Collaboration:
A Dialogue on the Product and Process of Education

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Framework for 21st Century Competencies and Student Outcomes

What are the 21st Century Skills Every Student Needs?

“…collaborate in a discussion that crosses boundaries and create space for intervention”

hooks (1994, p.129)

“We often have no concrete examples of individuals who actually occupy different locations within structures, sharing ideas with one another, mapping out terrains of commonality, connection, and shared concern with teaching practices”

hooks (1994, p.130)

“Collaboration would be great, if it wasn’t for the people you have to work with!”

Lee (2017)

“Collaboration sounds great, until I do all the work”

McMorran (2017)
Collaboration as partnership
Matsutake Worlds Research Group

The Matsutake Worlds Research Group documents the rich variety of cultural and ecological lifeways emerging across matsutake’s path. We study matsutake picking and the matsutake commodity chain, showing how diverse cultures and ecologies engage each other in the matsutake trade. We are interested in matsutake cultures and ecologies as multispecies worlds where life continues in the midst of great disturbances.

This project has depended on many layers of collaboration and much generosity.

The Matsutake Worlds Research Group consists of Anna Tsing (UC Santa Cruz), Shiho Satsuka (University of Toronto), Miyako Inoue (Stanford University), Michael Hathaway (Simon Frazer University), Lieba Faier (UCLA), and Timothy Choy (UC Davis).

Anna Tsing dreamed up this part of the project. Sara Dosa (San Francisco Film Institute) is the editor of film footage and web production manager. Elaine Gan built this web site. Joanie McCollom worked on web design. Megan Moodie (UC Santa Cruz) shot the film footage in Oregon. Debra Klein (Gavilan College) edited the films from Finland. Samuel Kenji High, Sean Maisel, and Peter Hokama contributed to film editing and project ideas. Hjorleifur Jonsson (Arizona State University), Lue Vang, and David Pheng were key collaborators in the Oregon-Cascades research. Yang Xueqing (Kunming Institute of Botany) worked with Michael Hathaway and Anna Tsing on the interviews in Yunnan. Shiho Satsuka and Anna Tsing worked together on interviews in Japan. Aude Castagna contributed cello music. Fair Use archival film footage is courtesy of archive.org.

Grants from the Toyota Foundation and the University of California, Santa Cruz, Committee on Research helped make this project possible.
Collaboration as traitorous cooperation with the enemy
“…an estimated 318 teams of students from 162 universities and 16 countries [who] have worked to make a billionaire’s dream come true.”

“…as if Musk owns his own Hyperloop research university, paid for by other universities and their students.”

“...help cultivate ties with research sponsors, align the curriculum to marketable skills, and, ideally, help graduates find work.”

“They are not just exploitative but superexploitative, because students don’t simply labor for free, they pay tuition or accrue student-loan debt for the privilege.”

“…collaborative challenge: the ability to work together to develop agreements about the best ways to address difficult problems”

Koschmann (2012)
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<th>Collaborative Advantage</th>
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“Our key message is that managing to collaborate involves actively managing (in order) to collaborate.”

Huxham and Vangen (2005, p.4)
Competitions “make the few winners and participants feel good, they do little in bringing the community as a whole together.”

“Like you've said in class many times, there are more in walls than bricks and mortar. Just like how we're trying to remedy the bland, dead, whiteness of the AS8 walls now, the approaches we take should not only reflect what we want the walls to look like, but what we want the walls to represent.”
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The Second Law of Thermodynamics states that a robot must not increase entropy, unless this conflicts with the First Law.

Close enough.
“Extremely knowledgeable in all areas of physical chemistry. Never fails to simplify and explain complicated concepts. Knows exactly how a student thinks and always manages to answer common questions. Always goes an extra mile for the sake of ensuring students understand even the most basic of concepts.”

Student X (2011)

“I’ve never been so inspired to work hard for a module (especially since it’s a very difficult one) by a tutor. Thank you Dr Lee, I can't possibly describe his dedication and passion towards teaching in words, and I really couldn’t have asked for a better tutor.”

Student Y (2011)
DID THE SUN JUST EXPLODE?
(IT'S NIGHT, SO WE'RE NOT SURE)

THIS NEUTRINO DETECTOR MEASURES WHETHER THE SUN HAS GONE NOVA.

THEN, IT ROLLS TWO DICE. IF THEY BOTH COME UP SIX, IT LIES TO US. OTHERWISE, IT TELLS THE TRUTH.

LET'S TRY.
DETECTOR! HAS THE SUN GONE NOVA?

ROLL
YES.

FREQUENTIST STATISTICIAN:

THE PROBABILITY OF THIS RESULT HAPPENING BY CHANCE IS \( \frac{1}{36} = 0.027 \). SINCE \( p < 0.05 \), I CONCLUDE THAT THE SUN HAS EXPLODED.

BAYESIAN STATISTICIAN:

BET YOU $50 IT HASN'T.

“Frequentists vs. Bayesians” by xkcd (https://xkcd.com/1132/) / CC BY 2.5
“The power of collective capacity is that it enables ordinary people to accomplish extraordinary things—for two reasons. One is that knowledge about effective practice becomes more widely available and accessible on a daily basis. The second reason is more powerful still—working together generates commitment.”

Fullan (2010, p.72)

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Fullan (2010, p.72)
Thank You