

# The Arboricultural Association's 50<sup>th</sup> National Amenity Conference

## Planning — for the — Future

4–7 September  
2016





# The Changing Face of Arboricultural Education: *A Global Perspective*



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# An Introduction

- Graduate Certificate in Urban Forestry at OSU
- Online courses in Arboriculture, Urban Forestry, Green Infrastructure, and Urban Forestry Leadership
- ISA Board of Directors
- UK ancestry – Wantage and Sudbury







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**Future**





# Presentation Overview

- Arboricultural education is an ever-changing endeavor
- Change is being realized primarily in three contexts:
  - Content
  - Audiences
  - Delivery methods
- Educational programs must adapt to keep up



# Change is constant

- Interviews with educators
- Changes evident in:
  - Science
  - Technology
  - Communications
  - Generations







CLOVEN  
HISTORY

hair salon

S...  
Tribal &...



# Changing Content

- The science of Arboriculture continues to evolve
- Arborists are integrating with other professionals more than ever before
  - Ecosystem Services
  - Green Infrastructure
  - Collaboration





# Job-task analysis based content changes – ISA Certification Exam

DOMAIN	1991	2001	2011	NEW DOMAIN NAME
Nutrition and Fertilization	7.5%	5.5%		Combined into Soil Management
Installation and Establishment	8.5%	9.0%	9.0%	Installation & Establishment
Identification and Selection	5.00%	4.50%	9.0%	Identification and Selection
Tree Biology	13.5%	13.0%	12.0%	Tree Biology
Tree, Soil, Water Relations	9.0%	6.5%	9.0%	Soil Management
Safe Work Practices	11.0%	9.5%	9.0%	Safe Work Practices
Pruning	8.0%	11.0%	12.0%	Pruning
Diagnosis & Treatment	14.5%	12.0%	13.0%	Diagnosis & Treatment
Cabling, Bracing, and L.P.	16.5%	11.0%		Combined into T.P. & T.R.A.
Trees, People, & Ecology	6.5%	3.0%	8.0%	Urban Forestry
Construction Preservation*		7.0%	9.0%	Tree Protection
Tree Risk Assessment**		<u>7.5%</u>	<u>10.0%</u>	Tree Risk Management
	100%	100%	100%	



# Changing Audiences

- Students are changing
  - Millennial generation
  - Digital natives
  - Second or third career changers
- Professionals are changing
  - Allied professions
  - Who impacts your trees?





# Changing Audiences

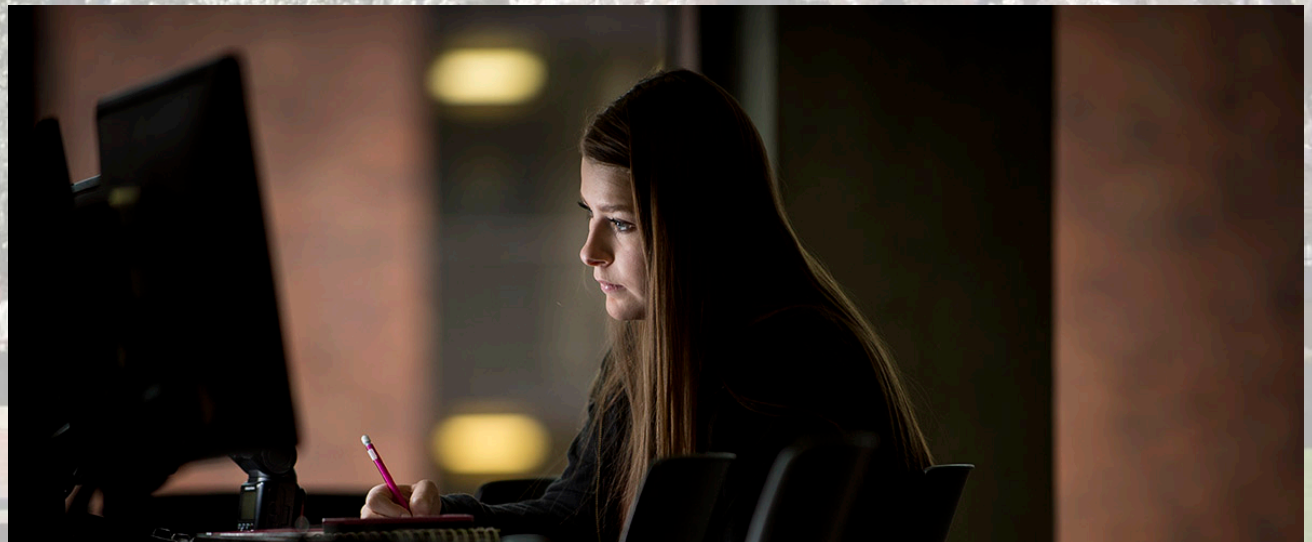
- Studies show that there are a variety of learning styles and learner types
- One-size-fits all really fits no one





# Changing Delivery Systems

- More students are taking online courses every year
- 74% of UK mobile device owners reported using it for online learning
- Hybrid courses are also gaining in popularity





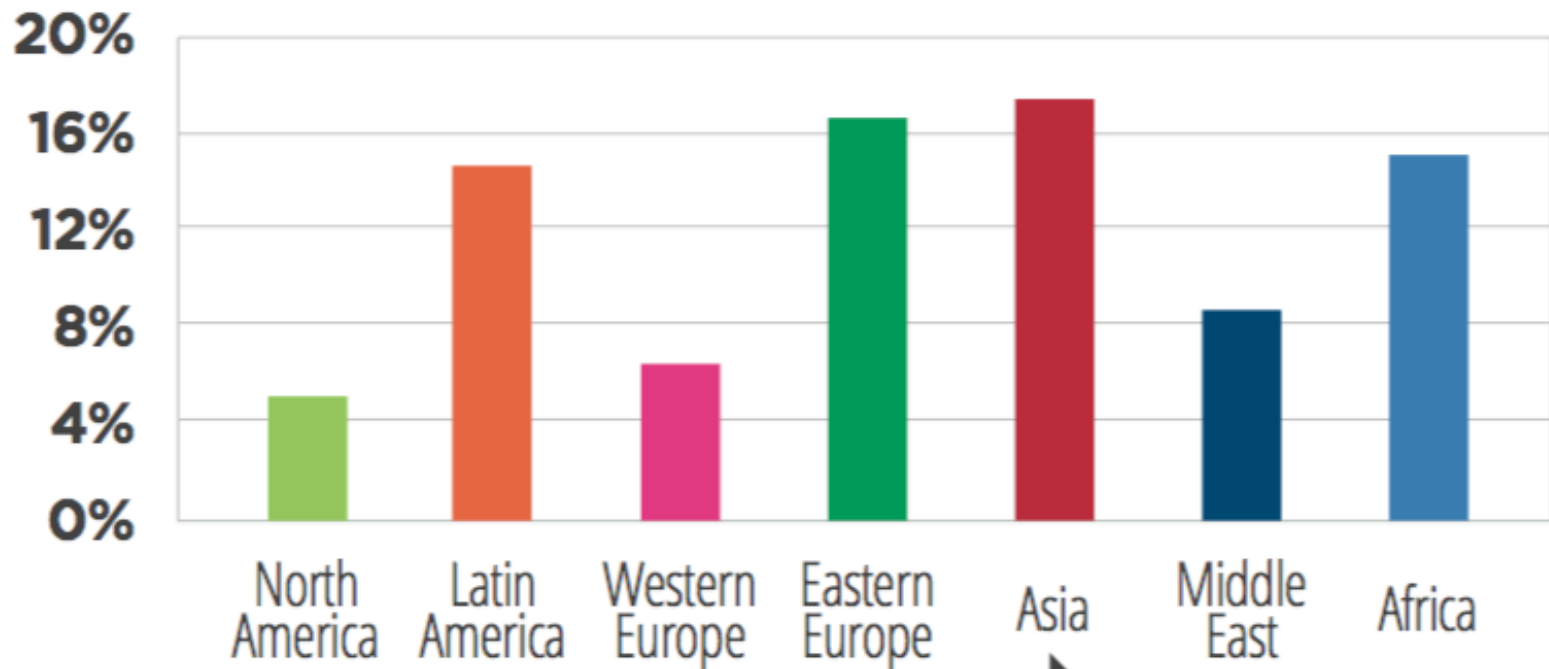
# Online or E-learning

- In the US, 5.8 million students took a least one online course last fall
- OSU has 1,000 online courses in 90 different subjects, 20 bachelors programs and 23 graduate level programs
- 74% of UK mobile device owners reported using it for online learning
- ISA now has an online learning center for CEUs in addition to place-based courses



# Worldwide Growth of E-Learning

## Growth by region



**DRIVEN BY  
RUSSIA**

**DRIVEN BY INDIA,  
CHINA, AUSTRALIA**



# 2015 Fastest Growing E-learning markets

- India: 55%
- China: 52%
- Malaysia: 41%
- Romania: 38%
- Poland: 28%
- Czech Republic: 27%
- Brazil: 26%
- Indonesia: 25%
- Colombia: 20%
- Ukraine: 20%





# What does this all mean?

- The “sage on the stage” is being joined by the “guide on the side”
- We must adapt our educational programs to changing learners, changing learner styles, and changing learner needs





# There is always a “but....”

- Changes in education often involve “adding to” rather than replacing
- High tech will never replace high touch





# Take home messages

- Arboricultural education (and urban forestry for that matter) is becoming:
  - More interdisciplinary
  - Full of more diverse learners
  - Characterized by more online learning







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