

ScienceAtHome: forskningsskabende (ud)dannelse og demokratiseret digitalisering

Jacob Sherson

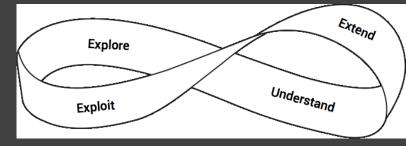
6/4,

Uddannelses- og forskningsmødet,

Kolding

AARHUS UNIVERSITY





De tre former for citizen science



Data-indsamling

- Statens naturhistoriske museum
- NaturTjek
- Astra's masseeksperiment

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<u>Mønstergenkendelse</u>

- Zooniverse (fx Steno Museum, æggesamling)
- DRs brugere tagger stemmer i lydarkiv
- ...

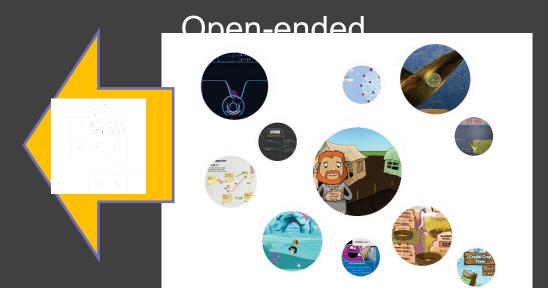
Problemløsning

Indkapsle komplekse forskningsudfordringer i spil

Veldefineret, afgrænset

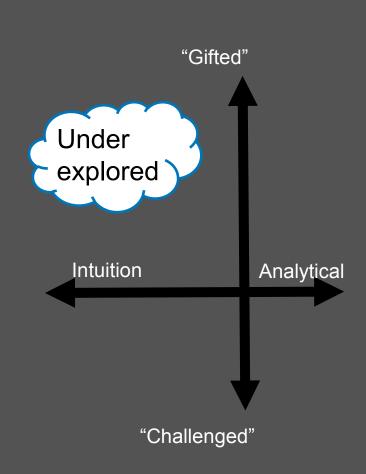
Citizen science V2.0

7 billion research leaders



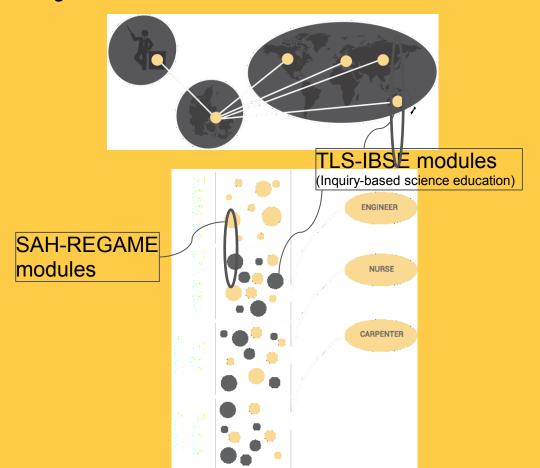
Why Research-Enabling Game-Based Education (REGAME)

- REGAME increases student motivation
 - By providing <u>epic meaning</u> through a direct link between the core curriculum and front-line R&D challenges (i.e. global sustainability goals)
 - By demonstrating to the students that knowledge is not static but can be expanded/explored even without a graduate research education (<u>open ended exploration</u>)
 - By <u>turning normal teaching upside down</u>: first explore the engaging/epic perspectives of the subject matter using a powerful yet intuitive interface and then "open the hood of the Ferrari" to understand the underlying formalism.



Think Like a Scientist (TLS), global educational initiative started this summer

Mission: Think Like a Scientist (TLS) seeks to create a movement that recognizes, connects, and expands the efforts of individuals and organizations seeking to stimulate all students to think like scientists living in an emergent universe.





Current Partners (27):

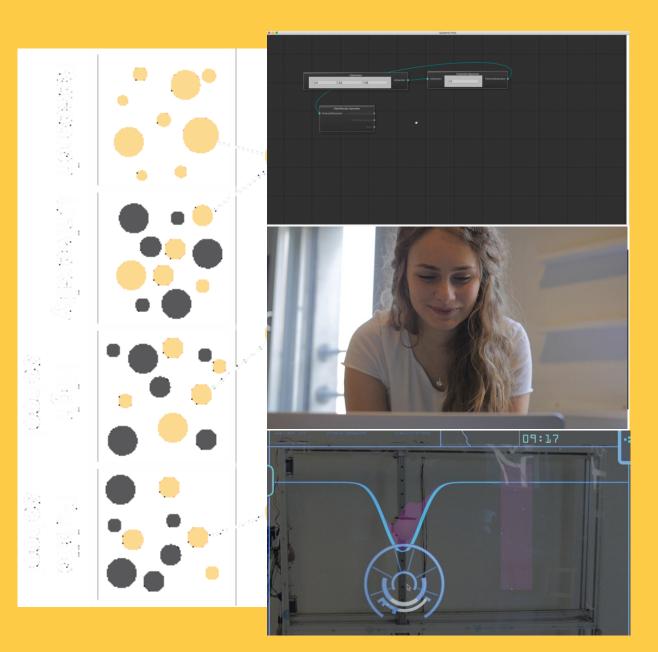
TLS/USA includes 7 major Unis, AIP, APS, AAAS, Exploratorium +...

<u>Advisory commitee</u> including 3 Nobel Laureates, President AAAS + NAS

Leadership team



REGAME som ikke-formalistisk progression

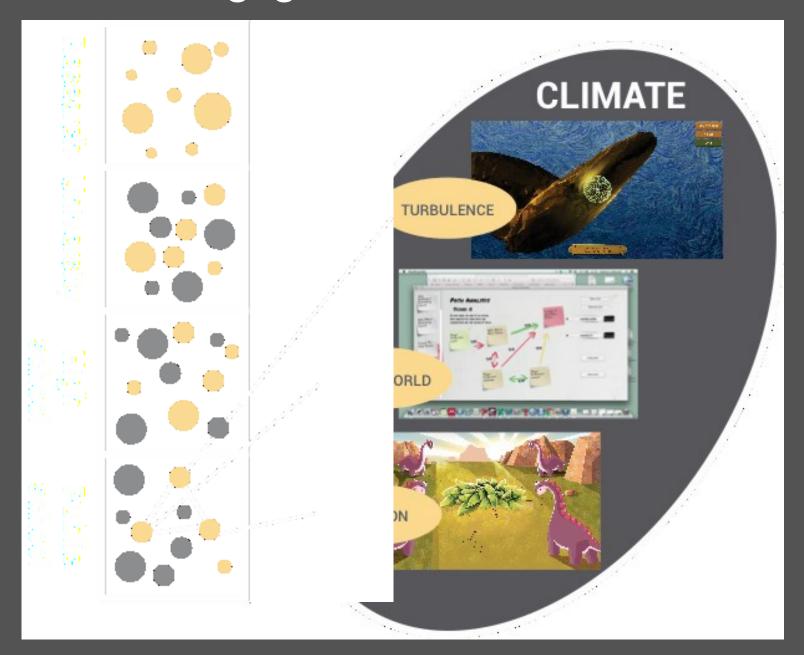








REGAME som tværfagligt emne



ReGAME CUP'18 spil, udforsk og bidrag

I september 2018 vil ScienceAtHome afholde en national forskerkonkurrence for elever fra gymnasiet og udskolingen. Konkurrencen er klassevis og alle deltagere bidrager til forskning i forskellige emner heriblandt kvantefysik og turbulens.

Konkurrencen vil blive struktureret efter undervisningskonceptet, Research-Enabling Game-Based Education (ReGAME), hvori eleverne gennemgår læringsmoduler, der præsenterer sammenhængen mellem kerne pensum fra egen undervisning og forskellige moderne forskningsudfordringer. Moduler kan virke som en aktiv og intuitionsbaseret motivation for det konkrete pensum.

FOR HVEM:

Deltagerne i Danmarks Forskerklasse er elever fra folkeskolens 8.+9.klassetrin samt 1g.-3g. i gymnasiet. For at deltage skal minimum 5 elever/studerende fra klassen danne et hold.

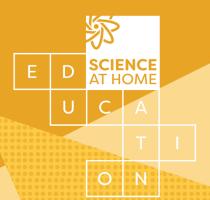
TILMELDING:

Tilmelding til Danmarks Forskerklasse starter i foråret 2018 på scienceathome.org

PRÆMIER:

Der findes både en samlet vinder, men også vindere på hvert klassetrin.

Find ud af mere på scienceathome.org/regame







SAH partnere



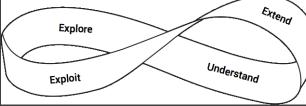


Machine learning

Christian Storm

Pedersen

Physics



Arthur Juliani, OregonU



_ars Kai Hansen, DTU

Rupert Young, perceptual Robots



Ole Eggers Bjælde, CSE

Didactics



Niels Bonderup

Corporate innovation



Karim Lakhani, Marco Iansiti (HBS)

Dohn, DPU

Oana Vuculescu, Carsten Bergenholtz (BSS)

CODER

Psychology/anthropology: formation of groups, reward structure



Andreas Lieberoth



Rajiv Basaiawmoit, AU

Ralph Hertwig, Max-Planck, heuristics)



Andrew Mao. Microsoft



THE HARD WORKING TEAM





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collaborations and short long research stays, so please contact me sherson@phys.au.dk





