2020 EDUCAUSE HORIZON REPORT*

TEACHING AND LEARNING EDITION

*Purpose to help higher education institutions learn, plan and act for the future
*Opinions and essays that focus on trends technologies and practices

SOCIAL TRENDS

WELL-BEING AND MENTAL HEALTH

IMPACT

THEY OBSERVE AN UPWARD TREND IN INCREASING NUMBERS OF STUDENTS WHO REPORT EXPERIENCING ANXIETY, DEPRESSION, AND RELATED CONCERNS

EVIDENCE

THE USE OF THE META APP, IT'S AN ONLINE PLATFORM FOCUSED ON CONNECT STUDENTS WITH THERAPIST FOR VIDEO/PHONE THERAPY SESSIONS

EQUITY AND FAIR PRACTICES

IMPACT

THE TREND IS PROFESSIONAL DEVELOPMENT AMONG FACULTY, STAFF AND ADMINISTRATORS CAN INFLUENCE THE WAYS IN WHICH CURRICULUM IS STRUCTURED, PEDAGOGY IS DELIVERED (e.g culturally responsive) AND SERVICE AND SUPPORT ARE RENDERED TO STUDENTS AND THE COMMUNITY

EVIDENCE

LAST YEAR, HARVARD UNIVERSITY BECAME EMBROILED IN CONTROVERSY OVER ITS RACE-CONSCIOUS ADMISSIONS POLICIES.

DEMOGRAPHIC CHANGES

IMPACT

THE ONGOING SHIFTS IN THE DEMOGRAPHICS OF GLOBAL POPULATIONS IS INCREASING NUMBERS OF NONTRADITIONAL STUDENTS AND MAKING CHANGES IN THE CONCEPT OF THE "TYPICAL" STUDENT

EVIDENCE

US MILLENNIAL WOMEN WITH A BACHELOR'S DEGREE IS HIGHER THAT THAT OF MILLENNIAL MEN

TECHNOLOGICAL TRENDS

ARTIFICIAL INTELLIGENCE

IMPACT

- INCREASINGLY USED BY HUMAN INSTRUCTORS FOR PROVIDING FEEDBACK ON STUDENT WORK

- MAY ALSO HAVE APPLICATIONS FOR REFINING LANGUAGE TRANSLATION

- IMPROVING ACCESS FOR STUDENTS WITH VISUAL OR HEARING IMPAIRMENTS.

EVIDENCE
AMAZON HAS INTRODUCED THE ALEXA EDUCATION SKILLS API, AND SOME SCHOOLS ARE USING MICROSOFT TRANSLATOR TO IMPROVE LANGUAGE OPTIONS FOR BOTH STUDENTS AND PARENTS

NEXT-GEN DIGITAL LEARNING

IMPACT

- NEXT-GENERATION DIGITAL LEARNING ENVIRONMENT (NGDLE) IS CREATING A TRANSFORMATIONAL SHIFT IN HOW INSTITUTIONS ARCHITECT THEIR LEARNING ECOSYSTEMS FOR LEARNERS AND INSTRUCTORS

- THIS TREND ENABLES INSTITUTIONS TO OFFER A MORE FLEXIBLE LEARNING EXPERIENCE TO MORE STUDENTS, SYNCHRONOUSLY AND ASYNCHRONOUSLY

- THIS AGILITY CAN AFFORD LEARNERS AND INSTRUCTORS THE OPPORTUNITY TO "THINK OUTSIDE THE BOX"

EVIDENCE
USE OF THE IMS GLOBAL LTI (LEARNING TOOLS INTEROPERABLITY)
IS BECOMING WIDESPREAD

–PATRICK WANT TO INTERPRET?

ANALYTICS & PRIVACY

IMPACT

- THE TREND IS STUDENT PRIVACY WILL BECOME AN INCREASINGLY IMPORTANT CONSIDERATION

- CAREFUL DECISIONS AROUND PARTNERSHIPS AND DATA EXCHANGES WITH OTHER ORGANIZATIONS, VENDORS, AND GOVERNMENTS

EVIDENCE
THE EUROPEAN UNION IMPLEMENTED THE GENERAL DATA PROTECTION REGULATION

ECONOMIC TRENDS

- THE RISING COST OF TUITION, COMBINED WITH DECREASED FUNDING FROM PUBLIC AND OTHER SOURCES, WILL EXPAND THE US STUDENT DEBT CRISIS AND LEAD TO MULTIPLE LONG-TERM ECONOMIC EFFECTS

- INSTITUTIONS NEED TO DEMONSTRATE THEIR VALUE AND/OR ADJUST TO ECONOMIC REALITIES WITH NEW BUSINESS/FUNDING MODELS

EVIDENCE
THE US CONGRESS IS SEEKING TO PASS THE EMPLOYER PARTICIPATION IN REPAYMENT ACT, EXPANDING EMPLOYERS' ASSISTANCE WITH STUDENT DEBIT

- IN ORDER TO STAY RELEVANT AND SUSTAINABLE INSTITUTIONS WILL NEED TO ADJUST THEIR COURSES, CURRICULA, AND DEGREE PROGRAMS TO MEET LEARNERS' NEEDS, AS WELL AS THE DEMANDS OF NEW INDUSTRIES AND AN EVOLVING WORKFORCE

- DEMAND FOR LIFELONG LEARNING AND SKILLS RENEWAL WILL ALSO INCREASE

EVIDENCE
'SKILLS-WORLD ECONOMIC FORUM' PREDICTS THAT A LEAST 133 MILLION NEW JOBS GENERATED GLOBALLY BY 2022 AS A RESULT OF DIVISIONS BETWEEN LABOR OF HUMANS/MACHINES/ALGORITHMS

- MORE INSTITUTIONS WILL FOCUS ON ONLINE LEARNING AS A SUSTAINABLE EDUCATIONAL MODEL AS STUDENTS AND FACULTY BECOME LESS WILLING OR ABLE TO COMMUTE

EVIDENCE
BERKELEY IS SOMETIMES FORCED TO OPERATE ON LIMITED POWER DUE TO WIDESPREAD POWER OUTAGES. THIS EQUATES TO LOST INSTRUCTIONAL DAYS, AND THERE IS A PUSH (GLOBALLY) FOR SCHOOLS TO BECOME CARBON NEUTRAL BY 2030

HIGHER EDUCATION TRENDS

CHANGES IN STUDENT POPULATION

IMPACT

- THERE IS A DOWNWARD TREND IN FERTILITY RATES WORLDWIDE-50 PERCENT SINCE 1960, THIS TREND IS LEADING TO FEWER STUDENTS AND PRESENTING FISCAL CHALLENGES

EVIDENCE

IT HAS BEEN PREDICTED THAT US COLLEGE ENROLLMENTS WILL DROP BY AS MUCH AS 10 PERCENT BY THE LATE 2020S. MINORITY STUDENTS TODAY ACCOUNT FOR ROUGHLY HALF OF ALL HIGH SCHOOL GRADUATES IN THE UNITED STATES

ALTERNATIVE PATHWAYS TO EDUCATION

IMPACT

- THIS TREND IS CAUSING INSTITUTIONS TO RETHINK DEGREE PATHWAYS, ALTERNATIVES WOULD INCLUDE NANO- AND MICRO-DEGREES, EXPANDED ONLINE OPTIONS AND PORTABLE AND STANDARDS-BASED CREDENTIALS

- INCREASED COLLABORATION WITH OTHER INSTITUTIONS

EVIDENCE

SOUTHERN NEW HAMPSHIRE UNIVERSITY NOW AWARDS COLLEGE CREDIT FOR SALESFORCE SKILLS

ONLINE EDUCATION

IMPACT

- USING ONLINE EDUCATIONS AS A SCALABLE MEANS TO PROVIDE COURSES TO AN INCREASINGLY NONTRADITIONAL STUDENT POPULATION.

- INSTITUTIONS WILL INCREASINGLY ENGAGE WITH ONLINE PROGRAM MANAGERS (OPMS) TO JUMPSTART ONLINE PROGRAMS

EVIDENCE

CALIFORNIA'S ONLINE CC INITIATIVE GIVES STUDENTS ACCESS TO COURSES ACROSS ITS CC SYSTEM

Political Trends

Decrease in Higher Education Funding

PUBLIC FUNDING FOR HIGHER EDUCATION CONTINUES TO DECREASE. TEACHING, LEANING, AND RESEARCH PRACTICES WILL BE INCREASINGLY DRIVEN BY OPPORTUNITIES TO SECURE FUNDING

EVIDENCE
THE UNIVERSITY OF ALASKA BUDGET WAS CUT BY 41% IN 2019

Political Polarization

IN SOME INSTANCES, TENSIONS BETWEEN POLITICAL WORLDVIEWS HAVE BEEN LEADING TO INCREASINGLY HEATED DEBATES ON CAMPUSES

EVIDENCE

IN 2017, GEORGETOWN UNIVERSITY LAUNCHED ITS FREE SPEECH TRACKER TO MONITOR THREATS TO POLITICAL, SOCIAL AND INTELLECTUAL EXPRESSION.

Value of Higher Education

A MAJORITY OF ADULTS IN THE UNITEDS STATES BELIEVE THE HIGHER EDUCATION INDUSTRY IS HEADED IN THE WRONG DIRECTION

EVIDENCE

IN THE 2018-19 ACADEMIC YEAR ENROLLMENTS DECLINED FOR THE EIGHTH CONSECUTIVE YEAR, BY 1.7% OVER THE PREVIOUS SPRING

THREE KEYS

ENROLLMENT GROWTH HAS BEEN SEEN MAINLY IN INSTITUTIONS ABLE TO PROVIDE ONLINE COURSES THAT ADDRESS THE SO-CALLED "THREE KEYS"

AFFORDABLE COST

SCHEDULE CONVENIENCE

EXPEDITED CREDIT TRANSFER

THE GOOD AND THE BAD

ADAPTIVE LEARNING TECHNOLOGIES

- ADAPTIVE TECHNOLOGY –DIGITAL PLATFORMS YOU CAN BUY OR BUILD (COURSEWARE)

- PERSONALIZED LEARNING TEACHING/LEARNING PRACTICES THAT SEEK TO FINE TUNE THE EXPERIENCE TO THE INDIVIDUAL LEARNER

- ADAPTIVE TECHNOLOGIES EVOLVE THE ROLE OF THE INSTRUCTOR, AWAY FROM CONTENT DELIVERY IN THE FORM OF LECTURES DURING CLASS AND TOWARD THE ROLES OF LEADER AND COACH DURING ACTIVE LEARNING EXERCISES.

AI MACHINE LEARNING

- AI-BASED CHATBOTS - EXTENDS OFF-HOURS STUDENT SUPPORT, RECRUITING AND RESEARCH SERVICES (ALEXA LIKE SKILL)

- A GENERALIZED VERSION – CAN BE USED TO SUPPORT ALL MANNER OF STUDENT LIFE, INCLUDING LIBRARY, RES LIFE QUESTIONS, REGISTRATION AND CLASS QUESTIONS

- PREDICTIVE ALGORITHM- ASSISTS SCHOOLS IN IDENTIFYING STUDENTS WHO MIGHT PRESENT WITH HIGHER-THAN-AVERAGE ACADEMIC RISKS, ALLOWING INTERVENTION STRATEGIES TO BE DEVELOPED IN ADVANCE

ANALYTICS FOR STUDENT SUCCESS

- ANALYTICS AS A TOOL FOR EARLY ALERTS AND PROACTIVE OUTREACH IS BECOMING ESSENTIAL FOR ADVISING STAFF'S SUCCESS

- ENABLES STUDENTS TO ACCESS AND TRACK THEIR INDIVIDUAL DATA THROUGH INSIGHTFUL AND EASY-TO-UNDERSTAND VISUALIZATIONS PROVIDES A MODEL FOR GIVING STUDENTS GREATER AGENCY IN THEIR OWN SUCCESS.

THE GOOD AND THE BAD

UX DESIGN AND LD'S

UX = USER EXPERIENCE
LD = LEARNING DESIGNER

- LEARNING DESIGN INITIATIVES ARE SUPPORTING BOUNDARY-SPANNING PARTNERSHIPS AND BRINGING TOGETHER A COMBINATION OF LDS, UX DESIGNERS, LIBRARIANS, STUDENT ACCESSIBILITY EXPERTS, FACULTY DEVELOPERS, AND LEARNING SCIENTISTS

- IT'S A DYNAMIC FIELD THAT HAS SIGNIFICANT IMPACT ON LEARNING AND THE HOLISTIC STUDENT EXPERIENCE, WHETHER ONLINE OR ON CAMPUS

OPEN EDUCATIONAL RESOURCES OER

- AFFORDABILITY, ACCESS, AND DIGITAL EQUITY. REDUCING OR ELIMINATING RESOURCE COSTS CAN HAVE A PROFOUND IMPACT ON STUDENT RECRUITMENT AND RETENTION.

- SOME INSTITUTIONS MARKET OER AS A VALUE-ADD FOR ATTENDING THEIR CAMPUS. OER MAY ALSO PROVIDE FACULTY MORE AGENCY IN WHAT LEARNING MATERIALS TO ADOPT AND USE

XR, AR, VR, MR, HAPTIC TECHNOLOGIES

- TWO MOST COMMON TECHNOLOGIES
AR = AUGMENTED REALITY
VR = VIRTUAL REALITY
AR OVERLAYS PHYSICAL OBJECTS AND PLACES WITH VIRTUAL CONTENT, VR IS TYPICALLY A MORE IMMERSIVE EXPERIENCE

- XR = EXTENDED REALITY
CAN BE EFFECTIVELY DEPLOYED TO SUPPORT SKILLS-BASED AND COMPETENCY PEDAGOGIES; IT CAN EXPAND THE RANGE OF HANDS-ON LEARNING EXPERIENCE; AND IT CAN "ENABLE HIGH-TOUCH, HIGH-COST LEARNING EXPERIENCES TO BE SCALED UP"

SWOT

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
• OER INITIATIVE STARTED AT YC • YC IS BEGINNING TO LOOK AT USER DATA TO ENHANCE STUDENT SUCCESS • SUPPORT FROM THE TELS DEPARTMENT • INSTRUCTORS/DEPARTMENTS ALREADY IMPLEMENTING ADAPTIVE TECHNOLOGIES • UTILIZING QUALITY MATTER TO AS A FRAMEWORK TO ASSESS THE USER EXPERIENCE	• COST AND THE EMBRYONIC STATE OF THE TECHNOLOGY • INSTRUCTORS SERVING AS THE DESIGNERS OF THE USER EXPERIENCE • BALANCE BETWEEN NEW TECHNOLOGIES, PRIVACY, ETHICS, AND ACCESS TO STUDENT DATA • STUDENT SUCCESS IN TECHNOLOGY BASED LEARNING • TECHNOLOGY AND DISTANCE LEARNING LACKS THE PERSONAL CONNECTIONS (STUDENT/SCHOOL) (STUDENT/CLASS MATERIAL) (SCHOOL/COMMUNITY)	• USING TECHNOLOGY TO CREATE EARLY ALERTS FOR STRUGGLING STUDENTS • EDUCATIONAL ANALYTICS CAN BE USED FOR RECRUITMENT AND ASSESSMENT • USING TECHNOLOGY TO CREATE EFFICIENCY IN EDUCATIONAL PATHWAYS • TECHNOLOGY CAN REACH REMOTE LEARNING OUTSIDE THE COUNTY	• COMPETITION ACCESSING YOUR STUDENT OUR STUDENT POPULATION • NEW TRAINING TECHNOLOGIES WHICH REDUCE THE NEED OF A FORMAL HIGHER EDUCATION • ETHICAL CONSIDERATIONS OF LABEL STUDENTS AS BEING "AT RISK" • "OER" IS OFTEN CONFLATED WITH "E-TEXTBOOKS" AND SUBSCRIPTION DATABASES • LOSS OF EDUCATIONAL COMMUNITY THROUGH ONLINE EDUCATION