## **250 Community** changemaker

Michael M. Crow Arizona State University January 29, 2014





# Arizona Population: 1870-2013



## Arizona Population: 1870-2013



## Arizona Population: 1860-2020

8,000,000	
7,000,000	
6,000,000	2013
5,000,000	
4,000,000	
3,000,000	
2,000,000	
1,000,000	
-	

1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020

## State Per Capita Personal Income: 1970-2012



## **State Per Capita Personal Income: 1970-2012**



## **Arizona Energy Consumption**



## **Arizona Solar Energy Production**



## Future is Not Yet Realized

# People Demand Further Change -Arizona We Want Report

## **Arizona We Want**

#### Education

Individualized education programs and increased graduation requirements Healthcare

Public programs available to low-income residents and children Quality Jobs

Job training programs for unemployed adults and lowering business taxes Infrastructure

State-wide water conservation plan and preservation of open space Energy Independence

Investing in renewable energy generating and energy efficiency incentives

How does change occur?

## Individuals

## Institutions

# Technologies

## Mechanisms of Change: Individuals



#### Sandra Day O'Connor

# **Student Level Changemaking**

	direct service	entrepreneurship
direct	Community Service Service Learning AmeriCorps	Innovation Challenge Edson Student Entrepreneur Initiative
indirect	awareness Courses 10,000 Solutions	advocacy Valley of the Sun United Way Student clubs

# **Student Level Changemaking**



## **ASU Freshman Enrollment by Annual Family Income**



Annual Family Income in Thousands

Only includes first-time, full-time freshman

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#### ASU Degree Production: 2002-03 to 2019-20



## ASU Degree Production: 2002-03 to 2019-20



## Mechanisms of Change: Institutions

Granite Reef Diversion Dam, 1903

## **Institutional Examples**

ASU Chandler Innovation Center

#### ASU Phoenix Downtown Campus

#### ASU Colleges at Lake Havasu City



# ASU Chandler Innovation Center

# ASU Downtown Phoenix Campus

# ASU Colleges at Lake Havasu City



# Mechanisms of Change: Technologies

# **Technology Examples**

# Targeting technologies and industries that don't yet exist

Flexible Electronics and Display Center

Arizona Center for Algae Technology and Innovation

# Flexible Electronics and Display Center

Named by CNN as one of ten ideas that will change the world

# Arizona Center for Algae Technology and Innovation

## What change will ASU create going forward?

## Individuals

## Institutions

# Technologies



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## **Great Little Companies**

# Individuals

## **Pollen Tech**



## Institutions

## **ASU Center for Law and Society**

## **Technologies**

## **Evolution of Complex Social Behavior**

## Why Bees?

Develop breeding systems to improve the quality of honey bee stocks used for pollination, valued at over \$20 billion annually, and honey production

Understand how nutrition during early stages of development affects metabolic functions throughout life and life span

Understand how genetic and hormonal systems evolve and control behavior

Illuminate the neuro-biochemistry of behavior, learning and memory

Understand the fundamentals of associative learning and the relationship between reward value and memory

Understand how complex social behavior self-organizes from collections of individuals

## "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." Margaret Mead

