

Health Information AND Technology

Jiajie Zhang, PhD

Dean & Professor

Glassell Family Foundation Distinguished Chair

March 8, 2018
2018 HIMSS China Forum

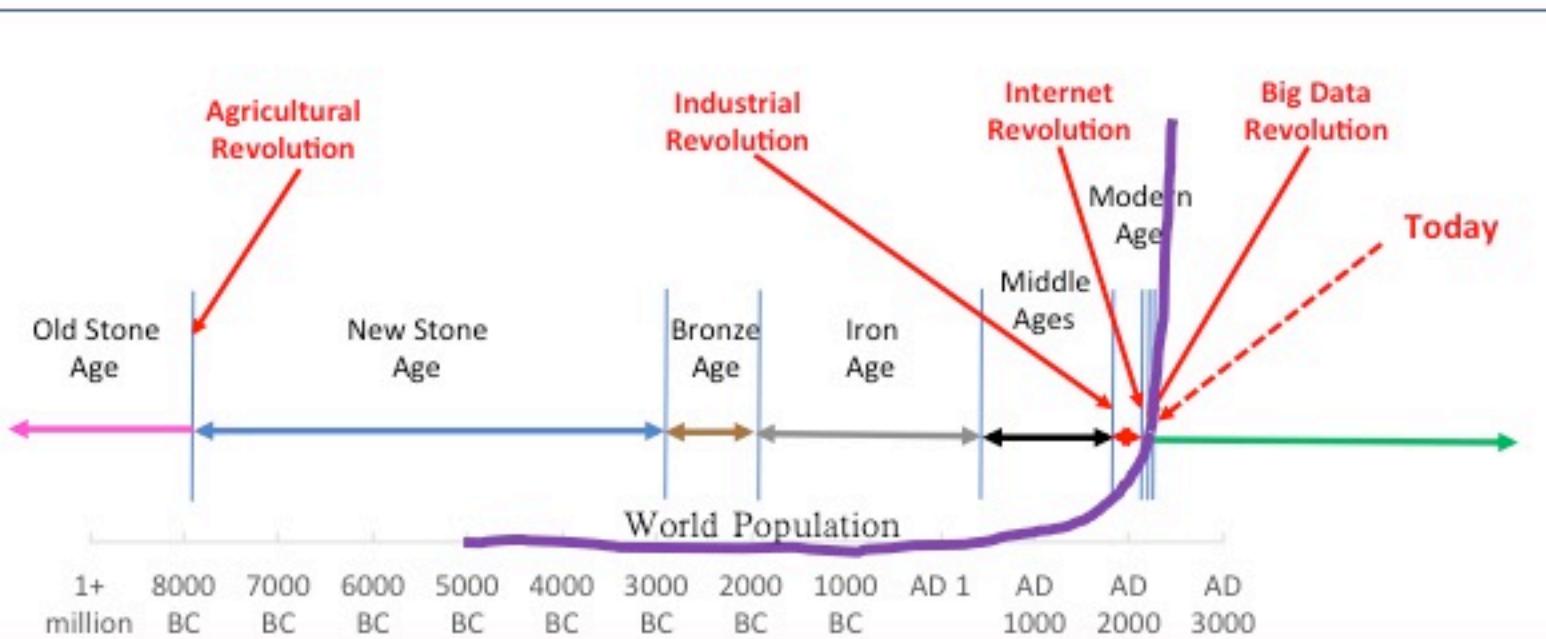
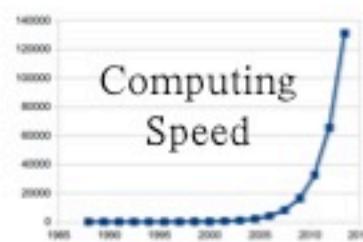
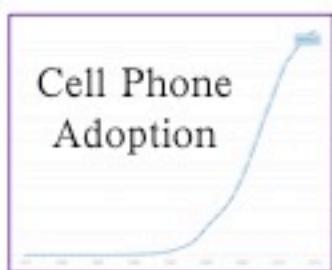
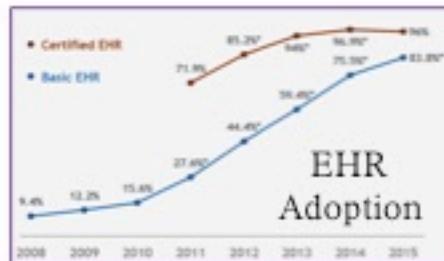


UTHealth™

The University of Texas
Health Science Center at Houston

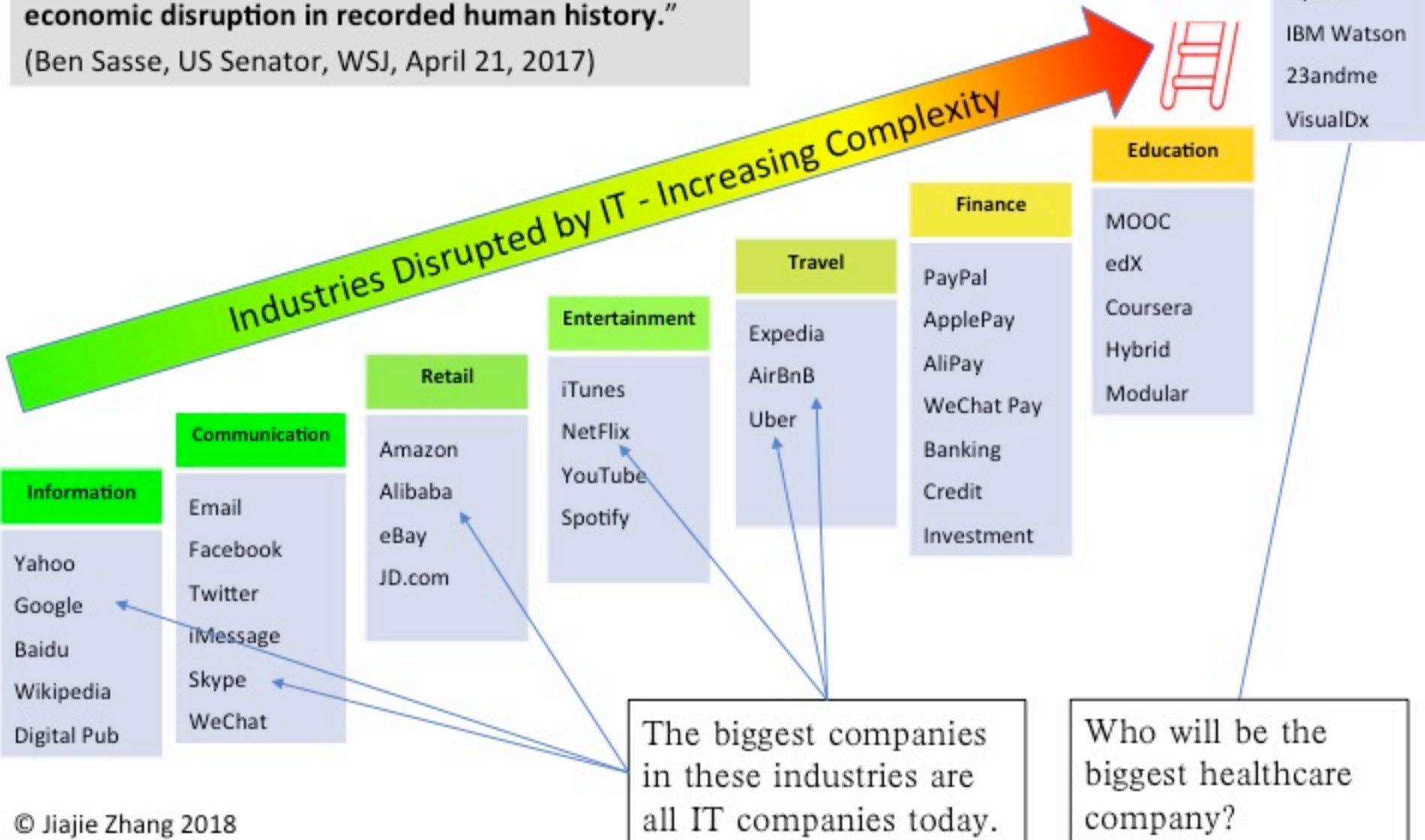
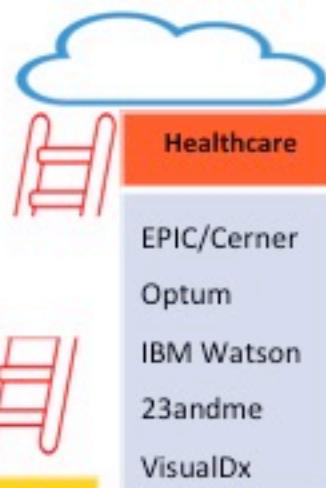
School of Biomedical
Informatics

The Age of Acceleration



The Age of Disruption

"The past 20 or 30 years, and the next 20 or 30 years—really is historically unique. It is arguably the **largest economic disruption in recorded human history.**"
(Ben Sasse, US Senator, WSJ, April 21, 2017)

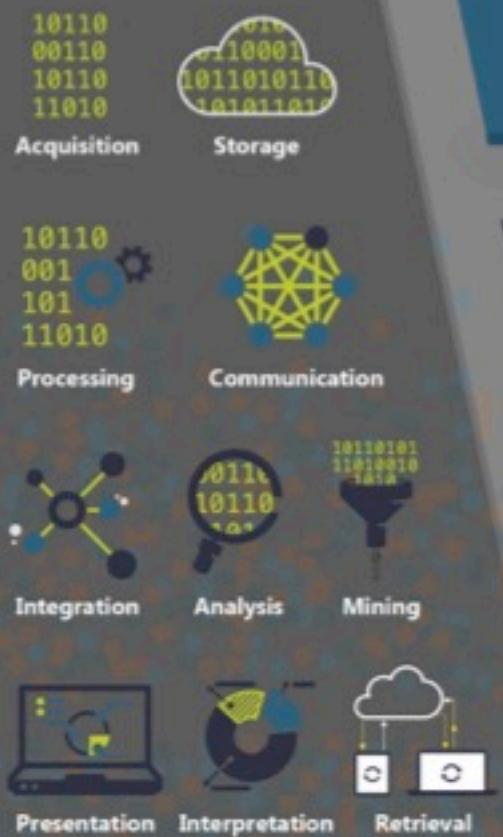


HIMSS New Vision from 2018

- From
Health Information Technology
- To
Health Information **AND** Technology

PROCESSES

ENTITIES



DATA

UNINTERPRETED

Meaningless Symbols

INFORMATION

DESCRIPTIVE

Interpreted Data

KNOWLEDGE

PREDICTIVE

Validated Information

INTELLIGENCE

PRESCRIPTIVE

Actionable Knowledge

DOMAINS

Biomedical Discovery

Healthcare Delivery

Disease Prevention



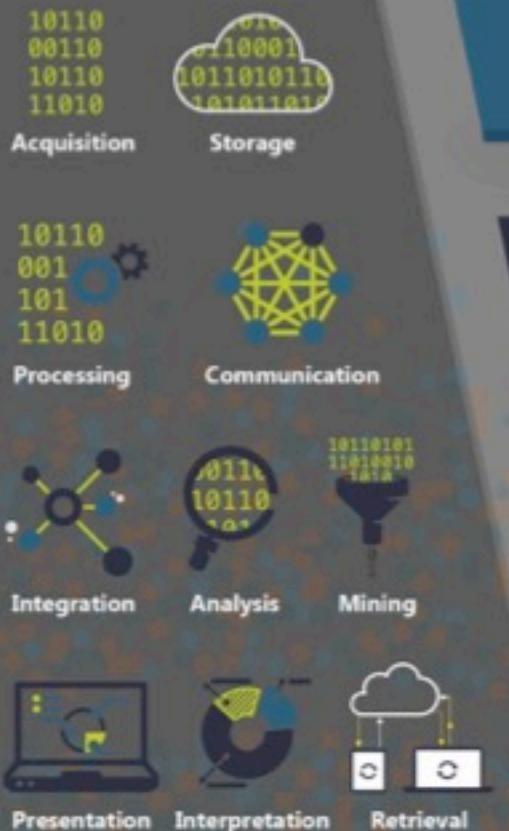
Biomedical
Informatics

Health Data
Science

Medical
AI

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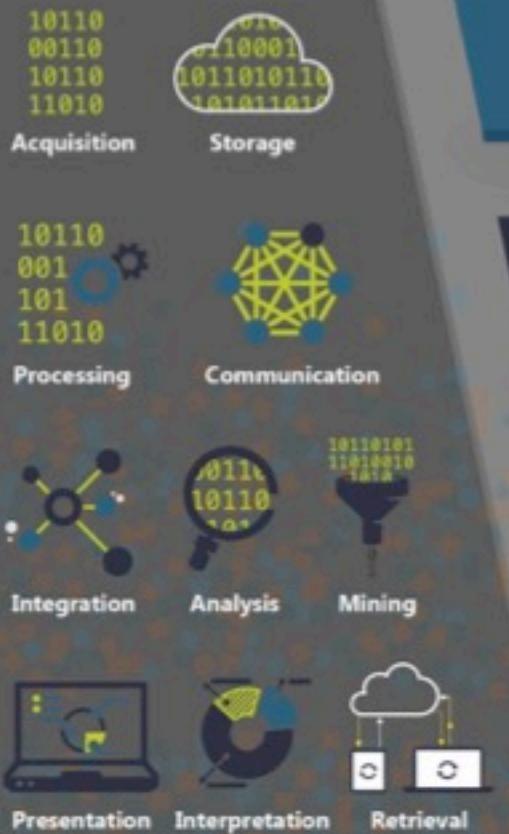
Problems
in Real World

GAP

Solutions
For Real World

PROCESSES

ENTITIES



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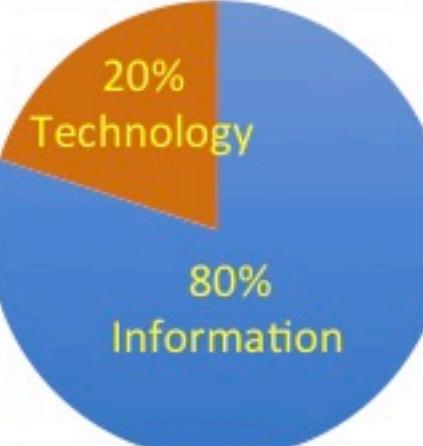
Biomedical
Discovery

Healthcare
Delivery

Disease
Prevention



Problems
in Real World



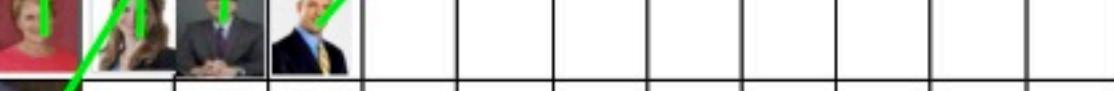
Solutions
For Real World

Biomedical Informatics - Highly Interdisciplinary Expertise

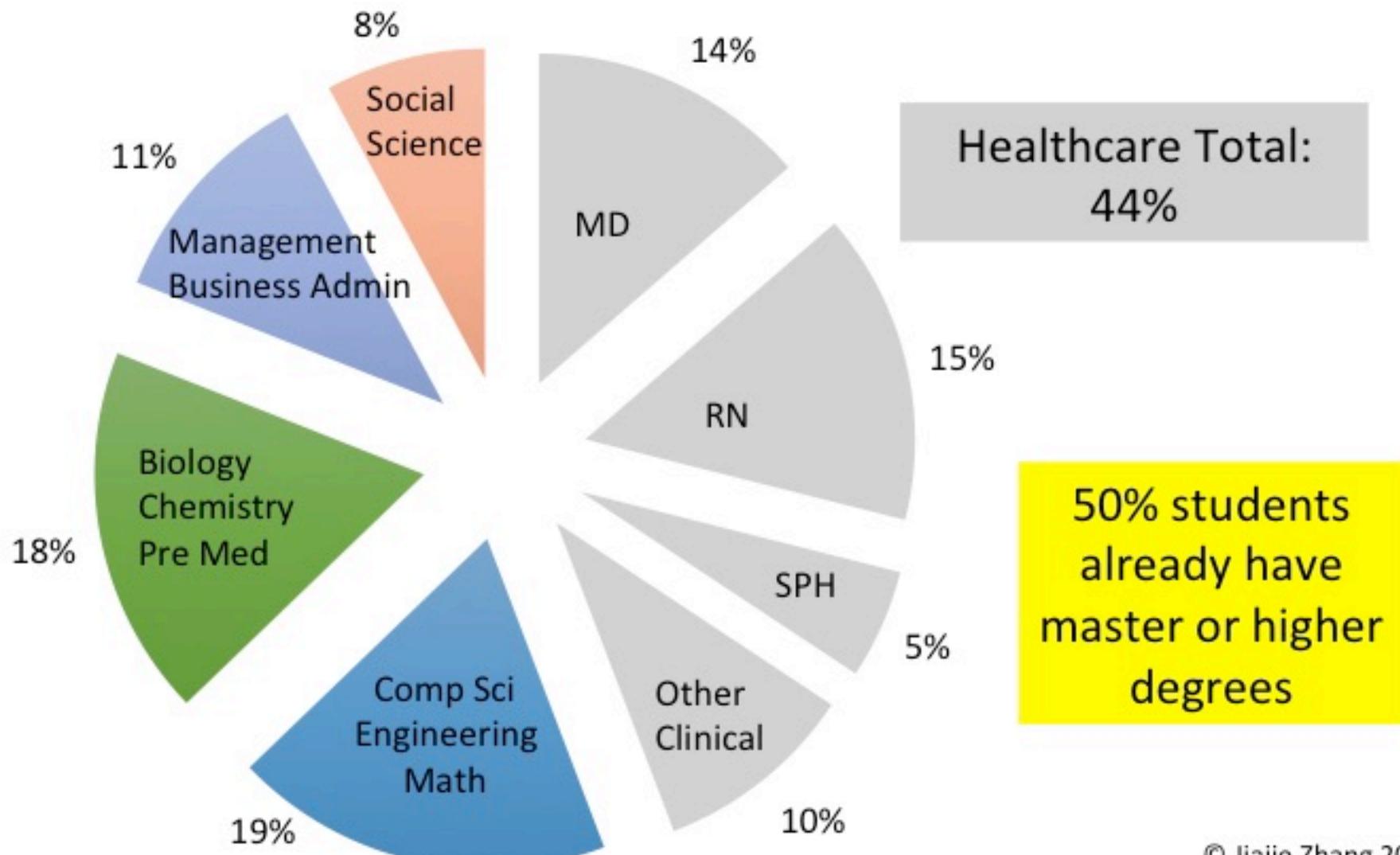
Example from UTHealth School of Biomedical Informatics Faculty Profiles

Disciplines														
Biomedical Informatics														
Bioinformatics, Comp. Biology, BME, Bio Eng														
Comp Sci, EE, Cog Sci														
Math & Statistics														
Biology														
Medicine (MD)														
Nursing (MSN, RN)														
Public Health, Health Service														
Social & Behavioral Science														
MBA, Health Management														
Law (JD)														

50% Faculty have advanced degrees (doctoral and master) in 2 or more different disciplines

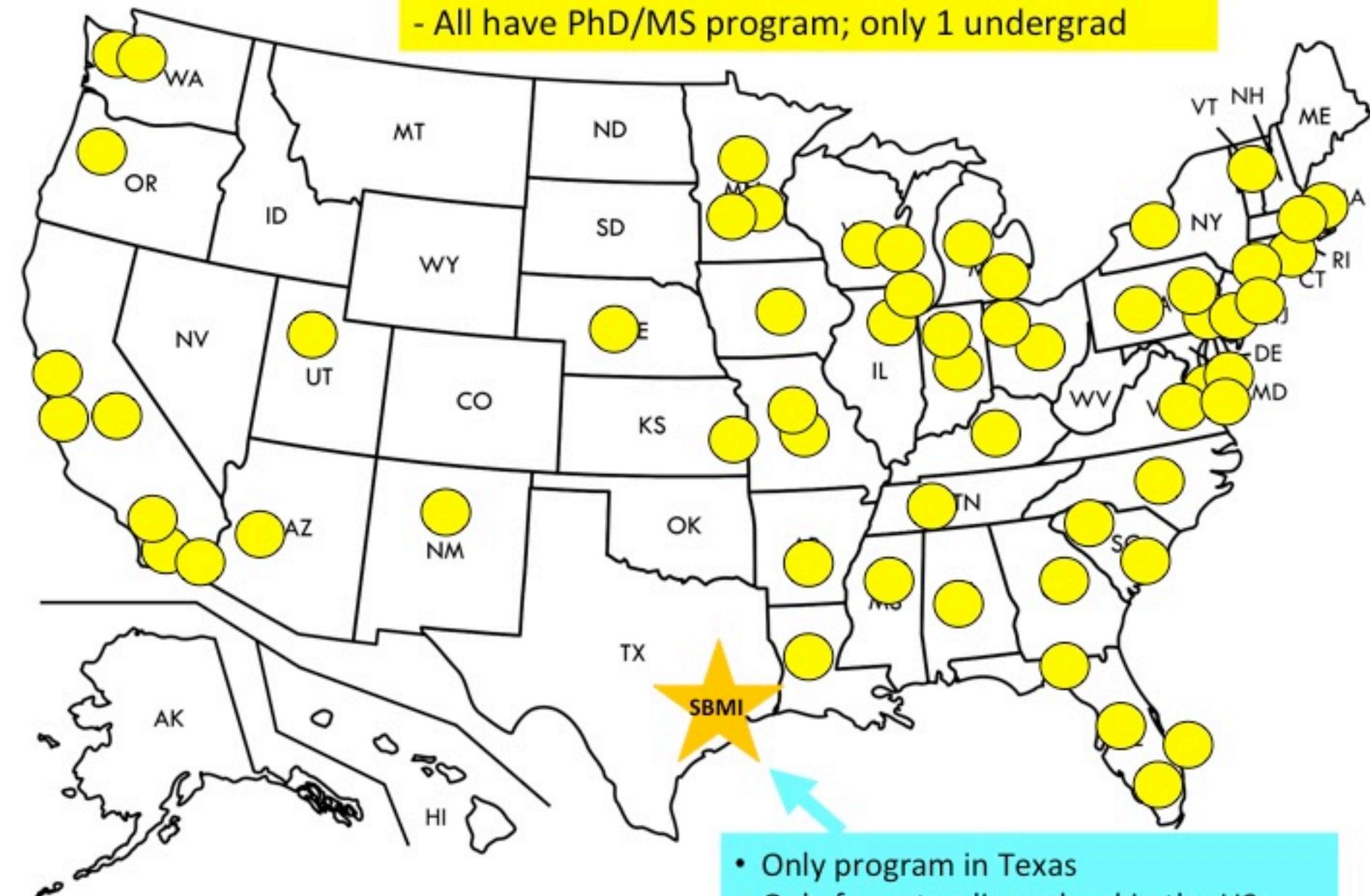
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Bioinformatics, Comp. Biology, BME, Bio Eng															
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Medicine (MD)															
Nursing (MSN, RN)															
Public Health, Health Service															
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MBA, Health Management															
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Background of UTHealth SBMI Students (Fall 2015)

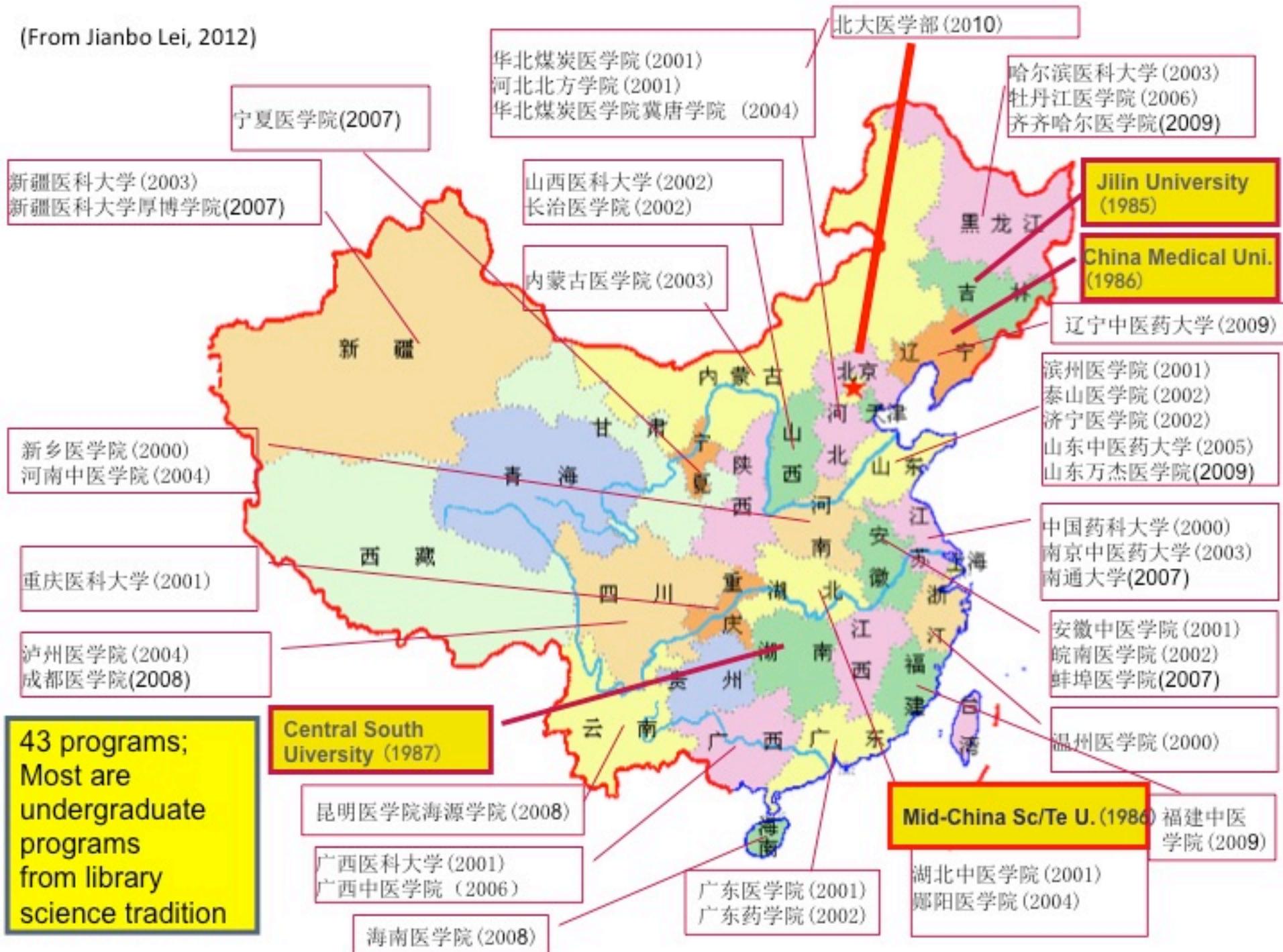


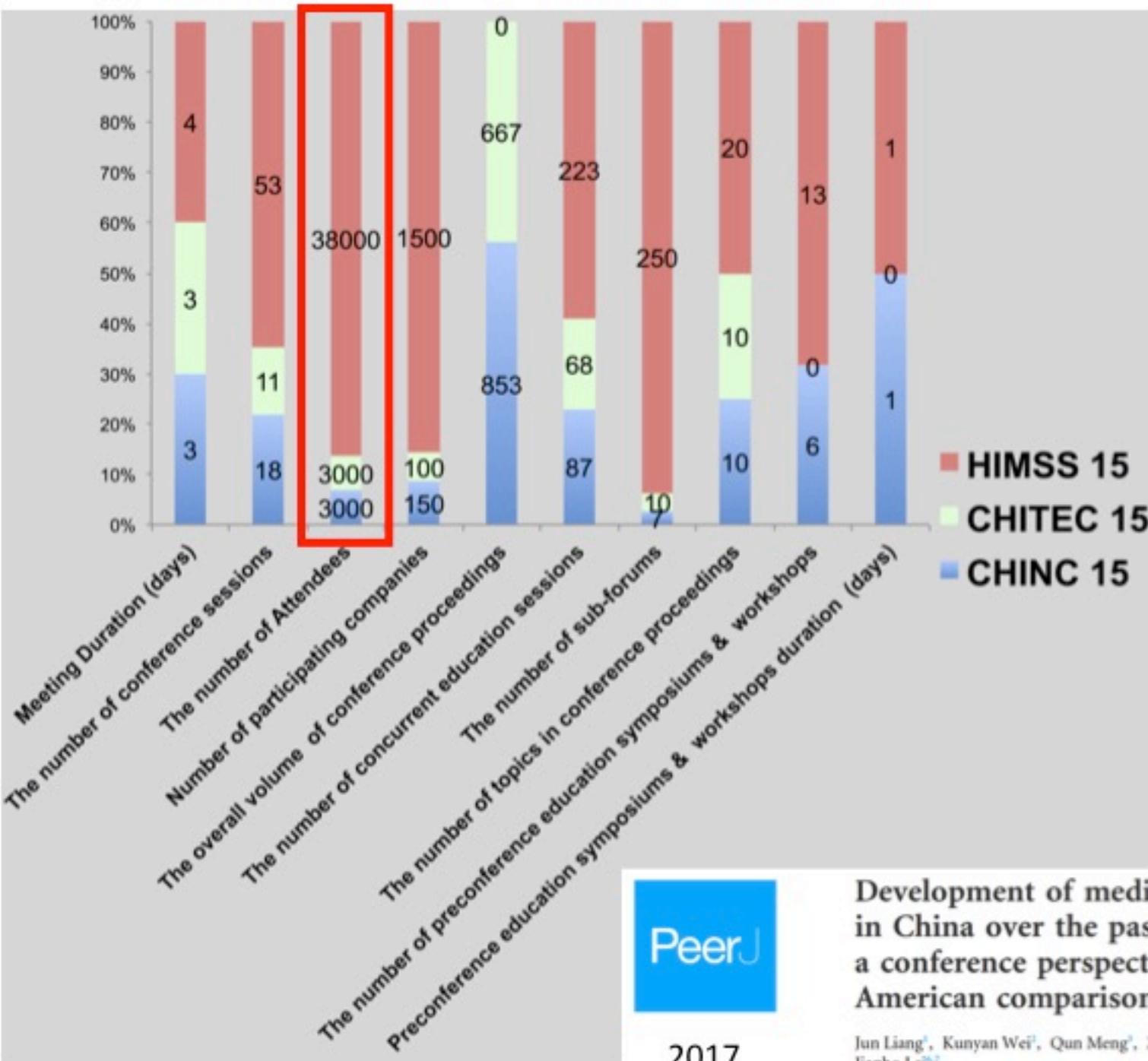
71 Biomedical Informatics Programs in US

- All have PhD/MS program; only 1 undergrad



- Only program in Texas
- Only free-standing school in the US
- The largest in the nation

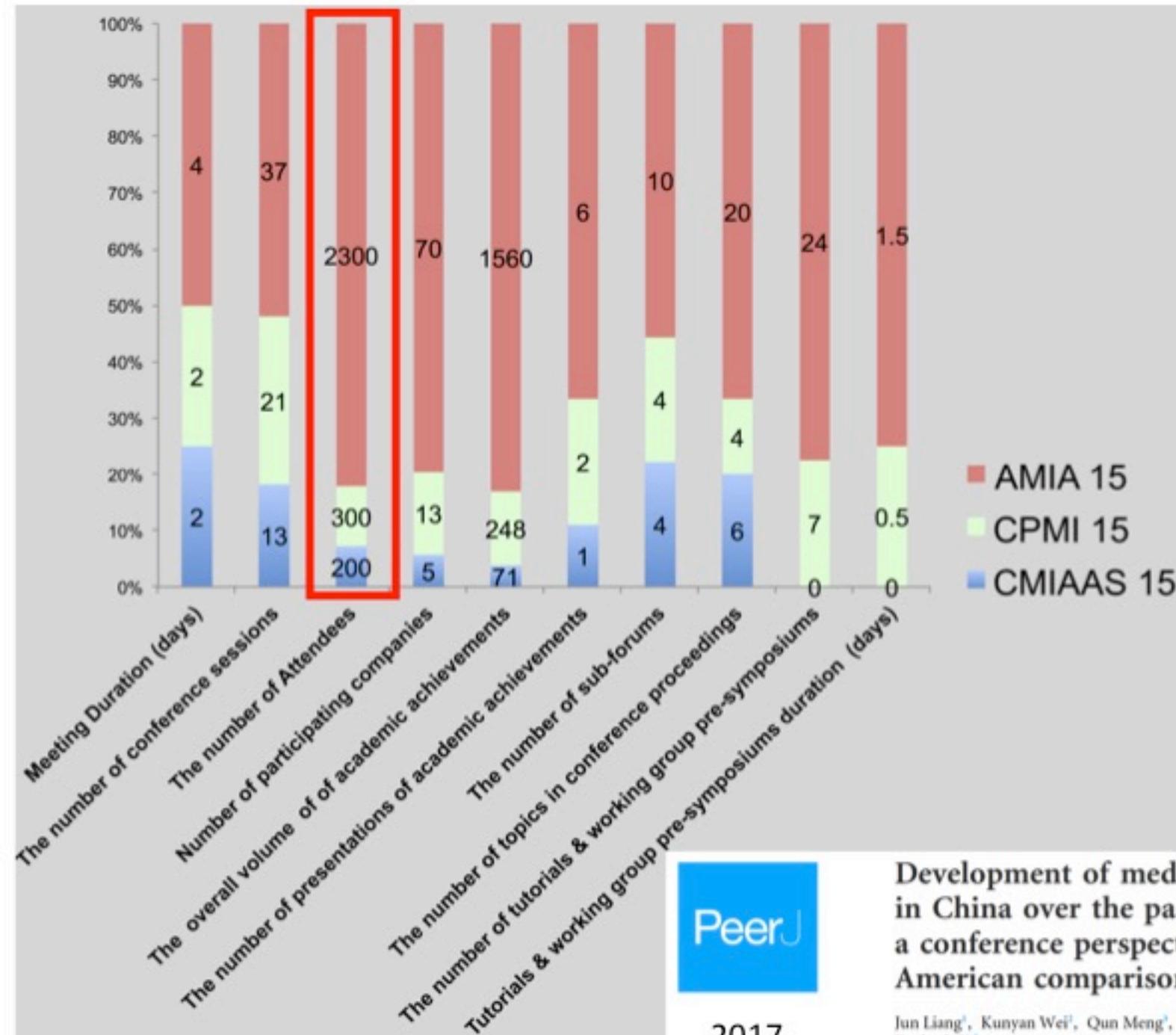




2017

Development of medical informatics
in China over the past 30 years from
a conference perspective and a Sino-
American comparison

Jun Liang¹, Kunyan Wei², Qun Meng¹, Zhenying Chen¹, Jiajie Zhang¹ and
Jianbo Lei^{3,4,5}



2017

Development of medical informatics
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Health Information AND Technology

Technology 20%

Information 80%

Thank You

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