

renewing teaching & learning...

leveraging
mobility
for student
engagement

Dr William Rankin
Honors College Fellow
Abilene Christian University
NU 2012 Conference
Göteborg, Sverige • 18 Oct 2012





BIRDS EYE VIEW OF

ABILENE

TAYLOR COUNTY, TEXAS. 1883.

connection

connection

structural

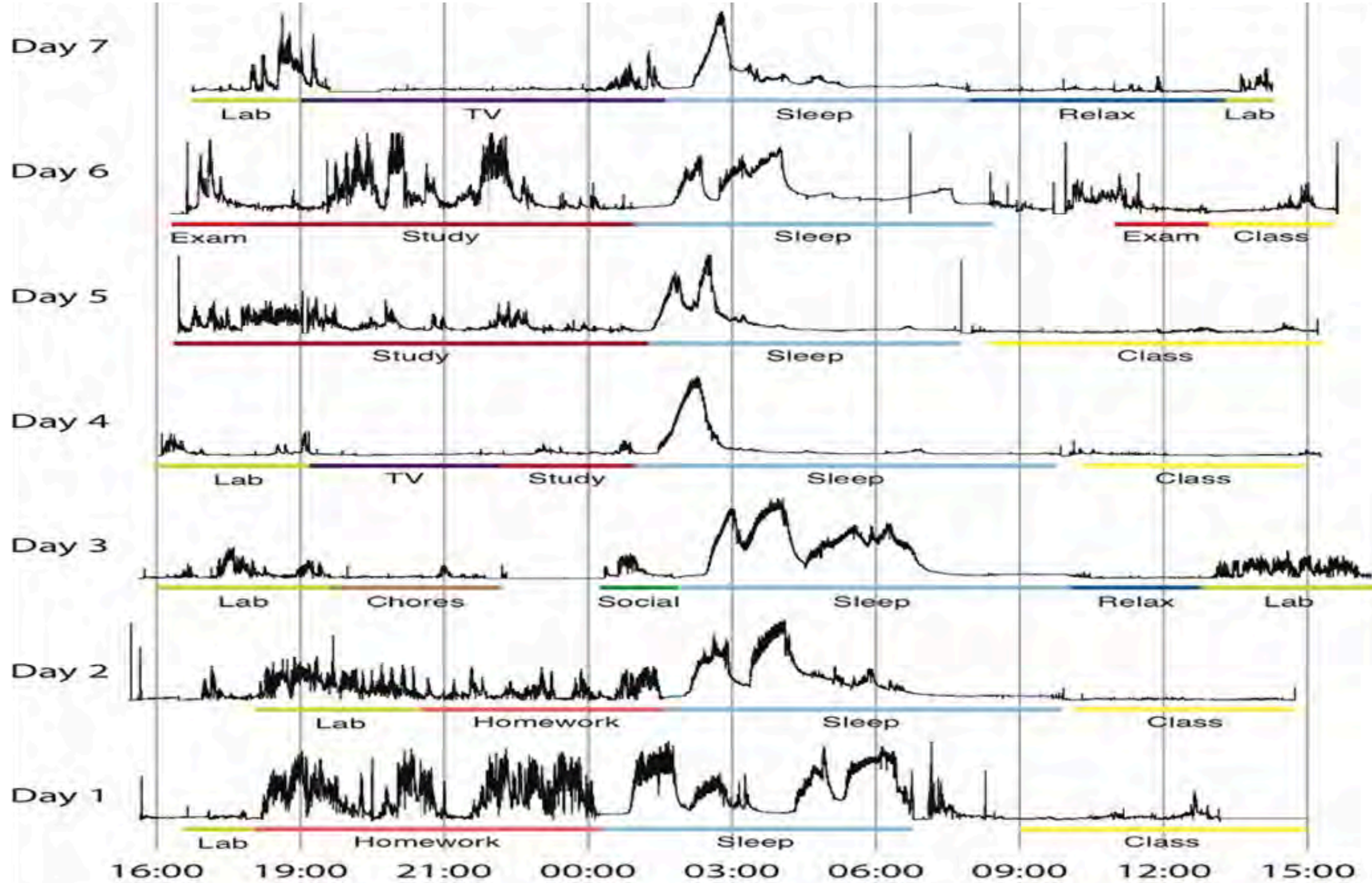
social

cultural



A blue-tinted photograph of a classroom. The room is filled with rows of long, light-colored desks and dark chairs, arranged in a traditional classroom layout. The desks are slightly angled, and the chairs are tucked under them. The lighting is soft, and the overall atmosphere is quiet and empty. The text is overlaid in the center of the image.

**are our classrooms offering
productive connections?**

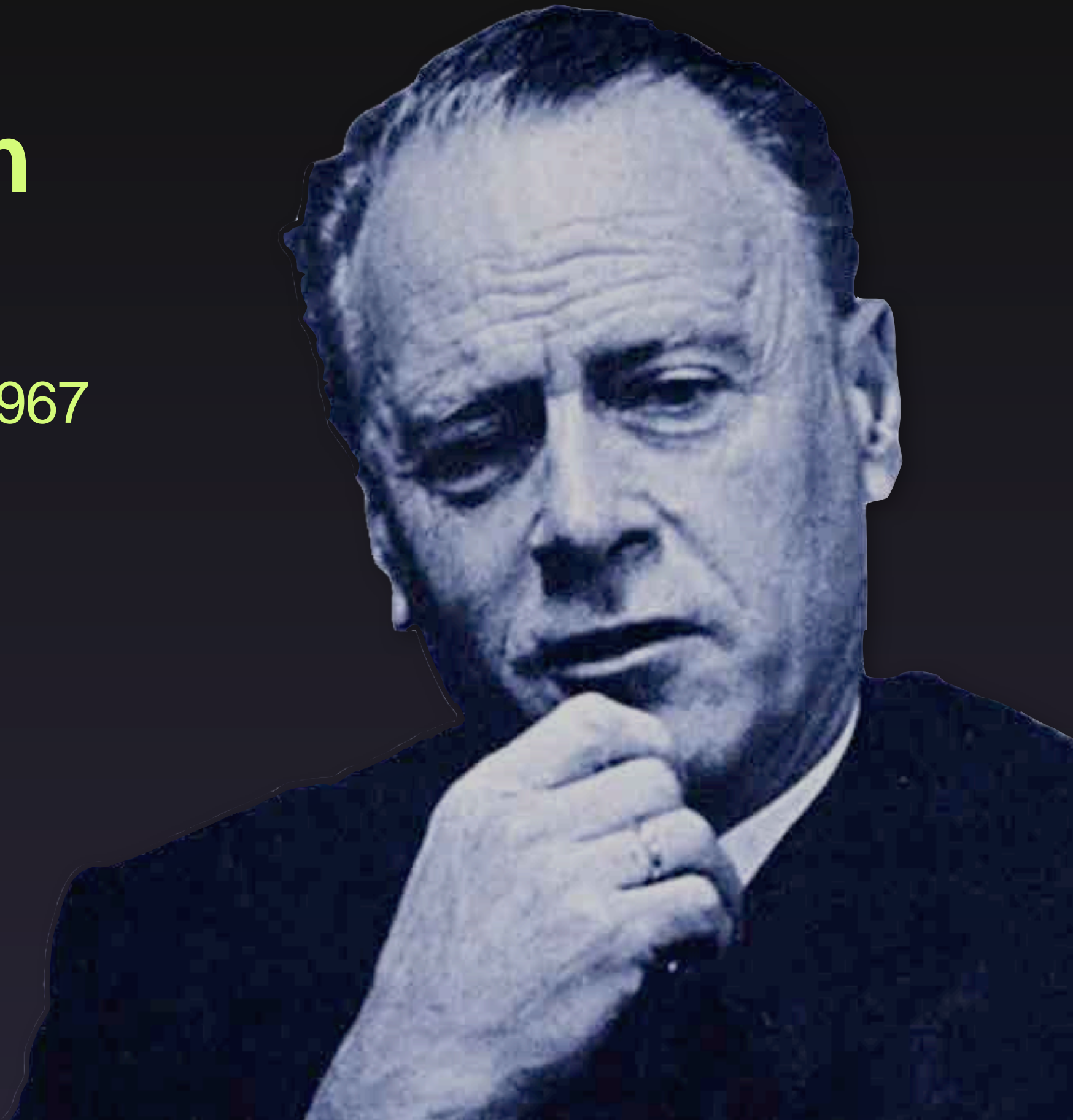


Marshall McLuhan

The Gutenberg Galaxy 1962

Understanding Media 1964

The Medium is the Message 1967



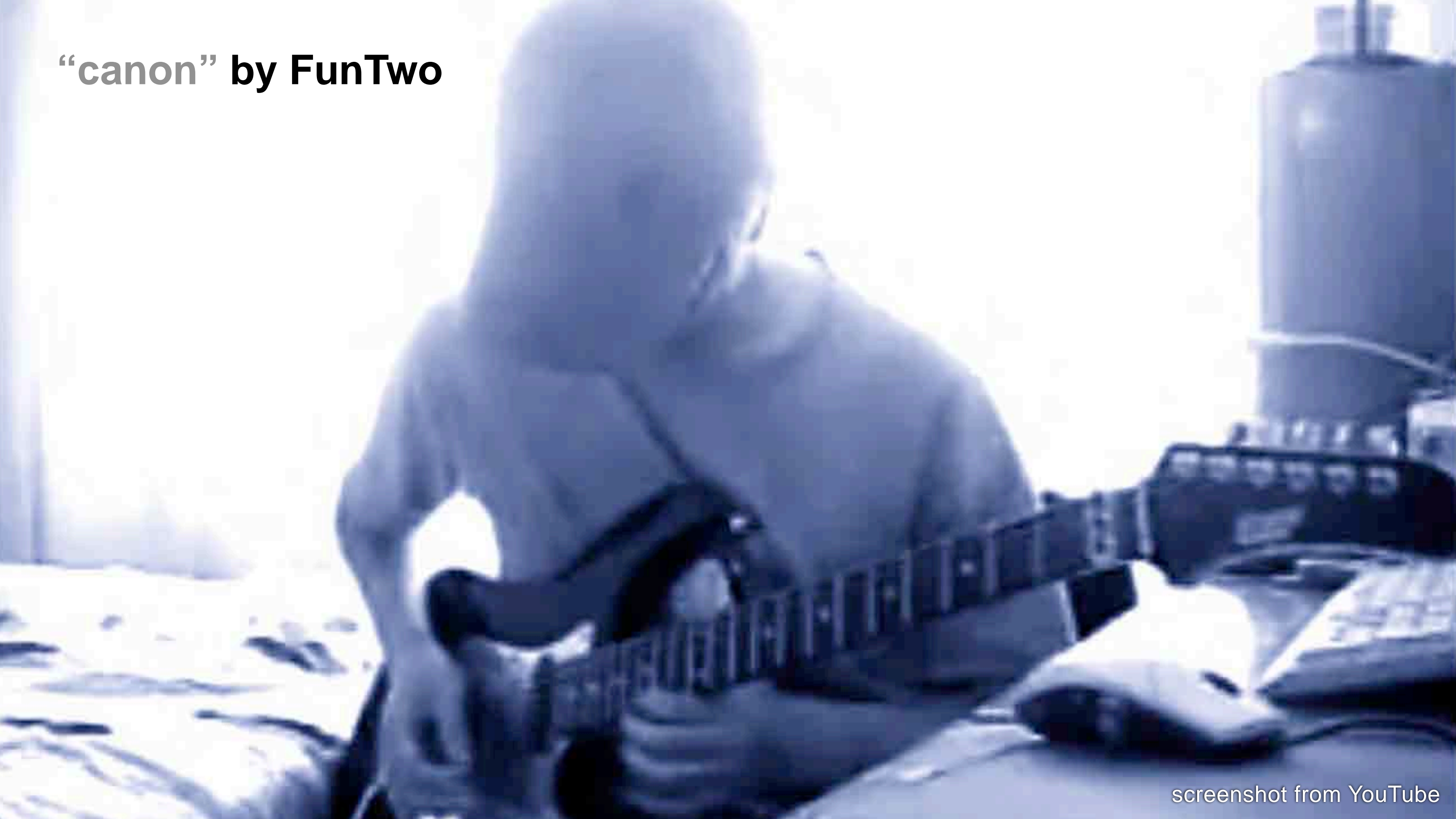
marshall mcluhan

**technologies are
extensions of the self**

**“We’re always living way
ahead of our thinking...”**



“canon” by FunTwo



Grand Piano

the new production studios



media libraries

Library of Congress

media libraries

Instagram

Library of
Congress

media libraries



media libraries

The image shows the Facebook logo, which consists of the word "Facebook" in a blue, sans-serif font. The logo is centered on a light blue background. The entire logo is contained within a white rectangular frame that has a slight drop shadow, giving it a 3D effect against the dark background of the slide.

media libraries

140,000,000,000

Facebook

+1,000,000%

pompeii

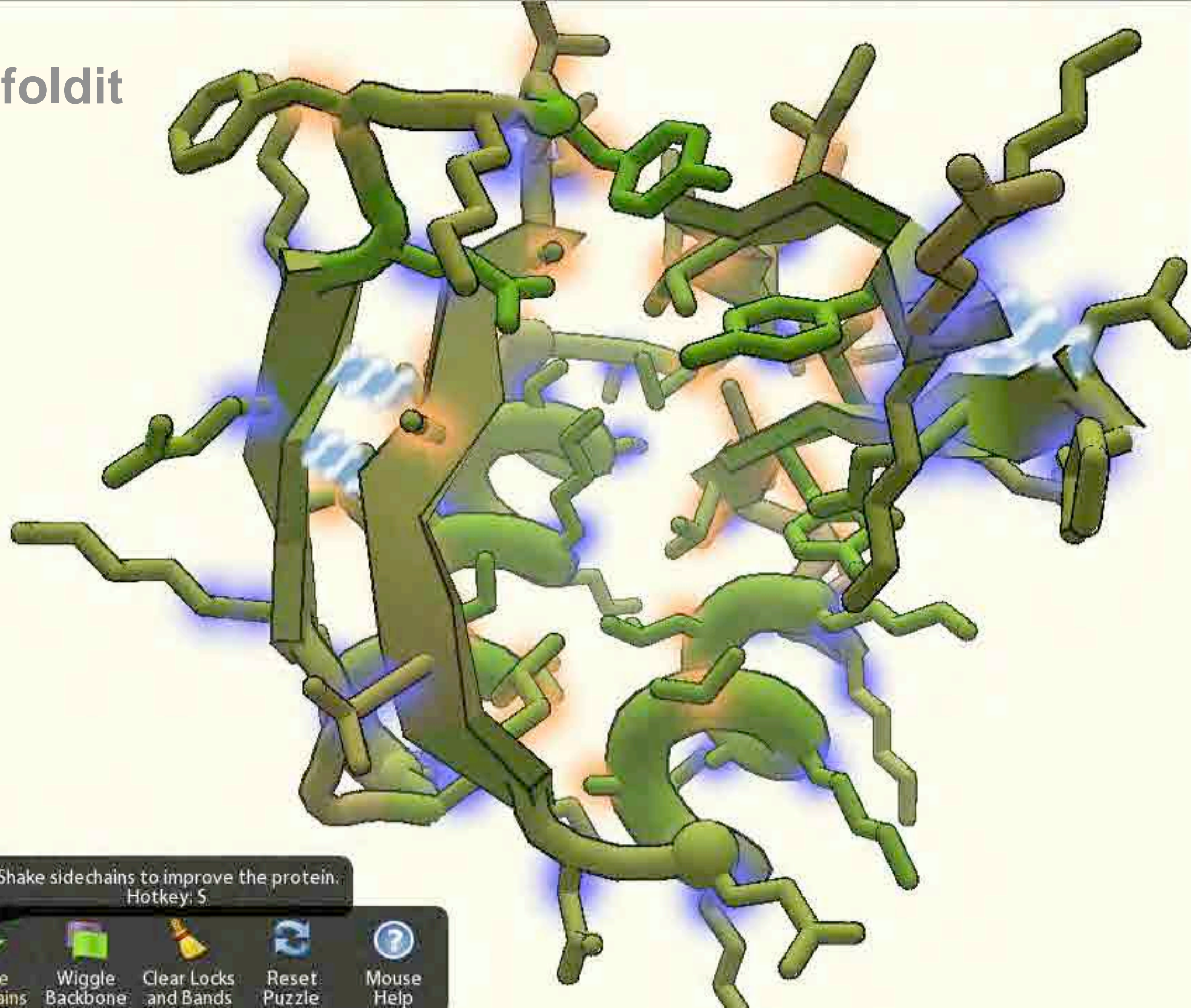


photo courtesy of Wikimedia

pompeii



foldit



Rank: 17

Score: 9092

48: Pro Peptide

▼ Group Competition

#	Group Name	Score
1	The Lone Folder	9388
2	Street Smarts	9367
3	Illinois	9303
4	Berkeley	9255

▼ Player Competition

16	psen	-	9098
17	kathleen	9092	9092
18	versat82	-	9091
19	darktorres	-	9081
20	ccarrico	9032	9066
21	mbjorkegren	-	9048
22	sslickerson	-	9038

▶ Chat

Shake sidechains to improve the protein.
Hotkey: S

Shake Sidechains Wiggle Backbone Clear Locks and Bands Reset Puzzle Mouse Help

curing AIDS...

BRIEF COMMUNICATIONS

nature
structural &
molecular biology

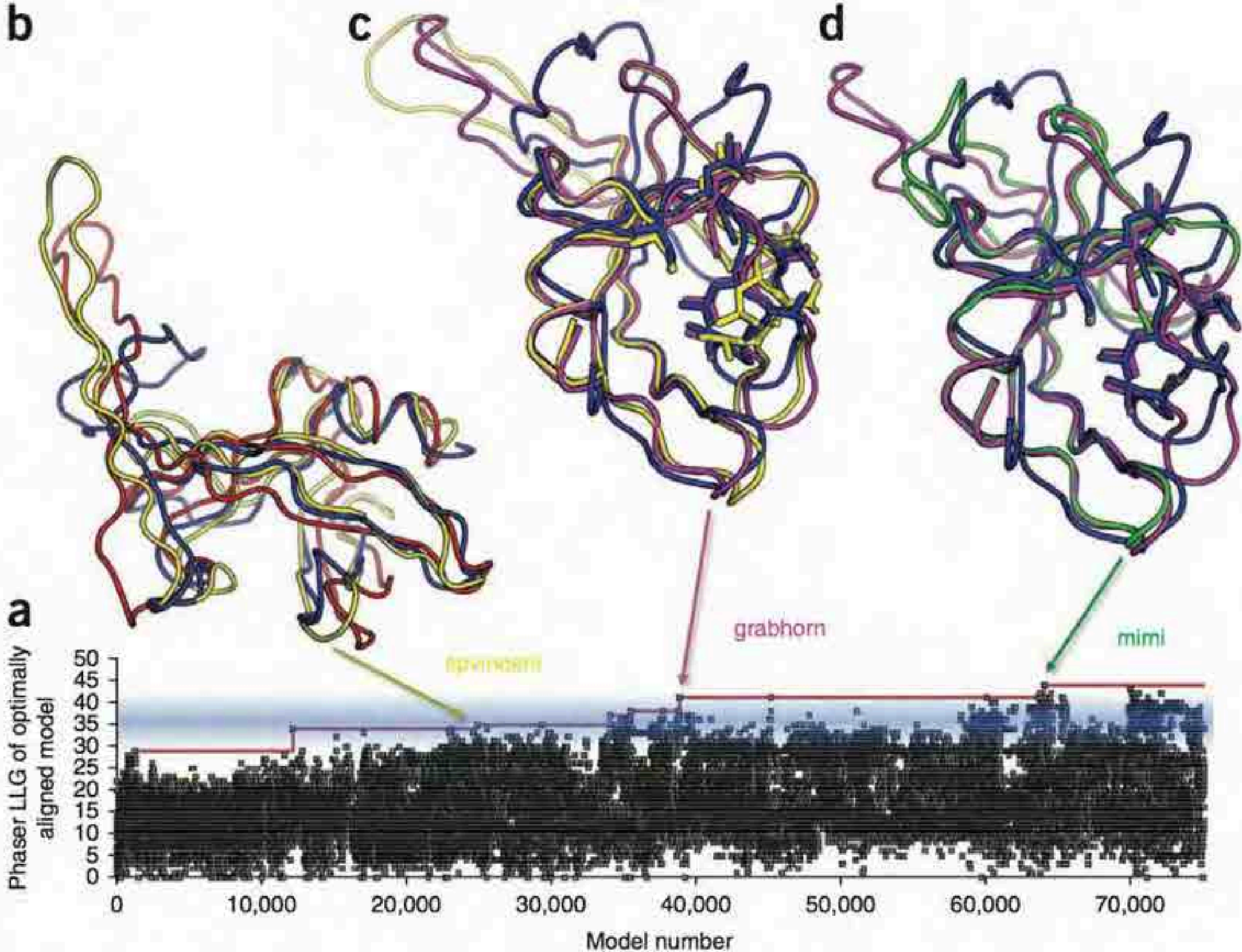
Crystal structure of a monomeric retroviral protease solved by protein folding game players

Firas Khatib¹, Frank DiMaio¹, Foldit Contenders Group, Foldit Void Crushers Group, Seth Cooper², Maciej Kazmierczyk³, Mirosław Gilski^{3,4}, Szymon Krzywda³, Helena Zabranska⁵, Iva Pichova⁵, James Thompson¹, Zoran Popović², Mariusz Jaskolski^{3,4} & David Baker^{1,6}

Following the failure of a wide range of attempts to solve the crystal structure of M-PMV retroviral protease by molecular replacement, we challenged players of the protein folding game Foldit to produce accurate models of the protein. Remarkably, Foldit players were able to generate models of sufficient quality for molecular replacement and subsequent structure refinement. Insights for

Structure Prediction (CASP) experiment was an ideal venue in which to test this. CASP is a biennial experiment in protein structure prediction methods in which the amino acid sequences of structures that are close to being experimentally determined—referred to as CASP targets—are posted to allow groups from around the world to predict the native structure (<http://predictioncenter.org/casp9/>). Each group taking part in CASP is allowed to submit five different predictions for each sequence. Foldit participated as an independent group during CASP9 and made predictions for the targets with fewer than 165 residues that the CASP organizers did not indicate as oligomeric. For targets with homologs of known structure—the Template-Based Modeling category—Foldit players were given different alignments to templates predicted by the HHpred server³ via the new Alignment Tool. Despite these new additions to the game, the performance of Foldit players over all CASP9 Template-Based Modeling targets was not as good as those of the best-performing methods, which made better use of information from homologous structures; extensive energy minimization used by Foldit players tended to perturb peripheral portions of the structure. The conformations present in homologs are identifiable homo-

curing AIDS...



communal creation...

communal creation...



participative authority...



participative authority...

more access yields
more participation



participative authority...

**more access yields
more participation**

**more participation yields
more custodianship**



participative authority...



**more access yields
more participation**

**more participation yields
more custodianship**

**more custodianship
yields more diversity**

participative authority...



more access yields
more participation

4
more diversity
yields more
access

2
more participation yields
more custodianship

3
more custodianship
yields more diversity

participative authority...



more access yields
more participation

4
more diversity
yields more
access

2
more participation yields
more custodianship

3
more custodianship
yields more diversity

a widening gap...



photo courtesy of the US Geological Survey

Charles Eames

Eames Chair 1946

IBM Pavilion, NY World's Fair 1964

"Powers of Ten" 1977



charles eames



charles eames

“**Design is a plan for arranging elements in such a way as best to accomplish a particular purpose...**”

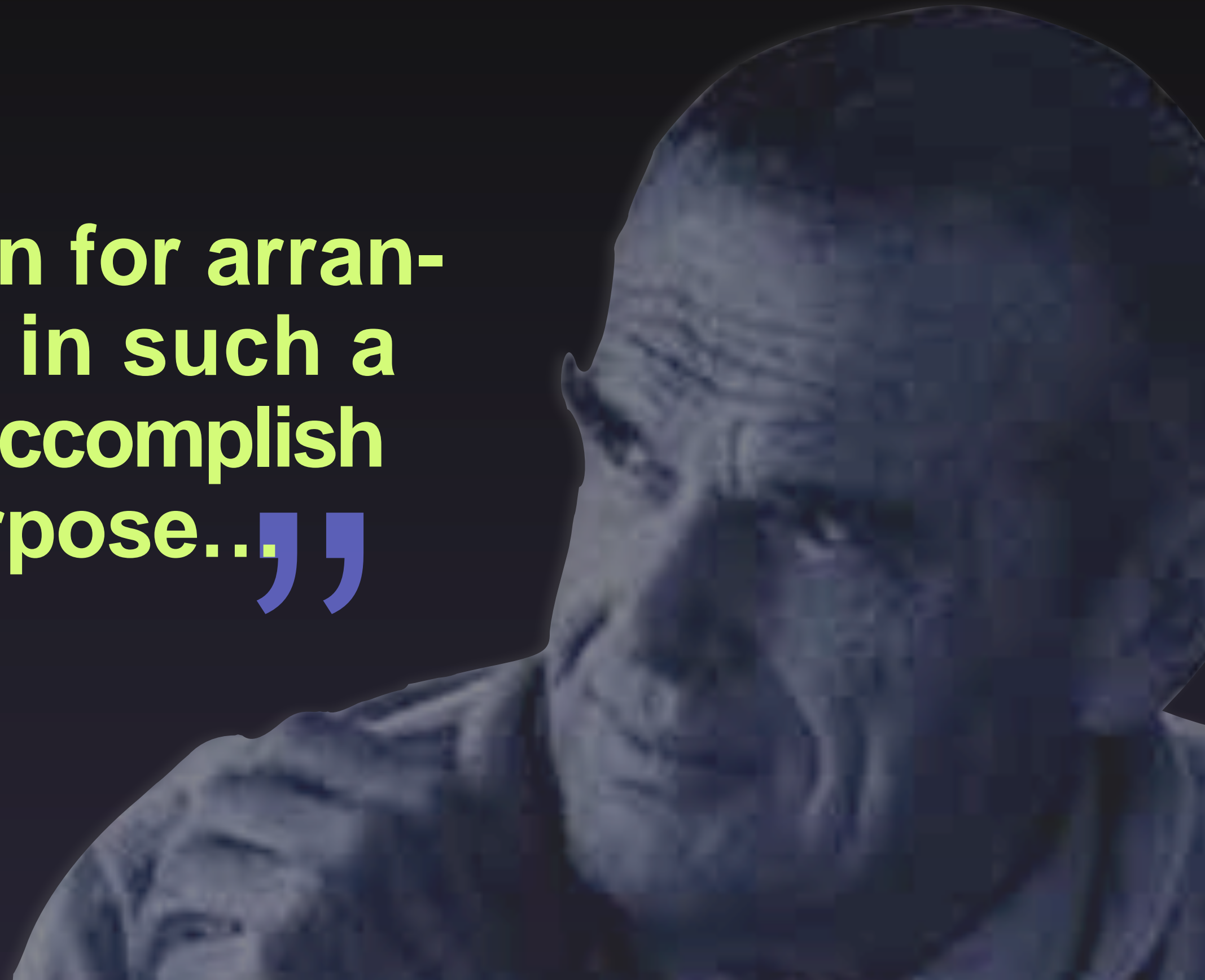




photo by Emory Maiden

A blue-tinted photograph of an empty classroom. The room is filled with rows of desks and chairs, arranged in a traditional classroom layout. The desks are light-colored, and the chairs have a wire mesh back. The lighting is soft, and the overall atmosphere is quiet and isolated. The text "isolated spaces designed for rhetorical questions" is overlaid in the center in a bold, yellow font with a dark outline.

**isolated spaces designed
for rhetorical questions**

$$t-10$$

$$\frac{4}{t(t+2)}$$

$$\frac{-3t-14}{t(t+2)}$$

$$\frac{2(x+5)}{5-x} = \frac{2}{5-x}$$

$$17. 2\sqrt{5} + 3$$

$$19. 8\sqrt{\quad} \quad 8\bar{x} +$$

$$2\sqrt{\quad} \quad 4m^2 - 5\sqrt{3}$$

$$-\sqrt[3]{54} + 2\sqrt[3]{16}$$

$$25. 2\sqrt[3]{27x} - 2\sqrt[3]{8x}$$

$$27. \sqrt[3]{x^2y} - \sqrt[3]{8x^2y}$$

$$29. 3x\sqrt[3]{xy^2} - 2\sqrt[3]{8x}$$

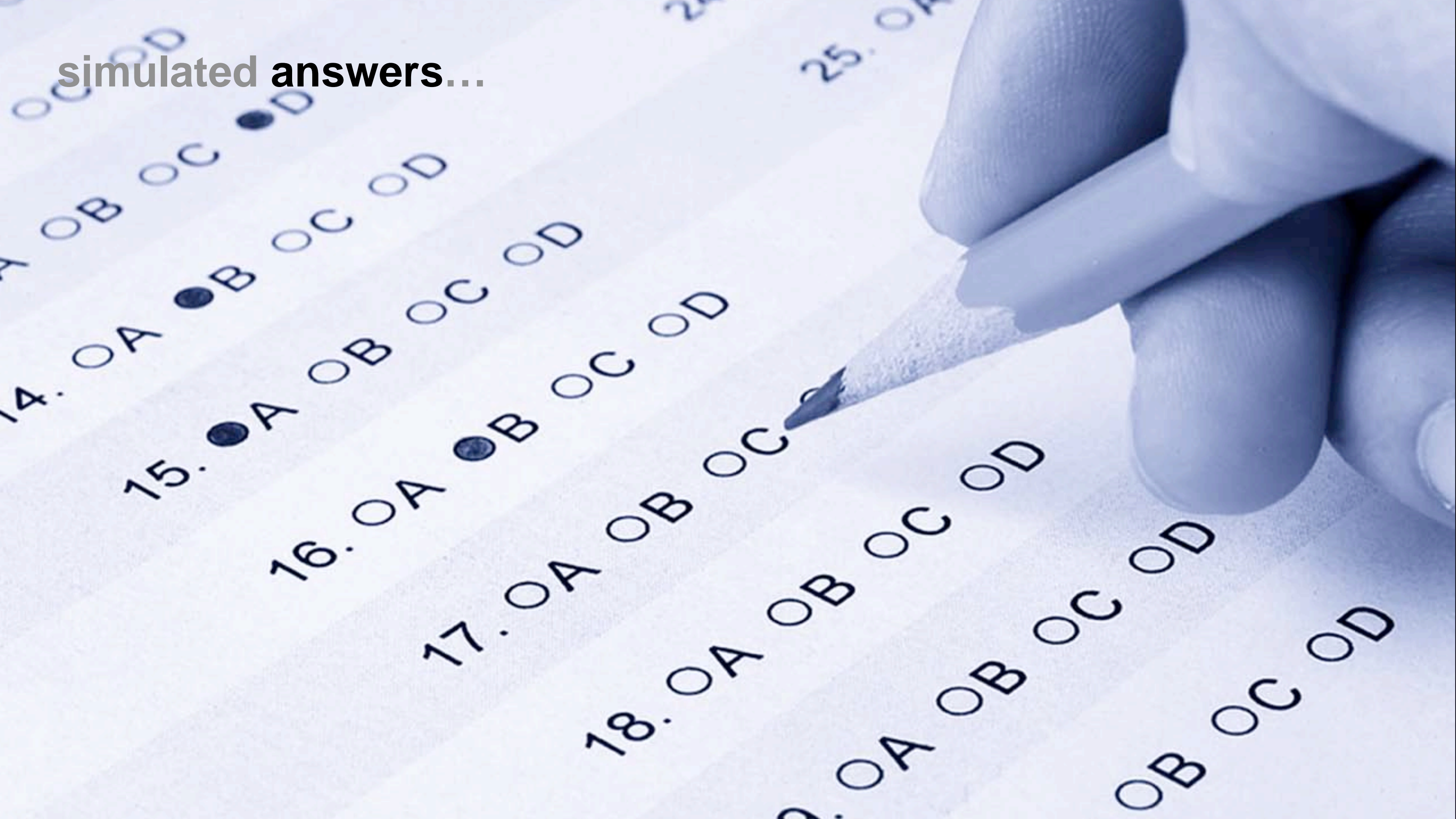
$$31. 5\sqrt[4]{32} + 3\sqrt[4]{162}$$

$$33. 3\sqrt[4]{x^5y} - 2x\sqrt[4]{xy}$$

$$35. 2\sqrt[4]{32a^3} + 5\sqrt[4]{2a}$$

$$7. \sqrt[3]{64xy^2} + \sqrt[3]{27x}$$

simulated answers...



14. A B C D

15. A B C D

16. A B C D

17. A B C D

18. A B C D

19. A B C D

20. A B C D

21. A B C D

22. A B C D

23. A B C D

24. A B C D

25. A B C D

those questions presume
a **static world**...

seth godin



seth godin

“**Never again is someone going to pay you to give them answers they can look up online. They'll only pay you to solve problems that don't yet have answers.**”



classroom structure

control
&
isolation

the standard model...

my
desk

the standard model...

**their
desk**



photo by Francis Eatherington



5,000 hours

50 hours ×

25 students ×

4 courses

banning tools



a changing formula...

ingenuity

a changing formula...

research collaboration

$$\left(\frac{r + c}{x} \right) t = \text{ingenuity}$$

context technology

a changing formula...

research collaboration

$$\left(\frac{r + c}{x} \right) t = \text{cheating}$$

context technology

a changing formula...

research

collaboration

$$\left(\frac{r + c}{x} \right) t =$$

context technology

antiquated paradigms...



the future...

does portability

the future...

equal mobility?

portability v. mobility...



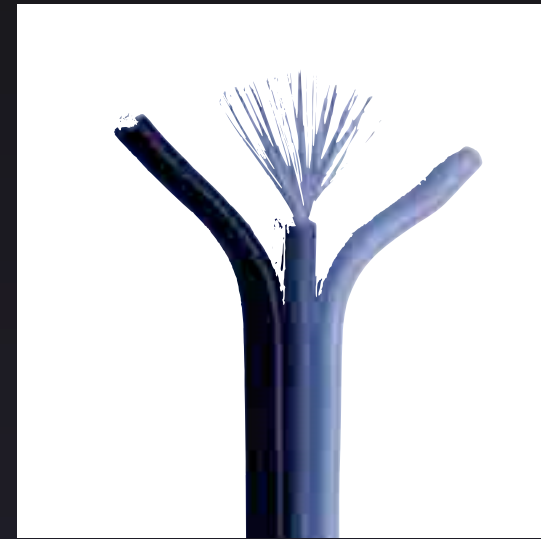
carriable



unplugged



long-term



unwired



unsituated

antiquated futures



antiquated futures

mobile learning? empowerment?

Frederick W. Taylor

Principles of Scientific Management 1911





photo courtesy of Wikimedia

expectations for students...

expectations for students...

attendance

compliance

uniformity

monocultures...



the cavendish banana

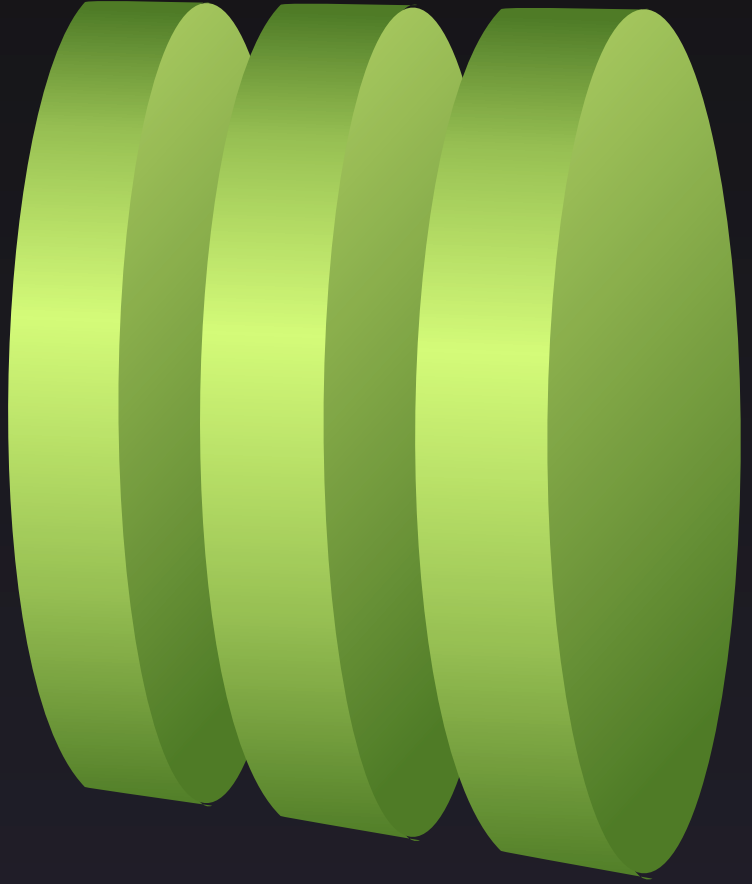
why 1-to-1?

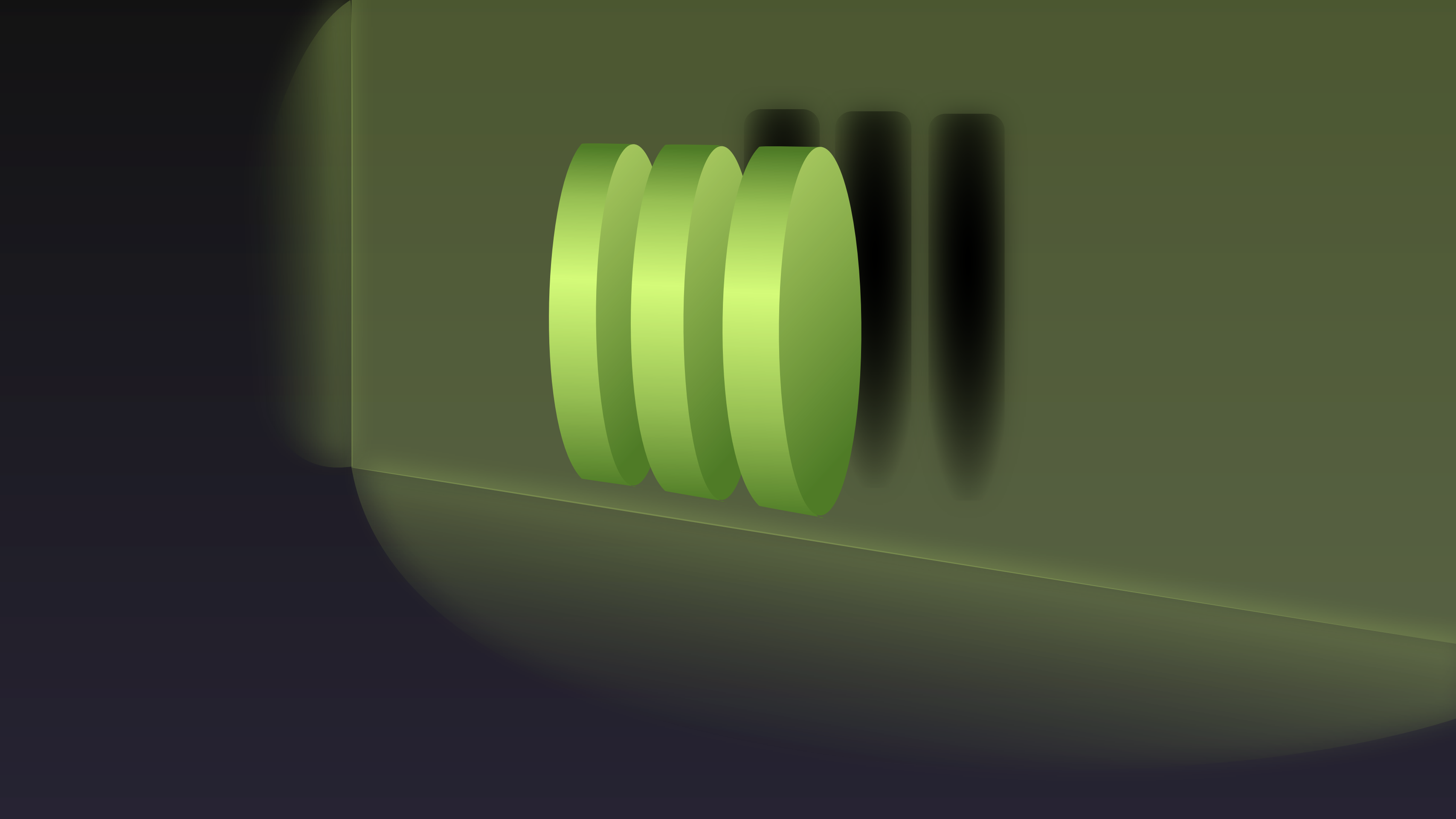
mobile futures



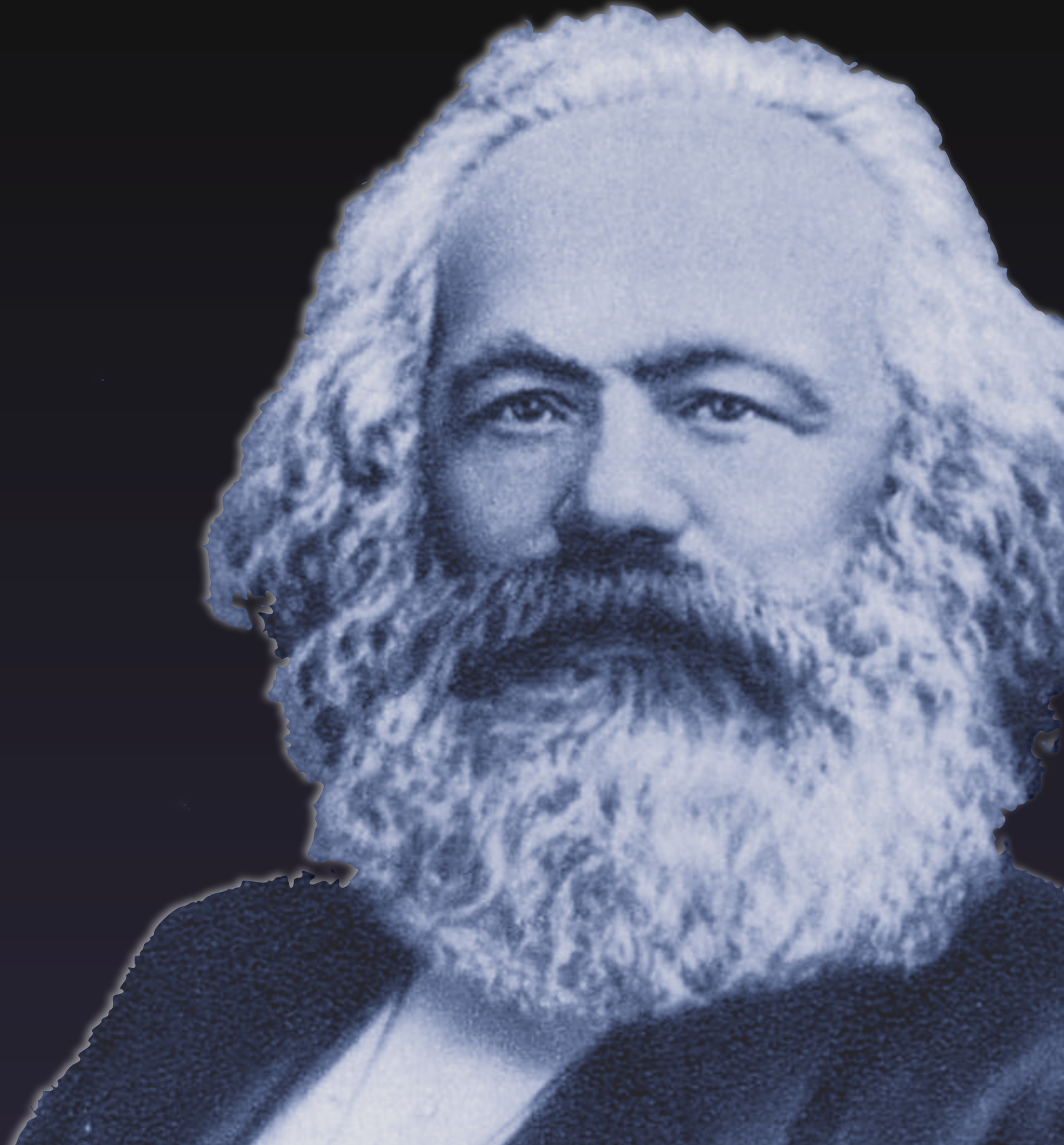
more facets....





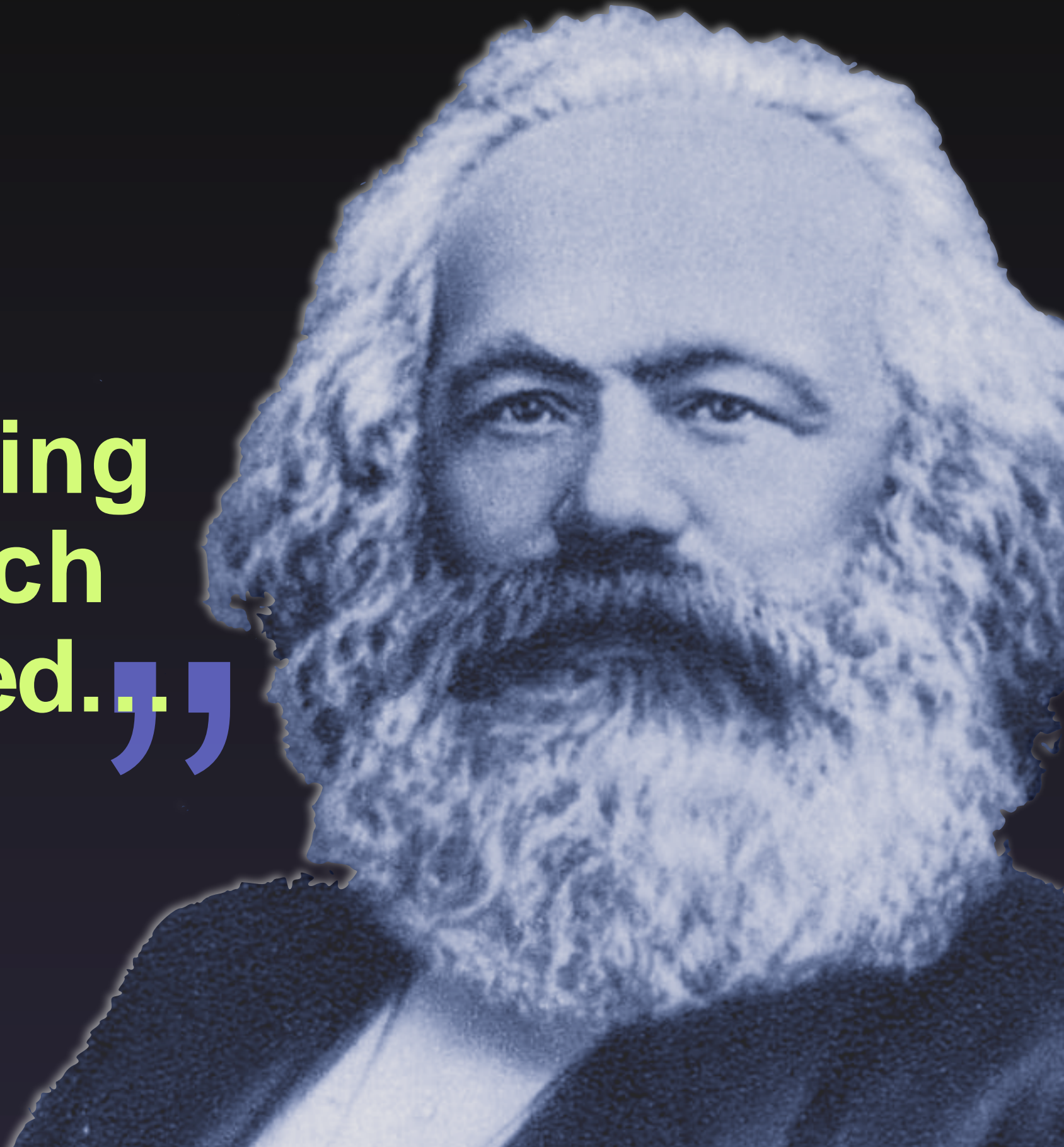


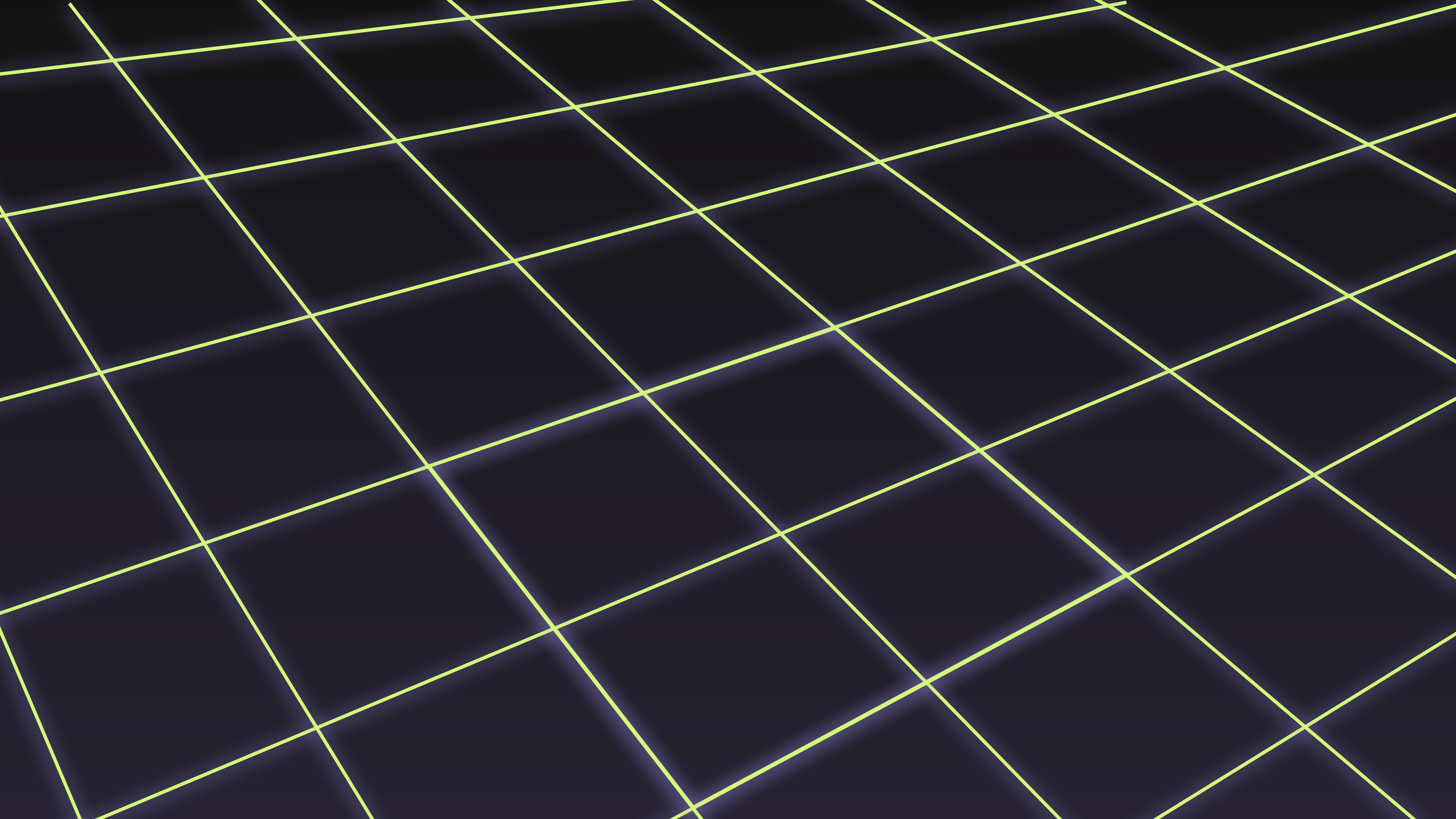
karl marx

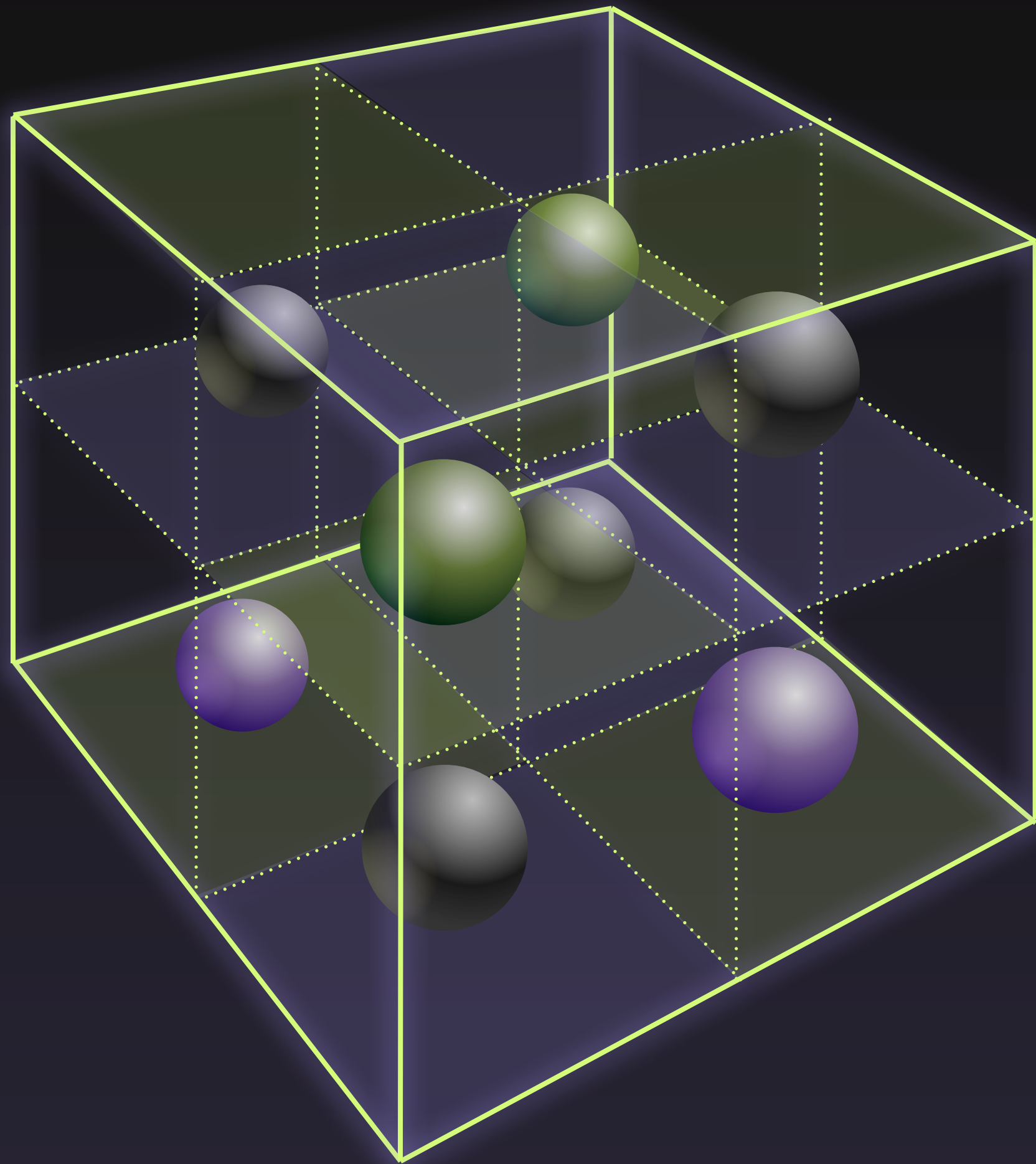


karl marx

“From each according to his ability to each according to his need.”





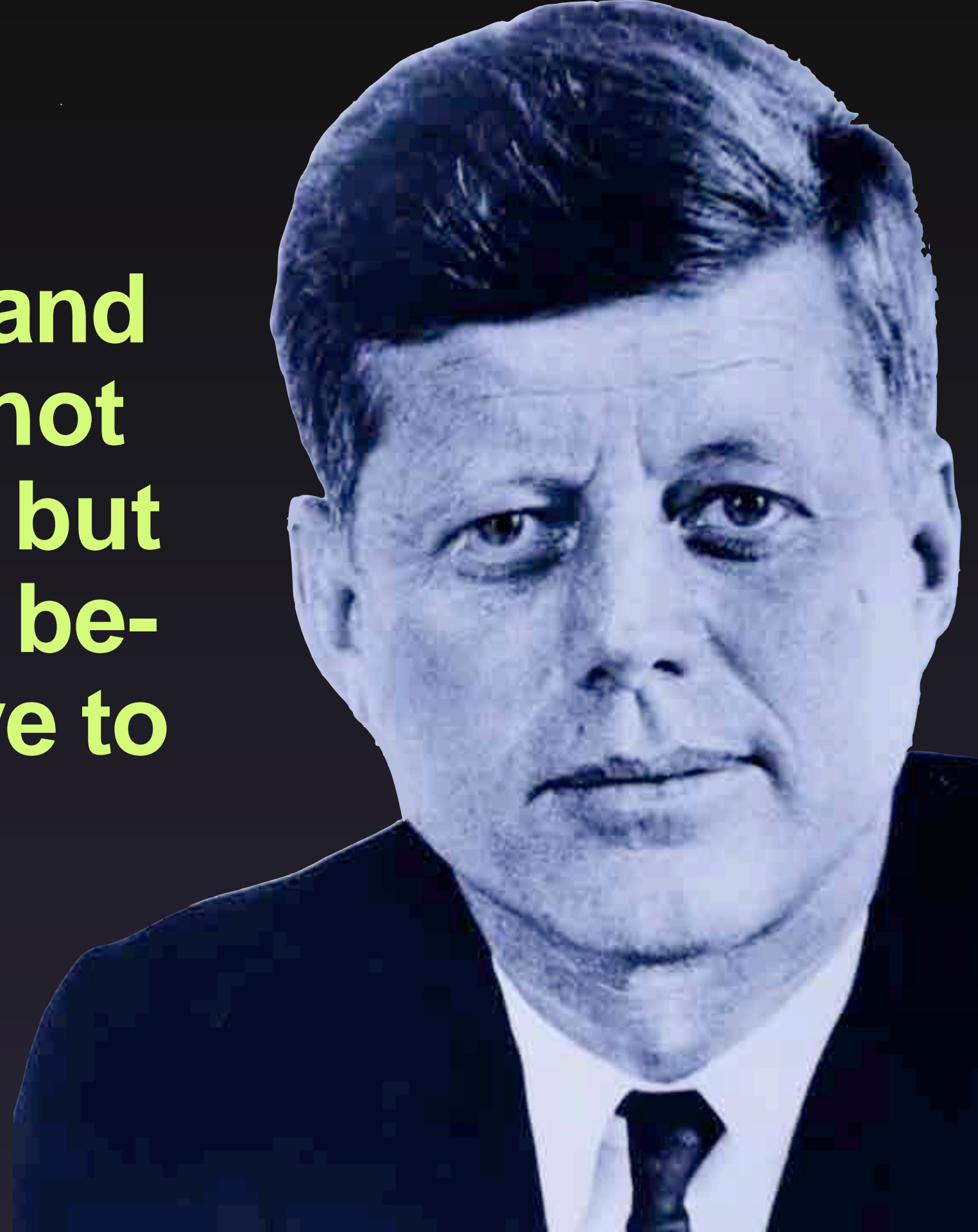


john f. kennedy



john f. kennedy

“**We go to the moon [...] and do these other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills...**”



think

create

publish

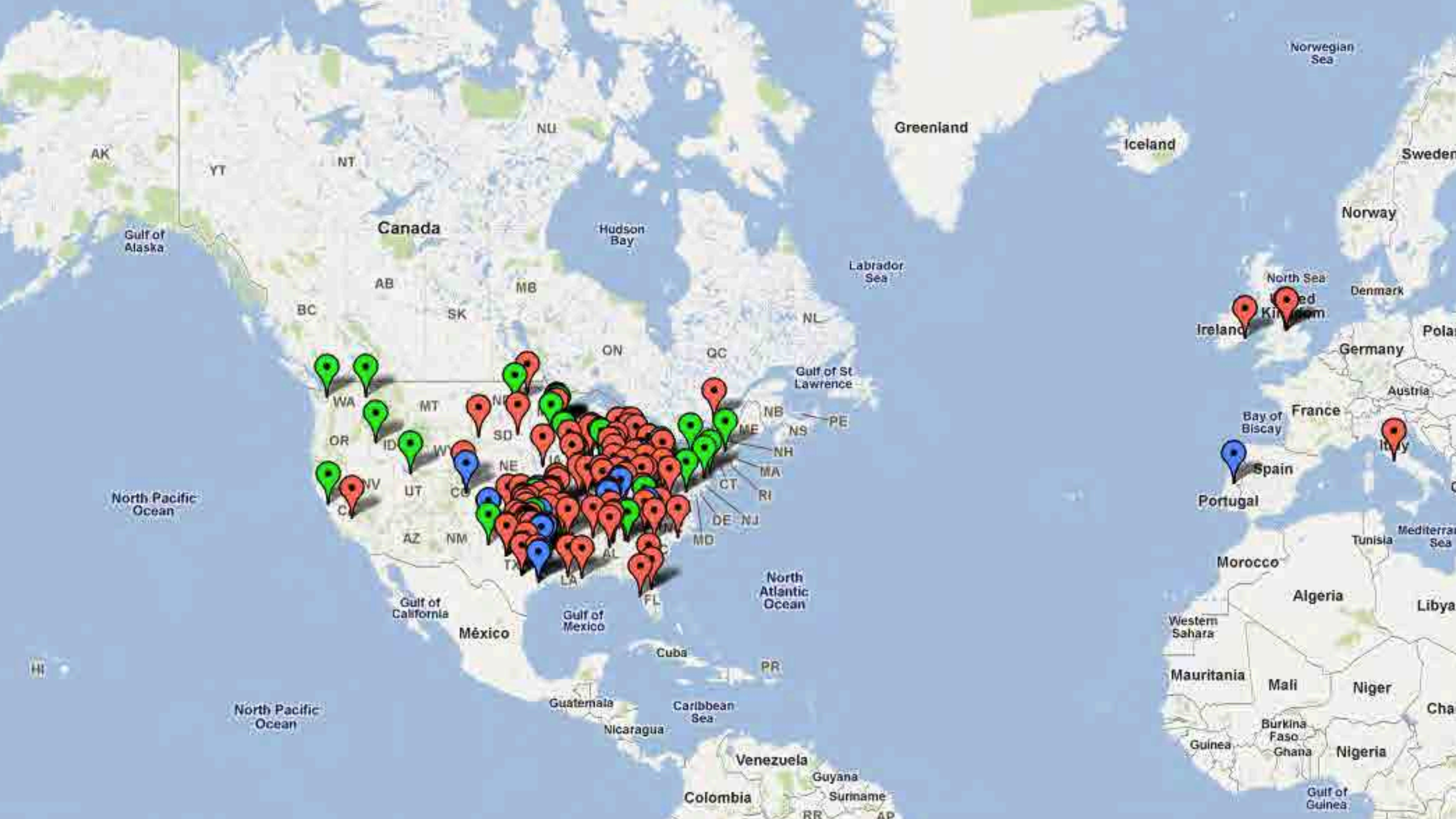








www.redthreadmovement.org



INTERNETAL

Living-Calling Training

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the future...



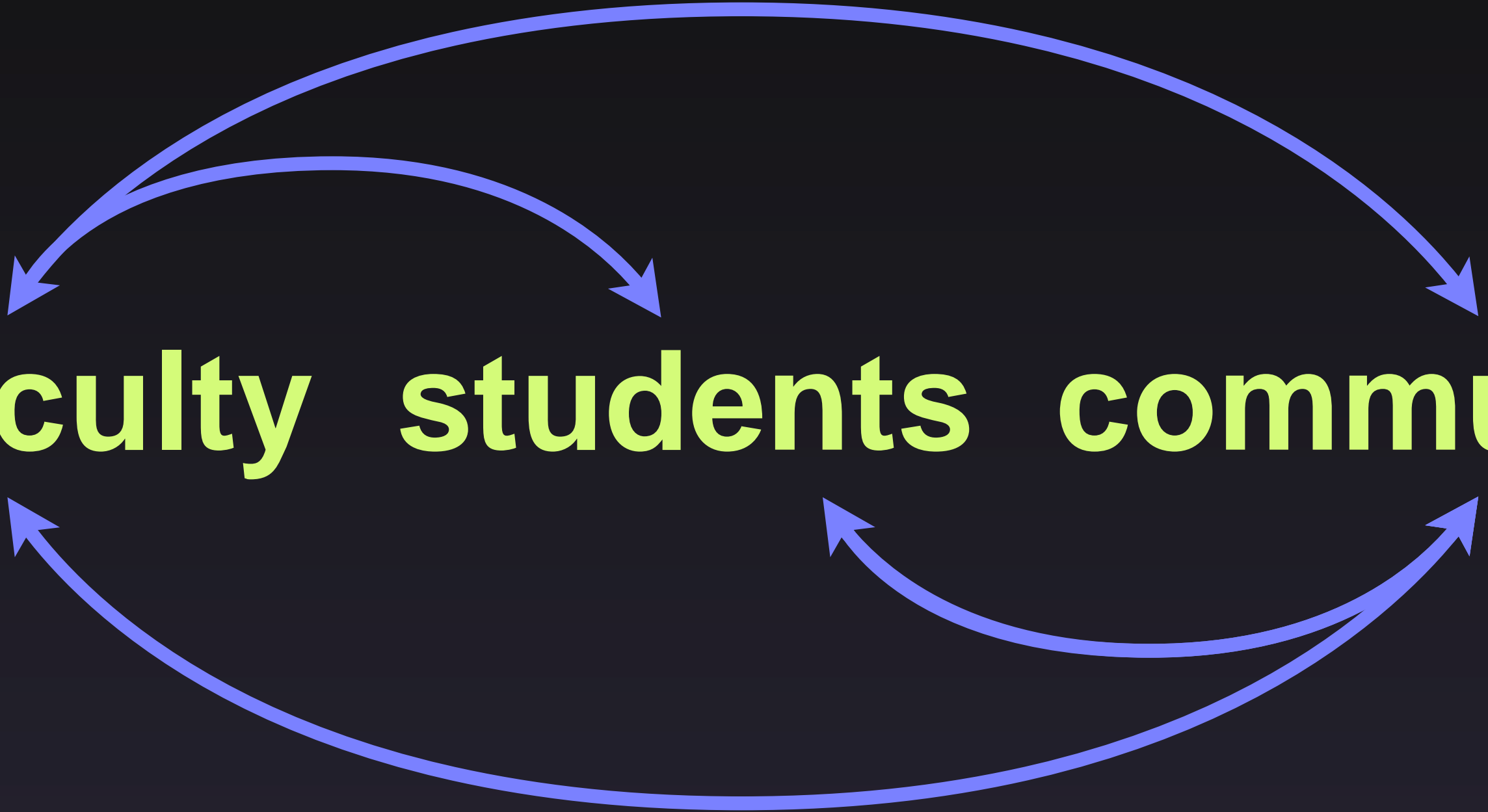
CitySquare

faculty students community

faculty students community



faculty students community



a new paradigm...

location

location

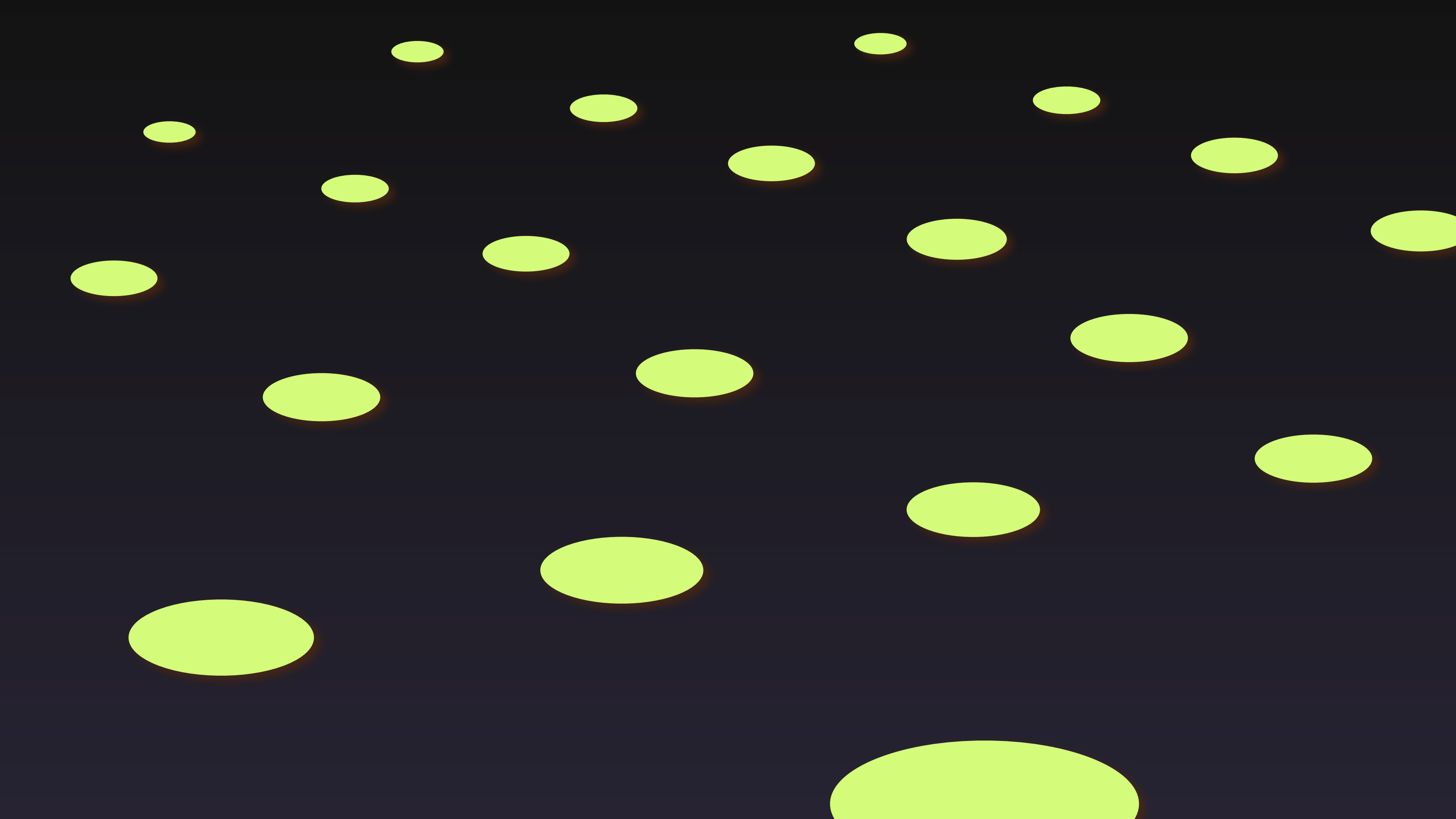
location

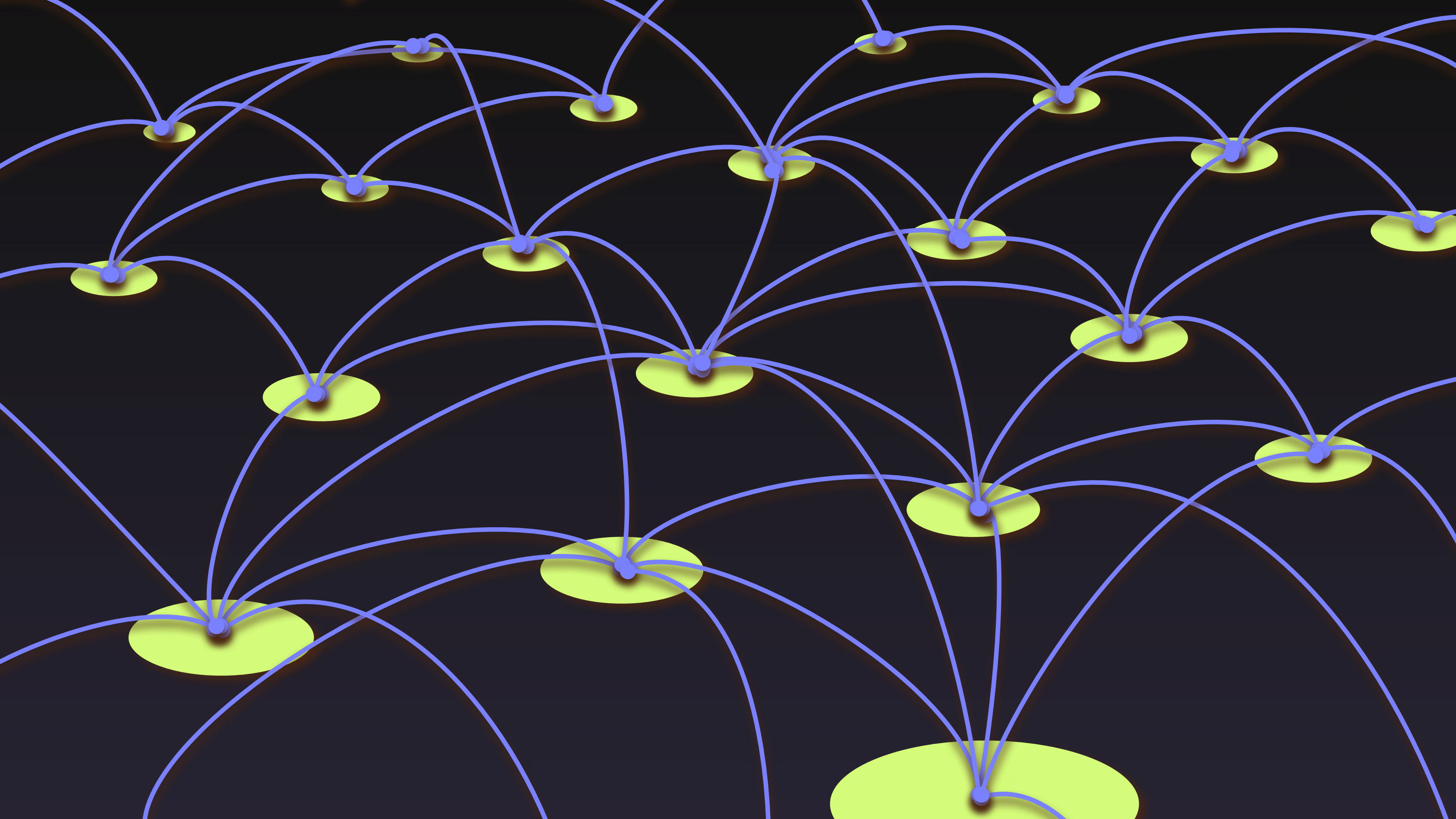
a new paradigm...

connection

connection

connection







a new model...

linearity
isolation
hierarchy
simulation

a new model...

recursivity
connection
community
engagement

the new classroom...



photo courtesy of NASA

thank you.

email
rankinw@acu.edu
twitter