Learners as Agents of Data Integration and Transfer

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PESC Fall 2018 Data Summit
October 17, 2018, San Francisco
“Nontraditional” is the New Traditional

National Center for Education Statistics (2018)

- 1 in 5 is at least 30 years old
- About half are financially independent from their parents
- 1 in 4 is caring for a child
- 47 percent go to school part time at some point
- A quarter take a year off before starting school
- 2 out of 5 attend a two-year community college
- 44 percent have parents who never completed a bachelor's degree
Defining Lifelong and Lifewide Learning


citation: Chen (2009); Skolverket (2000)
agents of integration
individuals who are actively working to perceive the connections they make and convey them effectively to others

Rebecca S. Nowacek, Agents of Integration: Understanding Transfer as a Rhetorical Act (2011)
http://dschool.stanford.edu/
DESIGN IS A PROCESS...

- Empathize
- Define
- Ideate
- Prototype
- Test
Ambiguity comes from the Latin *ambiguus*, which was formed by combining *ambi-* (meaning "both") and *agree* ("to drive")
THE FUTURE HAS NEVER BEEN MORE UNCERTAIN
travel
teach
high school
grad school
college
education
unemployment
vacation
OVERemployment
work
UNDERemployment
retire
elementary school
self care
volunteering
employment
caregiving

Hasso v. Institute of Design at Stanford University (2018)
LEARNING & LIVING AT STANFORD

An exploration of undergraduate experiences in the future
As a unique, living artifact of competencies, the skill-print became an invaluable tool for employers to assess the potential of a candidate.

Stanford 2025
Making Transcripts More Than ‘a Record of Everything the Student Has Forgotten’

By Katherine Mangan  |  JULY 15, 2015

AUSTIN, TEX.
Stanford University’s registrar, Thomas C. Black, isn’t surprised that fewer employers are asking for college transcripts these days.

The old-school version, with its list of abbreviated course titles, credit hours, and grades, might as well broadcast, "Here is a record of everything the student has forgotten," says Mr. Black, who is also associate vice provost for student affairs.

"There’s a clamor," he says, "for something more meaningful."

That "something" is a form of extended transcript or digital portfolio that captures more of what students are learning both inside and outside the classroom.

There could be links for study abroad and internships, robotics competitions and volunteer activities. An electronic portfolio could include examples of creative writing or artwork, or an engineering prototype a student developed.
# Stanford University Official Transcript

**Office of the University Registrar**
Stanford, CA 94305-6032

**Print Date:** 11/08/2017

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## Academic Program

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBRO 241</td>
<td>Molecular Cell, and Genetic Biology</td>
<td>A-</td>
</tr>
<tr>
<td>CBRO 233</td>
<td>Cancer Biology Journal Club</td>
<td>B</td>
</tr>
<tr>
<td>GENE 200</td>
<td>Advanced Genetics</td>
<td>B</td>
</tr>
</tbody>
</table>

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## Beginning of Academic Record

<table>
<thead>
<tr>
<th>2007-2008 Autumn</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBRO 241</td>
<td>A-</td>
</tr>
<tr>
<td>CBRO 233</td>
<td>B</td>
</tr>
</tbody>
</table>

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## 2007-2008 Winter | Grade |
<table>
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<tr>
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<tbody>
<tr>
<td>CBRO 241</td>
<td>A-</td>
</tr>
<tr>
<td>CBRO 233</td>
<td>B</td>
</tr>
</tbody>
</table>

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## 2008-2009 Autumn | Grade |
<table>
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</thead>
<tbody>
<tr>
<td>CBRO 241</td>
<td>A-</td>
</tr>
<tr>
<td>CBRO 233</td>
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## 2008-2009 Winter | Grade |
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<td>CBRO 233</td>
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</tbody>
</table>

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## Enhanced Transcript
- course descriptions
- faculty profiles
eDissertations & theses
honors papers
ePortfolio
study abroad
papers & research
service & internships
certificates & badges

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**Page 1 of 2**

**Key to Transcript**

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**Copy of Certified PDF**

**Key to Transcript on Final Page**
Applied and project-based learning experiences, particularly internships or apprentice experiences, give recent college graduates an edge with both employer audiences.

Would be MUCH More Likely to Hire Recent Grad with this Experience

- Internship/apprenticeship with a company or organization: 52% (business executives) vs. 60% (hiring managers)
- Project in community w/people from different backgrounds/cultures: 29% (business executives) vs. 37% (hiring managers)
- Multiple courses requiring significant writing assignments: 29% (business executives) vs. 37% (hiring managers)
- Research project done collaboratively with peers: 28% (business executives) vs. 33% (hiring managers)
- Advanced, comprehensive senior project (thesis, etc.): 28% (business executives) vs. 28% (hiring managers)
- Service learning project with a community organization: 24% (business executives) vs. 32% (hiring managers)
- Study abroad program: 18% (business executives) vs. 16% (hiring managers)

Employer responses to questions about the likelihood of hiring recent graduates with these experiences varied. For instance, 93% of business executives and 94% of hiring managers said they would be much more likely to hire a recent graduate with an internship/apprenticeship experience. Additionally, 72% of business executives and 83% of hiring managers indicated they would be more likely to hire a recent graduate with a project in community w/people from different backgrounds/cultures experience.
Key Attributes Employers Seek on a Resume

- Problem-solving skills - 82.9%
- Ability to work in a team - 82.9%
- Communication skills (written) - 80.3%
- Leadership - 72.6%
- Strong work ethic - 68.4%
- Analytical/quantitative skills - 67.5%
- Communication skills (verbal) - 64.1%
- Initiative - 60.7%
- Detail-oriented - 59.8%
- Flexibility/adaptability - 54.7%
- Technical skills - 48.7%
- Interpersonal skills (relates well to others) - 48.7%
Flipping the Transcript: The Scholarship Record

Formal Reasoning

manipulate a system of symbols logically and consistently so as to derive or prove new results of particular interest or utility.

- PHIL 150: Basic Concepts in Mathematical Logic (PHIL 250)
- PHIL 151: First-Order Logic (PHIL 251)
- PHIL 154: Modal Logic (PHIL 254)
- PHIL 166: Probability: Ten Great Ideas About Chance (PHIL 266, STATS 167, STATS 267)

solve equations or optimization problems through translation to a standardized formalism.

- MATH 51: Linear Algebra and Differential Calculus of Several Variables
- PHIL 150: Basic Concepts in Mathematical Logic (PHIL 250)
- PHIL 151: First-Order Logic (PHIL 251)
- PHIL 154: Modal Logic (PHIL 254)

study complex processes or systems using theoretical models to predict their outcomes.

- CS 107: Computer Organization and Systems
- PHIL 150: Basic Concepts in Mathematical Logic (PHIL 250)
- PHIL 151: First-Order Logic (PHIL 251)
- PHIL 154: Modal Logic (PHIL 254)
- PHIL 166: Probability: Ten Great Ideas About Chance (PHIL 266, STATS 167, STATS 267)

use deductive reasoning correctly through the study of particular examples in an area of interest at the collegiate level.

- ECON 80: Economic Analysis I
- PHIL 150: Basic Concepts in Mathematical Logic (PHIL 250)
- PHIL 151: First-Order Logic (PHIL 251)
- PHIL 154: Modal Logic (PHIL 254)
- PHIL 166: Probability: Ten Great Ideas About Chance (PHIL 266, STATS 167, STATS 267)
Laine Bruzek
Skill Print

My skill set is broad and diverse, and it might seem incongruous at first. Instead, I regard my core skills as complementary colors on the spectrum that inspires my creative, academic, and professional work.

**Music + Creative Writing:**

Songwriting
I have collaborated with other musicians like I did for “Rarity,” which can be found on my portfolio website.

**Creative Writing**

Creative writing is one of my strongest skills and favorite art forms. I started writing at 6, was published at 12, and have been dreaming up stories since.

**Filmmaking**

Filmmaking is a new and compelling passion of mine. It’s a deliciously challenging exercise in manipulating technology to match a storyteller’s imagination.

**Music + Management:**

Performance Management
As the Performance Manager for Mixed Company A Cappella, I created choreography and comedy sketches, planned our annual shows, and found unexpected ways to apply the managerial skills learned in my Master’s program.

**Management Science**

I chose to pursue a Master’s in Management Science & Engineering at Stanford because I wanted to add rigorous depth to my passion for business strategy and entrepreneurship.

**Entrepreneurship**

The entrepreneurial mindset at Stanford is infectious, and I’ve been fortunate to learn it from some of Silicon Valley’s leading influencers. I love teaching this mindset to others, and I’m currently working on a way to share insights with high school students across the country.

**Experience Design**

I’m always looking for new ways to apply human-centered design to everything from consumer tech to experimental media to K-12 education.

**Management + Entrepreneurship:**

Mayfield Fellows Program
Each year, 12 outstanding students are selected to participate in a 6-month entrepreneurship intensive called the Mayfield Fellows Program. After a year as a Fellow in 2015, I was honored to become the Course Assistant for the following year.

**Design + Entrepreneurship:**

D. School
Human-centered design and entrepreneurship come together at the d school at Stanford, where I’ve spent 5 years learning to apply design thinking not only to product creation but also to business strategy and/or practical execution.

For more about me and to see my work, please visit my portfolio at lainebrzek.com
PERSONAL SKILL DEVELOPMENT

I believe that personal skill development occurs over the course of each person’s lifetime, but the time scan design’s relevance derives from its focus on the specific qualities outlined below.

PASSION
I have garnered passion for a diverse range of creative pursuits, from filmmaking to product design, as well as for creating social impact. These are to ignite new passions from serendipity and leverage those passions for direct action, implementation, and learning.

LEADERSHIP
I have practiced leadership in corporate and academic contexts, such as within student groups, project teams, and teaching. These are to lead a Design Project Team or host a large-scale event, with extreme deadlines or marketing constraints.

PRESENTATION
I feel comfortable stepping into public speaking positions, where I must convincingly, clearly, and visually articulate my ideas.

Currently Tackling
- Pitching and Presenting Project
- Plans to Potential Company
- Sponsors and Investors

Previous Experience
- Public Speaking
- Presentation
- Creativity
- Energy
- Organization
- Passion
- Leadership
- Time Management

http://www.katiekirsch.com/
A Broken Tool

The high school transcript aims to assess student progress and performance, but it is a broken instrument that no longer serves students, teachers or the world outside our school walls.
OPEN LOOP UNIVERSITY

We look back from 2100 at the era when Stanford brought an end to a society of alumni in favor of lifetime learning.
Avocados don’t all ripen after exactly 8 days, so why is everyone ready for college after 18 years?

Introducing Open Loop education. Your pace, your time, your life.

What Employers Say About Looping Students

“We actually created new career tracks to accommodate looping employees because we’ve found the benefit to be substantial.”

“We actively seek candidates that make lifelong learning a priority.”

“We value employees that have an insatiable curiosity.”
Student Experience Map
Student Onboarding Akin to "Chutes and Ladders"
Uncommon Persistence and College Navigation Skills Needed

Early Bird Applicant
- June 1st
  - Apply Online
  - Begin Early Application
  - Send and Submit FAFSA
  - Take Placement Exam Over Two Days
  - See an Advisor
  - Visit Financial Aid Weekly After Classification as International Student
- July 1st
  - Attend Orientation
  - Register for Classes
  - Follow Up on Financial Aid
  - Re-Register because of Commute
- August 1st
  - Start Classes

Last Minute Applicant
- September 1
  - Attend Orientation
  - Register for Classes
  - Follow Up on Financial Aid

Even the Early Bird Applicant Encounters Obstacles and Difficulties

Legend:
- 1 Try
- 10 Try
- Location
  - On-Campus
  - Off-Campus

Waits till peak times to see an advisor
- 1 Mon
- 30 Try

Students who are dropped
- 1 Mon
- 30 Try

Cannot Balance Classes and Work Schedule
- 1 Mon
- 30 Try

Money
- 1 Mon
- 30 Try

Learn More
EAB.com
4020139008
EAB
Community College Executive Forum
Stanford University Credential Mapping Project
Draft Framework

Stanford University Transcript
Stanford University Degree
Graduate Certificate / Undergraduate Certificate
Professional Certificate
Certificate of Achievement
Certificate of Completion
ID Verified
Anonymous/No Verification
Statement of Accomplishment/Participation

Carissa Little & Robert Prakash (2016)
Stanford Center for Professional Development
This present moment used to be the unimaginable future.

Stewart Brand
Adapted from Central Office of Design
Thank you!

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