VIDEOS IN HIGHER EDUCATION

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Research Video (2016):
„Videos in Higher Education – A Journey into the World of Digital Education“
RESULTS?
protein basics

Outline:
- Polymers of amino acids
- Order specified by bases in mRNA
- Fold spontaneously into catalytic structures, driven by hydrophobic effects and hydrogen bonds

Learning Objectives:
- Describe protein 1° and 2° structure
- Relate to gene structure

What Does Scalable Mean?

- Operationally:
  - In the past: "Works even if data doesn't fit in main memory"
  - Now: "Can make use of thousands of cheap computers"
- Algorithmically:
  - In the past: If you have N data items, you must do no more than \( N^k \) operations — "polynomial time algorithms"
  - Now: If you have N data items, you must do no more than \( N \log(N) \) operations, for some large \( k \)
    - Polynomial-time algorithms must be parallelized
  - Soon: If you have N data items, you should do no more than \( N \) operations
    - As data sizes go up, you may only get one pass at the data
    - The data is streaming — you better make that one pass count
    - Ex: Large Synoptic Survey Telescope (30TB / night)
Principles of Electrical Circuits

L18 Operational Amplifier

Operational Amplifier Op Amp

presented by

Principles of Electric Circuits by Tsinghua University

dubbed by Xunjie
PERFORMANCE
“How good are they on camera? First of all, there are some people; you just love to watch them perform. And then there are other people, like, not really.”

«So they all try to mimic a presentation in a lecture theater. [...] It's 3D background, that kind of makes it feel like a formal presentation is going on. So the lecture still feels quite strong in all of the styles of them. Because actually I'm not sure the lecture as a teaching and learning model is that good anyway [...] And yet why we are trying to copy it’s conventions and take it through into the online space?»

Filmmaker: "You can’t move, otherwise you get out of my depth of field."
Filmmaker:  
"You can’t move, otherwise you get out of my depth of field."

Educator:  
“This is really difficult! My brain has to rethink all the time.”
Filmmaker: “You can’t move, otherwise you get out of my depth of field.”

Filmmaker: “Try to stand upright!”
Filmmaker: “Shoulders back!”
Filmmaker: “Don’t wiggle around!”

Educator: “This is really difficult! My brain has to rethink all the time.”
Filmmaker: “You can’t move, otherwise you get out of my depth of field.”

Filmmaker: “Try to stand upright!”
Filmmaker: “Shoulders back!”
Filmmaker: “Don’t wiggle around!”

Educator: “This is really difficult! My brain has to rethink all the time.”

Educator: “I guess I’m learning to swim.”
Interference of the media design with the performance of Talking Heads?
Interference of the media design with the performance of Talking Heads? Yes!
Interference of the media design with the performance of Talking Heads?

But how?
Closed Innovation Model

- Recruit top talent for internal R&D
- Innovate only within firm’s boundaries
- Filter internal ideas for defined market
INNOVATORS
Cosmopolitan, Connected
Risk takers, problem solvers

- Innovators: 2.5%
- Early Adopters: 13.5%
- Early Majority: 34%
- Late Majority: 34%
- Laggards: 16%

Market Share %

Time
THERE IS NO EMPTY ROOM
NEVER

- no measurement of size
- lack of 3D room effect
- 100% focus on the speaker
- no place to hide
- meaning making out of facial expressions, gestures, body tonus, clothing, eye bags...

# nakedness. Create security with (power pose) mobiliar, thematic objects, different light settings
EMBODIED LANGUAGE OF SPEAKER
EXAMPLE: GESTURES

(1) Communicative function of gestures
(2) Self-referential function of gestures
EXAMPLE: GESTURE

(1) Communicative function of gestures
(2) Self-referential function of gestures

“But gestures also have functions for the gesturers him or herself. [...] When you make gestures, your communicative processes change the way you actually think about. The topic you are talking about, changes when you try to express something in the hand.”

Prof. Sotaro Kita, Gesture & Communication Researcher, 2015.
CO-DESIGN
Disciplines; Topics; Characters
“It is often the case that the same language is free in one speaker, foolish in another, and arrogant in a third.”

Marcus Fabius Quintilian, 50 B.C.
„It is often the case that the same VIDEO STYLE [language] is free in one speaker, foolish in another, and arrogant in a third.“

> [language]: moving images as language; audiovisual language
1. The performance of speakers is essential in educational videos – embodied language!
KEY TAKEAWAYS

1. The performance of speakers is essential in educational videos – embodied language!
2. Media design can support or hinder the performance
KEY TAKEAWAYS

1. The performance of speakers is essential in educational videos – embodied language!
2. Media design can support or hinder the
3. Video ≠ Copy. Media design knowledge meets scientific educational knowledge: Co-Design!
Manifesto Videos in Higher Education

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«Media Design Expertise for Videos in Higher Education.  
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Book «Media Design Expertise for Videos in Higher Education», open access, 2018 on: osf.io;, researchgate, audiovisualresearch.org

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