



CIO Leadership Academy
Applied Learning Project

Advancing Dental
Education through
Artificial Intelligence
and Interdisciplinary
Innovation

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University at Buffalo

School of Dental Medicine



Phase 1

Goals

- ✘ Train residents and faculty on available technology
- ✘ Provide exposure to new technologies
- ✘ Develop advanced technology in-house



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- ❖ Train residents and faculty on available technology
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Resources

- ❖ \$10K funding (AI Seed Grant - UB)
- ❖ Industry partnerships

Phase 1 — Teams



Train residents and faculty on available technology

- Periodontics residents
- Periodontics faculty
- Company representatives
- Departments leadership
 - Periodontics
 - Prosthodontics
 - Oral Maxillofacial Surgery



Provide exposure to new technologies

- Industry partners
 - Zeiss
 - Yomi/ Nvidia
 - Straumann
 - Techsuture
 - Supremo
 - Salvin
 - Overjet
- Guest Speakers
- External trainers

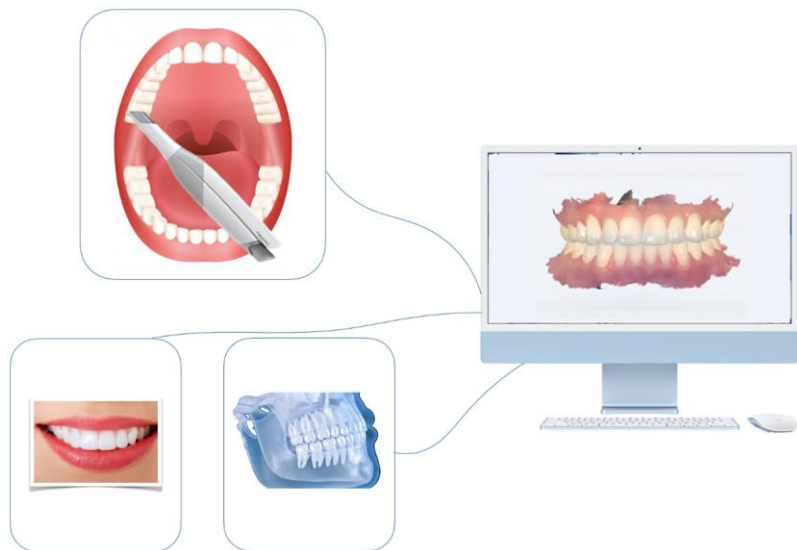


Develop advanced technology in-house

- Institute of Artificial Intelligence and Data Science
 - Engineers
 - Data Scientists
- Digital library/ Virtual reality support specialists
- Faculty across all departments

University at Buffalo: IT and Marketing teams

Key Metrics



3shape

BlueSkyBio

AUTODESK
MESHMIXER

coDiagnostiX™

10 residents

360 appointments / month

High-tech clinical care

*Create tracking codes for technology-based treatments to measure clinical impact

Phase 2

10 residents

360 appointments / month

High-tech clinical care

4 supervising faculty

1 intraoral scanner

1 notebook

3 computer

1 3D printer

240 dental students

8,640 appointments / month

High-tech clinical care

trained faculty?

intraoral scanner ?

notebook ?

computer ?

3D printer?

IT support?

Phase 2

Goals



Expansion

Resources



\$1M – to the School of Dental Medicine

Challenge



Long-term sustainability planning

Digital Dentistry Taskforce



Team

Periodontics

Prosthodontics

Oral biology



CIO Leadership Academy

IMPACT

- ✦ Gained confidence in leadership, delegation, and team empowerment
- ✦ Recognized strategic problem-solving as a core leadership strength

Questions?

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