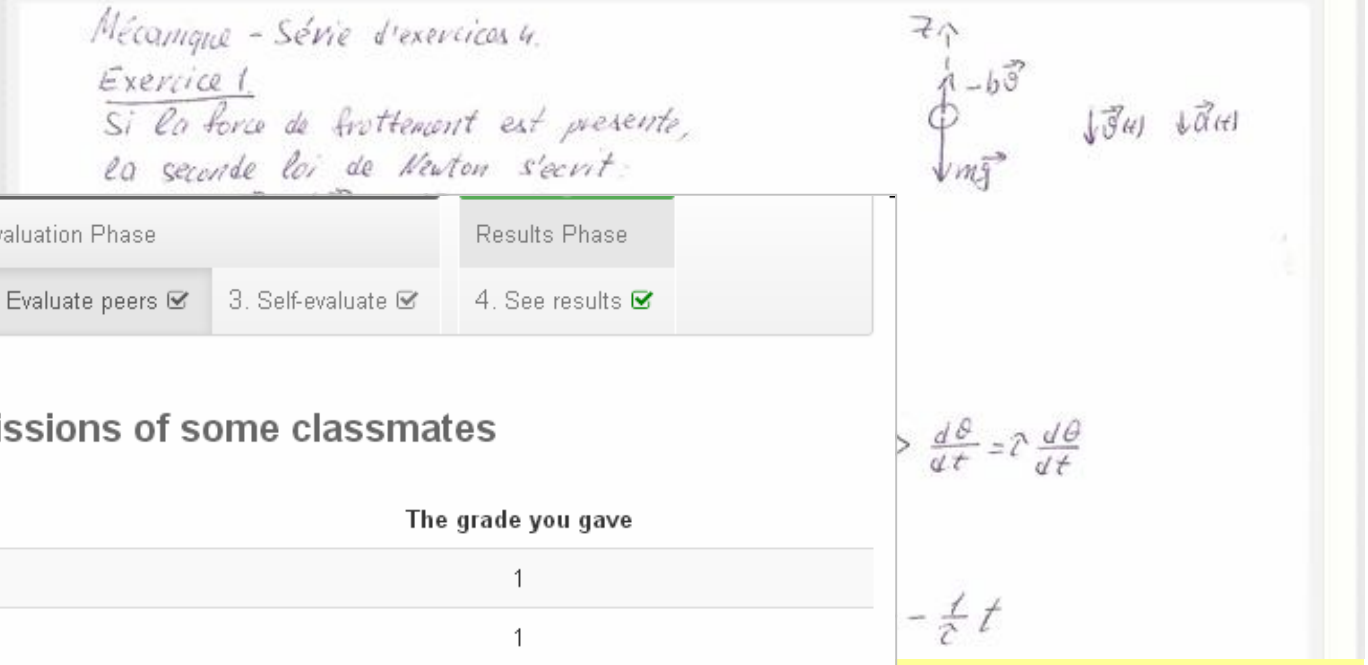
COMMUNAUTÉ

Forum de

Join a Mee

Voici l'énoncé de la série 4.

Veuillez répondre sur une ou plusieurs pages A4 (manuscrites ou pas), scanner (ou photographier avec votre smartphone) et "uploader".



Submission Phase	Evaluation Phase		Results Phase
1. Do assignment ☑	2. Evaluate peers ☑	3. Self-evaluate ☑	4. See results ☑

Evaluate the submissions of some classmates

		The grade you gave
Student 1		1
Student 2		1
Student 3		1
Student 4	(optional)	1
Student 5	(optional)	1

You should now do your required self-valuation. Skipping this step will result in a grade penalty. You've evaluated 5 submissions! **You're tops!** Want to evaluate another one?

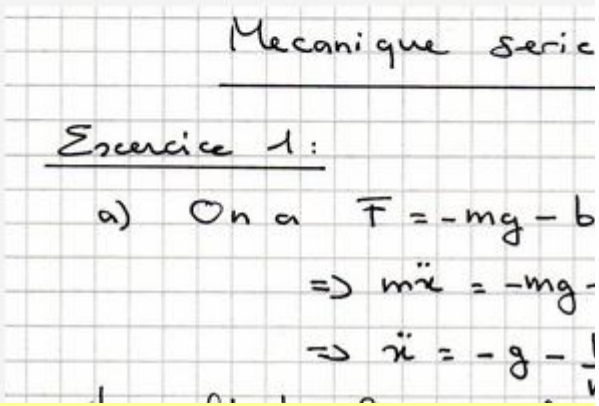
+ Evaluate another student (optional but useful) → Go on to self-evaluation

Return to list

Submission from: Student 1

Voici l'énoncé de la série 4.

Veuillez répondre sur une ou plusieurs pages A4 (manuscrites ou pas), scanner (ou photographier avec votre smartphone) et "uploader".



Evaluation/feedback on the above work

Voici le corrigé de la série 9. Utilisez-le pour juger du travail de vos collègues, ainsi que du vôtre.
Insuffisant (0 pt) correspond à un travail bâclé et/ou incomplet. Suffisant (1 pt) correspond à une copie dont la qualité est juste satisfaisante. Bien (ou très bien, 1 pt) récompense un rendu soigné et complet.

1: Bien

0: Insuffisant
1: Suffisant
1: Bien
1: Très bien

que(s) constructive(s) pouvez-vous faire sur le travail que vous venez de corriger?
Vous pouvez nuancer et justifier votre note brièvement ci-dessous.

Assessing Writing in MOOCs: Automated Essay Scoring and Calibrated Peer Review™

- Stephen P. Balfour

VOLUME EIGHT | SUMMER 2013
www.RPAjournal.com
ISSN # 2161-4210

Published by:
VIRGINIA ASSESSMENT GROUP
www.virginiaassessment.org

Factor	AES	CPR
Types of Papers Scored	-Leveled or topical essays -Focused essays -Structured is better -More literal than figurative	-Single topic from common sources -Short essays -May be a little less structured -May be used for some figurative texts
Consistency of Scoring	-Highly consistent	-3 student raters provide feedback with visible disparities to the writer -Quality of calibrations and rubric partially determine consistency of score
Comments Provided	-Major element such as creativity, style, and organization -Based on statistical analysis or lookup -Likely to miss subtle elements	-May be enabled on every rubric element -Messy, human-based comments -Vary by reviewer ability and helpfulness
Instructor/TA Intervention	-Requires training essays: 100+	-CPR problem list may not scale up to multiple tens of thousands of students -Students often doubt peer assessment
Advantages for Student Learning	-Rapid feedback -Categorical and overall review	-7 uses of instructor rubric on content -Teaches evaluation skills -Self-evaluation after peer review -Required repetition/time on task

The New York Times

By JOHN MARKOFF
Published: April 4, 2013

Science

Essay-Grading Software Offers Professors a Break

InformationWeek CONNECTING THE BUSINESS TECHNOLOGY COMMUNITY

8/5/2013

Automated Essay Grading Software Stirs Debate

Some educators say the benefits of EdX's writing-grading software have been over-hyped. But I see a role for automation in the classroom.

e-Literate

Six Ways the edX Announcement Gets Automated Essay Grading Wrong

Posted on April 8, 2013 by Elijah Mayfield

THE CONVERSATION

Academic rigour, journalistic flair

26 April 2013, 6.51am BST

Computer thinks you're dumb: automated essay grading in the world of MOOCs

Kolowich, S. (2013, March). The professors who make the MOOCs. *Chronicle of Higher Education.*

74% респондентів використовують автоматичне оцінювання; 67.1% вважають його "дуже надійним" 30.1% - "надійним до певної міри".

34% використовують взаємне оцінювання; 25.8% вважають його "дуже надійним", 71% - "надійним до певної міри".

3. Форум – не забавка, а спосіб щось взнати, комусь допомогти і сподобатися викладачу (на оцінку)

Форум може виявити найкращих

Forums / General Discussion

Question about the Polysilicon Gate

Subscribe for email updates.

Sort replies by: Oldest first | Newest first | Most popular

gate × + Add Tag

Nikhil · 8 days ago

From what I know, in a N-MOS structure, we have a p-type body and n-type polysilicon gate (PSG). My question is, why do I have to use n-type polysilicon gate only? Can I not use P-type PSG? Is this because electrons have higher mobility than holes and hence offer lesser resistance and consequently lower RC delay??

1

Mark R. Gehring · 4 days ago

Look at the equation for VT0. Using P gate, with positive work function, will dramatically shift the VT to unusable values. Thus, P gates are used for p channel (nwell) MOSFETs. This is also why it took a long time to develop metal gates for low voltage MOS devices - you have to use the right metal alloy to get the VT reasonable.

Do massive open online course platforms challenge the legitimacy of modern universities?

Subscribe for email updates.

legitimacy × mooc × neo-institutionaltheory × DanielAMcFarland × + Add Tag

Daniel McFarland INSTRUCTOR · 2 months ago

How does a MOOC like Coursera potentially challenge our notions of what a legitimate university is? Just to stir the pot - online credentials are on their way (with checks for cheating), and what if these courses are merely 50% as effective as a face-to-face one but a fraction of the cost – what does that mean for the modern university and its future?

What of community colleges and other online universities like the University of Phoenix? Will Coursera and elite university offerings put them out of business?

↑ 192 ↓ · flag

Michael R. Montgomery · 5 days ago

I think it is a challenge and will certainly grow as people get used to the concept of on-line learning. However I observe a high drop out rate among participants indicating that many people either struggle with the level of self motivation involved or simply are not from the generation that have embarked upon IT formalled learning. (among all the other reasons people drop out from a course of course.) I reflect on how much 'brand' will influence this emerging market and will a fully operational physical campus not remain central to its footprint?

↑ 51 ↓ · flag

Philippa Jane Stone · 5 days ago

Its easy to "bite off more than you can chew". Dropping out doesn't necessarily mean that the student isn't motivated. It could mean that a) the course was much harder than expected, b) that the student doesn't have access to the technical resources required for some courses or c) find that other courses become available which are exactly what the student requires and a choice has to be made - there are only so many hours in the day.
I have been astounded at the quality of teaching and how much I have learnt. Yes, I've dropped out of a couple of courses. I found the subjects very difficult "first time round" while at university and in-service training, but "second time around" was no better and I cut my losses. These courses should help younger students to "try before they buy", test out their true interests and get a feel for their preferred universities before embarking on a residential degree course. This must be the ultimate public relations/advertising opportunity for universities ever invented. Local educational establishments could allow students to use their facilities for on-line study. The existing staff could then take on a tutoring role and more subjects could be offered.

↑ 44 ↓ · flag

Course Overview
Syllabus
Frequently Asked Questions
Course Calendar
Statement of Accomplishment Tracks

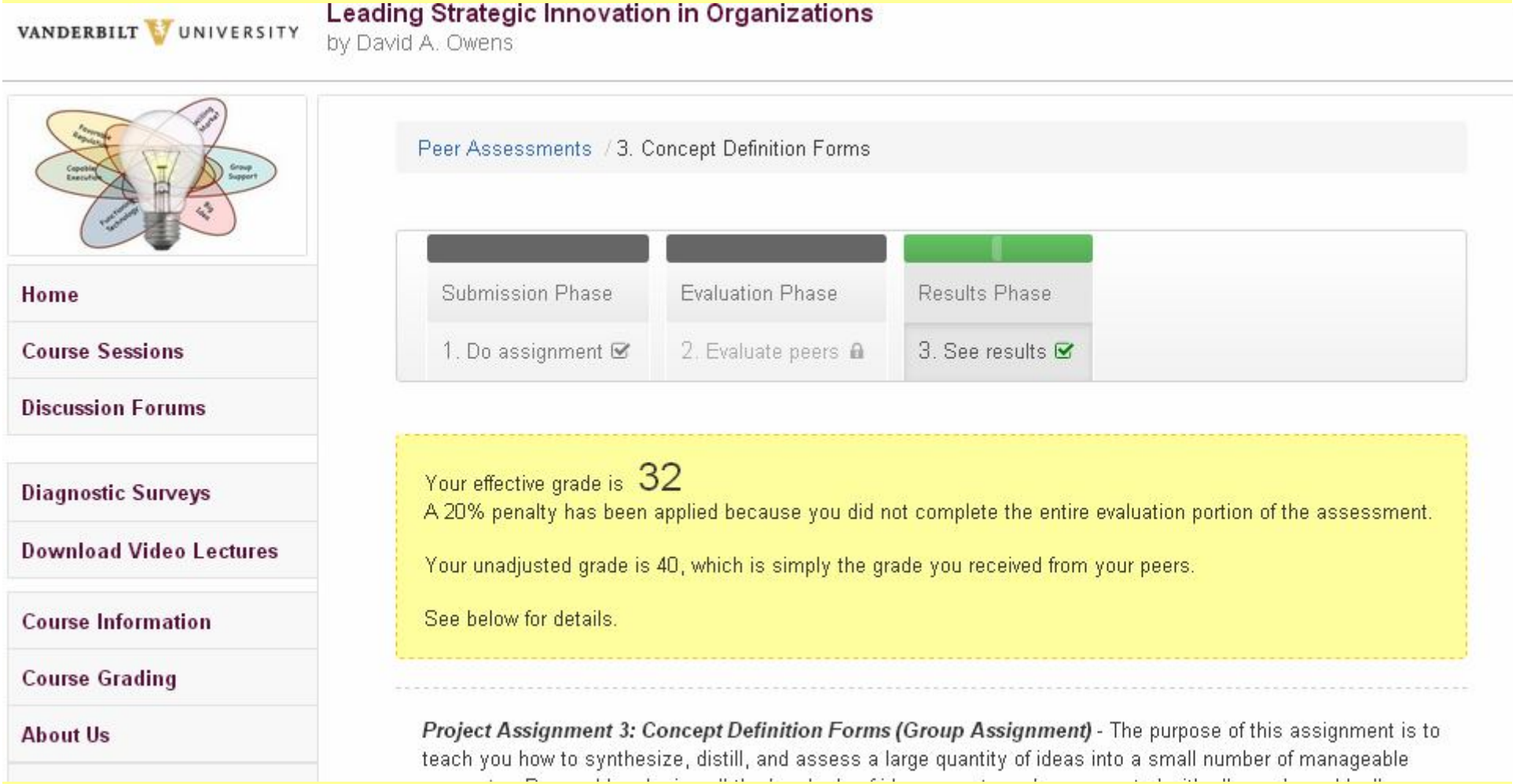
CORE MATERIALS

Video Lectures
Textbook
Supplemental Readings
Discussion Forums
Quizzes
Final Exam
Small group video discussions

WRITING ASSIGNMENTS FOR DISTINCTION AND ADVANCED DISTINCTION TRACKS

Overview

4. Проект як модель професійної співпраці



Платформа - внутрішня (як форум чи BigBlueButton) чи зовнішні спеціалізовані (Google Docs, Project2Manage, ProjectPier, Bubbl.us, ...)

Спільні асинхронні розробки

Constraints Assessment Worksheet

Part 1: Basic Information

Your Project Name: **How we can use MOOCs in Firm's corporate universities?**

Your

Part

Most

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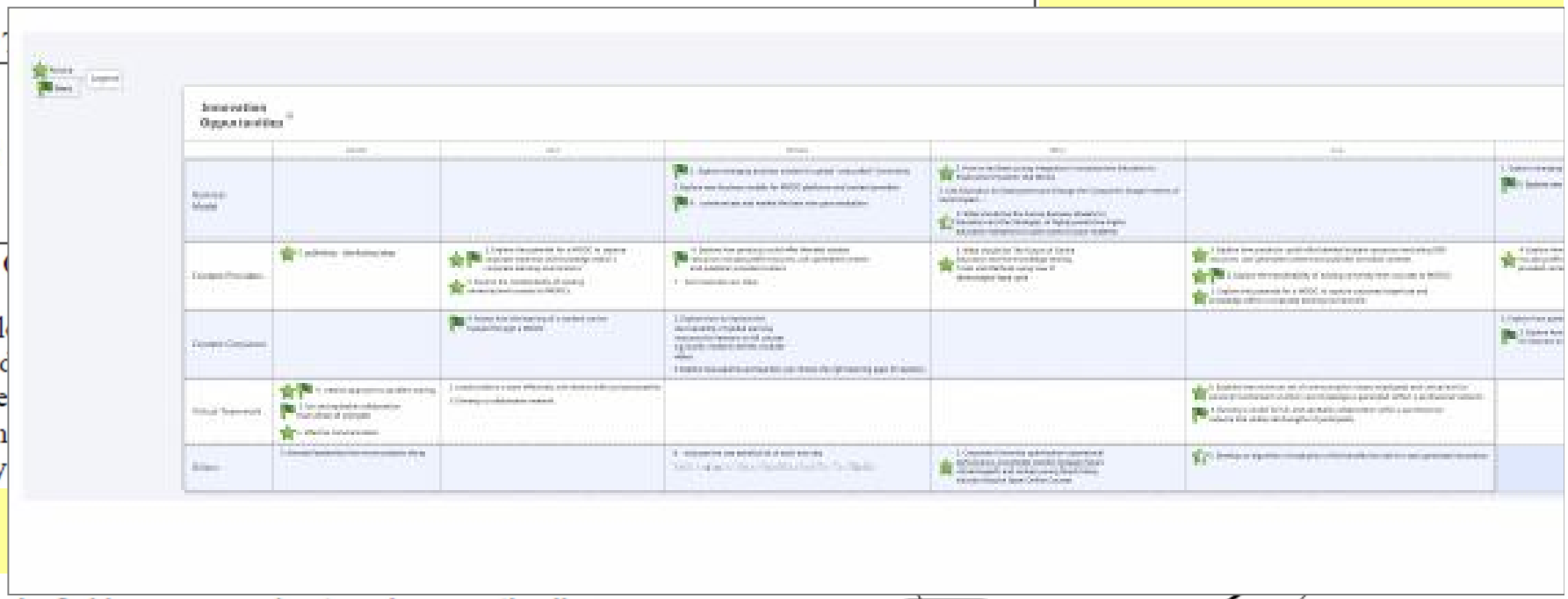
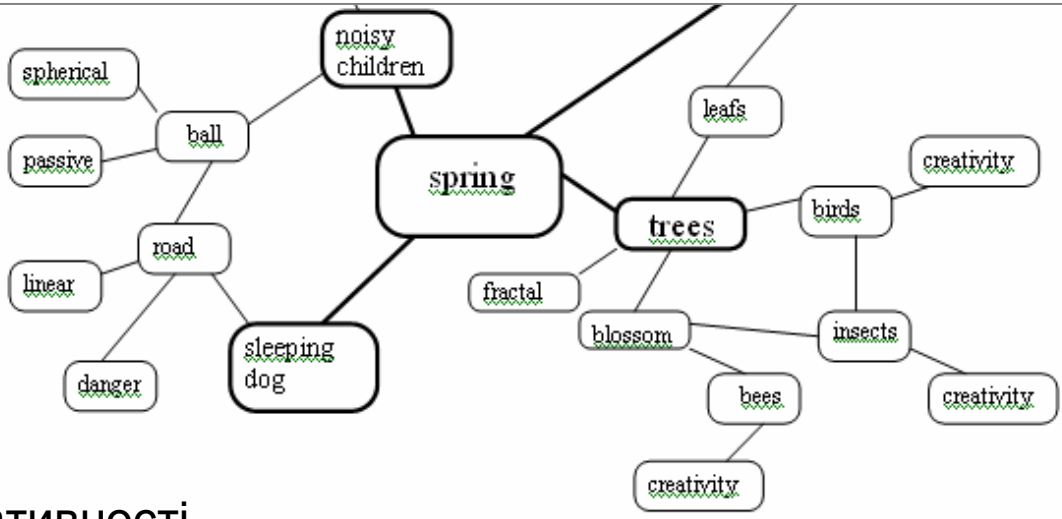
surely



Scenario 3: Humans and rats mix genetically and become a united species



Кватирка для прояву / розвитку креативності

Командний проект, розоблений в рамках дистанційного курсу:

• Документується автоматично;

• Може контролюватися / коригуватися асистентом чи інструктором;

• Можливість встановлювати графік роботи;

• Легкість збереження результатів, встановлення авторства ідеї, обміну інформацією.

Є і недоліки, зокрема:

• Небезпека “торпедування” проекту окремими недобросовісними учасниками;

• Відсутність прямого спілкування.

coursera

Rice University

Fundamentals of Electrical Engineering

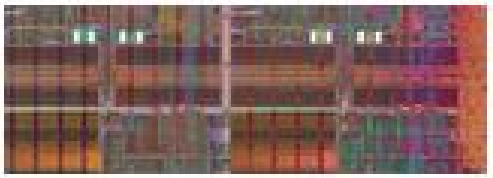
Ended a month ago

Rice University

Nanotechnology: The Basics

Ended 4 months ago

edX



MITx

6.002x Circuits and Electronics

coursera

RICE

Nanotechnology: The Basics
by Professor Vicki Colvin, Daniel Mittleman

Quizzes

Syllabus

Help

Nanotechnolc

Week 1: Smal
discipline has
pantheon that

Week 2: Elect
in everything
limits are to m

- Home
- Week 1: Nanotechnology
- Week 2: Nanoelectronics
- Week 3: Nanom
- Week 4: Nanopl
- Final Exam and

Question 3

What type of magnetic behavior i

single best answer.

Your Answer

- Multiple domain.
- Magnetized.
- Demagnetized.
- Superparamagnetic. ✓
- Single domain.

Total

Question Explanation

Hint: See Slide 17 in your lecture notes (or slide 18)

Forums / General Discussion

Practical Problems with Nanotech Water Filters

Subscribe for email updates.

No tags yet. + Add Tag

Sort replies by: Oldest first | Newest first | M

Sven Rasidi · 6 months ago

If you manufacture filters containing nanoscale carbon particles, I'm wondering how you would contain them in the cartridge while still keeping it permeable for water. Since they are so small, wouldn't they leak out of the cartridge and get everywhere, including your body, and cause all kinds of unwanted effects?

↑ 1 ↓ · flag

Natalia Gonzalez Pech STAFF · 6 months ago

Hi Sven.
this is a really good questions. One of the challenges of the nanotechnology is to bring these materials to use them in real world. In this particular case, nanoparticles are great for water purification of different contaminants. However, its use is limited by what you mentioned. One important issue in nano- environmental engineering is the use of the suitable support matrixes to avoid this kind of problems. Some of them are already in the market but for other technologies are still in development.

coursera

Fundamentals of Electrical Engineering I

RICE
Unconventional Wisdom

Fundamentals of Electrical Engi

by Don H. Johnson

75

its application, and KVL is a statement about voltage drops around a closed path **regardless** of whether the elements are linear or not. Thus, for this simple circuit we have

$$\frac{v_{out}}{R} = I_0 \cdot \left(e^{\frac{q}{kT}(v_{in}-v_{out})} - 1\right) \quad (3.33)$$

This equation **cannot** be solved in closed form. We must understand what is going on from basic principles, using computational and graphical aids. As an approximation, when v_{in} is positive, current flows through

Video Lecture

Question 1

What is the period of the sinusoid $s(t) = A\sin(2\pi f_0 t)$? In your answer, write A as `A` and f_0 as `f0`.

Preview Help

Question 2

The **rms** (root-mean-square) value of a periodic signal $s(t)$ is defined to be

$$\mathrm{rms}[s] = \sqrt{\frac{1}{T}\int_0^T s^2(t)dt}$$

where T is defined to be the signal's **period**: the smallest positive number such that $s(t) = s(t+T)$

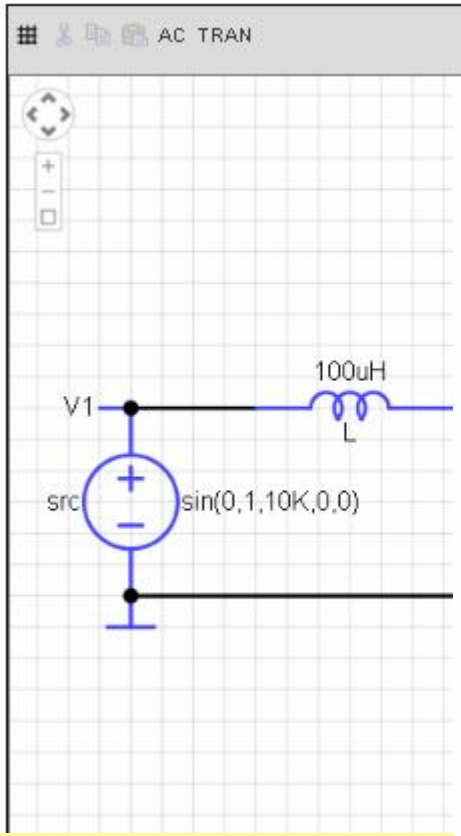
What is the rms value of the sinusoid $s(t) = A\sin(2\pi f_0 t)$? (Again, write A as `A` and f_0 as `f0`.)

Overview

Welcome to 6.002x

H9P1: RESPONSE TO A DELAYED IMPULSE (8/8 points)

Note: In this problem we have chosen numbers for the part parameters to make it easier to compute an answer :-). By the way, it is also hard to arrange zero resistance, except with superconducting materials at very



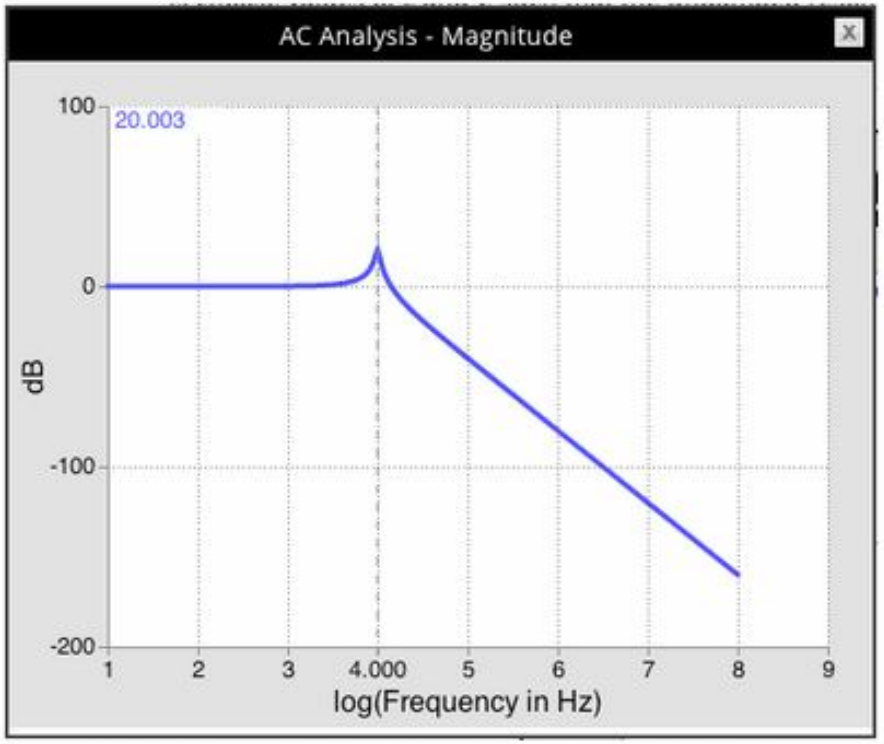


Figure 4. Frequency response with R and C interchanged.

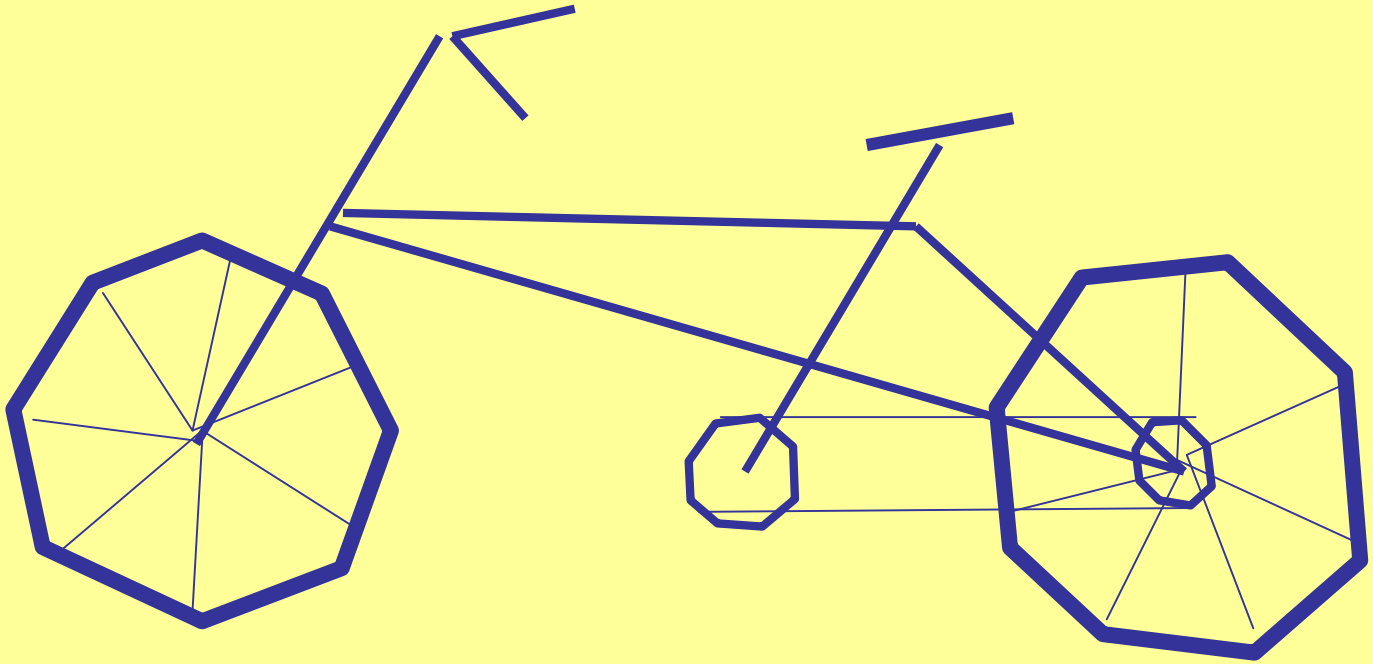
u can

nergy, in Joules, stored in the circuit?

17.5

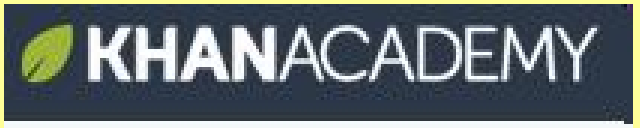
Висновки

Велосипеди існують



Висновки, детальніше

1. Електронні системи оцінювання – економічно ефективніші та екологічно чистіші від оцінювання “неозброєним оком”;
2. Переваги електронних тестових систем – різноплановість, оперативність обробки результатів та можливість одночасного контролю знань великої кількості студентів, звільнення викладача від монотонної роботи;
3. Існують відкриті гнучкі системи тестового контролю, деякі з них – з відкритим кодом (наприклад, OpenEDX);
4. Варто заохочувати студентів використовувати відкриті дистанційні курси, забезпечуючи більші варіабельність, повноту перевірки різних складових компетентності, роздільну здатність інструментів оцінювання.



Open Learning: The Journal of Open, Distance and e-Learning
http://www.tandfonline.com

http://elearnmag.acm.org/featured.cfm?aid=2016017

http://www.mooc-list.com/

Kolowich, S. (2013, March). The professors who make the MOOCs. *Chronicle of Higher Education*. Retrieved March 20, 2013, from http://chronicle.com/article/The-Professors-Behind-the-MOOC/137905/#id=overview.