



Structural Considerations for Innovation

CBHE Presentation

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The Best Education System at Crossroads

- When two giants are breathing down our necks, we cannot compete on the low end. We simply do not have the numbers.
- Our continued prosperity depends on moving majority to high skill, high value added workers.
- We are the best in producing the highest value workers. But they cannot be the majority.
- Are we good at the next level?

The Original Sin of Academics

We Teach Questioning as a Virtue

except

We loathe questioning what we do

We may have the best fuel--inertia



Context for Innovation: Systemic Disadvantages--Internal

Huge investment in infrastructure

- Forces certain way of doing business

We play in a sandbox we have designed for ourselves

- Limits flexibility of thought

Model based on the 'Pyramid' when a 'box' is needed

- Leaves a lot of collateral damage

Designed for 30%, Applicable to the rest of 70%?

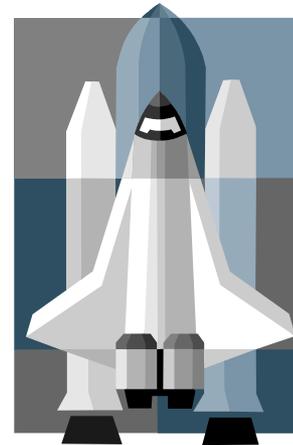
- Low success rates may be the result.....

Problem of Scaling

- Many successful pilots, few scaled....

Recipe for All Seasons

- The Pastoral Era
- 36-42 Hrs Gen ED
- 12-18 Hrs Major
- 8-12 Hrs Elective
- The Space Age



The Curriculum—A Paradigm of Stability

- Very little has changed over the last 200 years
- But we know
 - 70+% graduates work outside their major
 - Graduates are likely to change careers 5+ times
 - Employers focus on competencies/skill sets
- Yet our focus is still discipline based

Efficiency Gains in Higher Education Has Been Negligible

- Moore's Law certainly does not apply to higher education
- Cost of transmitting information and knowledge is falling 50% every 18 months
- Even Surgeons have found ways to become more productive---Door is open for efficient provider

Context for Innovation: Systemic Disadvantages--External

- Signs of Market Failure
 - You spend 16-20 years preparing and we will pick
 - Majority of the risk on the student
 - Risk avoidance—many high paying but not well known prospects may not compare well to low paying but well known prospects.
- **We have to change how we bring people into the workforce**

Context for Innovation: Systemic Disadvantages--External

- Quality of Information—Job Prospects
Students cannot prepare for what is not known
- Quality of Information—Core Needs
No commonly agreed standards or competencies or skill sets. Example--
'communication' skills

Largest Occupations

Occupation	2014 Jobs	Change in Jobs (2014-2019)
Registered Nurses	21,856	2,396
Office Clerks, General	20,991	585
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	17,889	1,129
Nursing Assistants	12,040	1,408
Bookkeeping, Accounting, and Auditing Clerks	11,914	686
Accountants and Auditors	11,172	883
Personal Care Aides	10,417	2,286
First-Line Supervisors of Office and Administrative Support Workers	9,349	554
Maintenance and Repair Workers, General	8,260	224
Business Operations Specialists, All Other	7,793	176
Teacher Assistants	7,446	553
Receptionists and Information Clerks	7,056	505
First-Line Supervisors of Food Preparation and Serving Workers	6,710	418
Computer User Support Specialists	5,622	464

Job Postings for Individuals Having Associate Degrees

Registered Nurse	2281	Network Engineer / Architect	55
Computer Support Specialist	313	Program Manager	55
Software Developer / Engineer	290	Computer Programmer	54
Sales Representative	267	IT Project Manager	54
Office / Administrative Assistant	250	Paralegal / Legal Assistant	54
Bookkeeper / Accounting Clerk	250	Computer Systems Engineer / Architect	51
Intensive / Critical Care Nurse	221	Marketing Coordinator / Assistant	51
Customer Service Representative	210	Human Resources / Labor Relations Specialist	48
Systems Analyst	186	Recruiter	48
Retail Supervisor	167	Banking Branch Manager	48
Retail Sales Associate	155	Financial Manager	47
Network / Systems Administrator	149	Respiratory Therapist	47
Medical Coder	128	Repair Worker / Service Technician	45
Stocking Clerk / Sales Floor Support	118	Business / Management Analyst	44
Nurse Case Manager	114	Software QA Engineer / Tester	43
Preschool / Childcare Teacher	113	Medical Laboratory Technologist	43
General / Electrical Engineering Technician	100	Data / Data Mining Analyst	43
Nursing Manager / Supervisor	81	Restaurant / Food Service Supervisor	42
Sales Manager	79	Maintenance / Service Supervisor	41
Database Administrator	79	Childcare / Preschool Director	41
Satellite / Broadband Technician	75	Graphic Designer / Desktop Publisher	40
Account Manager / Representative	66	Medical Laboratory Technician	40
Mechanical / Electrical Drafter	56	Radiology Technician	39
Business Intelligence Analyst	56		
Payroll Specialist	56		





Have We Learned from a Million Rejections?

- They all know about the benefits of a baccalaureate
- Yet, transfer rate is very low. Millions have knowingly rejected what has been offered
- We have to ask the questions.

Lessons from the Pony Express

Response to Telegraph--Buy faster horses

When that did not work--Hire better riders

A fundamental re-examination of the business was what was needed

CBHE must create the structures and environments which will set the stage for transformative innovation.