

# 2023 Endowment Report

October 1, 2022, through September 30, 2023

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**Caltech**



NASA astronaut and former Caltech postdoctoral scholar Jessica Watkins returned to campus in April 2023 to share stories about her research and career. At Caltech, Watkins worked on the Mars Curiosity rover with John Grotzinger, the Harold Brown Professor of Geology and holder of the Ted and Ginger Jenkins Leadership Chair in the Division of Geological and Planetary Sciences. NASA selected Watkins to join its astronaut program in 2017. CREDIT: DWAYNE R. MILES FOR CALTECH

## THE POWER OF OUR SHARED COMMITMENT



On behalf of the Caltech Board of Trustees, I want to offer my sincere gratitude for your philanthropic support. Our shared commitment and dedication help make the extraordinary possible every day at Caltech.

This report encapsulates our endowment's performance from October 1, 2022, through September 30, 2023. A vital source of stable funding for innovation and game-changing research, the endowment empowers our faculty, staff, and students to work on their most ambitious and promising ideas. This past year alone, endowed funds fueled inspiring scientific and technological advances, including

- the historic demonstration of the wireless transmission of solar power from space—an important first step toward tapping into a practically unlimited energy supply;
- a bioinspired robot that can achieve eight types of motion, with applications ranging from the transport of injured people to hospitals to the exploration of distant planets; and

- the first direct image of the filamentous streams of gas that stretch across the darkest corners of space between galaxies (the so-called cosmic web), offering a completely new way to study the universe.

In addition to enabling breakthroughs such as these, our gifts to endowment ensure a financially healthy future for Caltech. They bolster the Institute's ability to recruit and retain world-leading faculty and make it possible for us to continue to meet 100 percent of students' demonstrated financial need.

As an alumnus and donor, I am proud to be a part of a community that has such a positive and lasting impact on science and society.

With appreciation,

**David Thompson (MS '78)**

*Chair, Caltech Board of Trustees  
President and Chief Executive Officer (Retired),  
Orbital ATK, Inc.  
March 2024*

## STAYING THE COURSE

The Caltech Total Endowment Investment Portfolio finished fiscal year 2023\* at \$3.626 billion, representing a 5.2 percent increase over fiscal year 2022's balance of \$3.45 billion. Over the last 10 years, the endowment has grown 76 percent, or 5.8 percent per annum on an annualized basis, while paying out nearly \$1.5 billion to support the Institute's research, students, and operations.

Fiscal year 2023 provided a much-improved investment environment versus a difficult fiscal year 2022. The endowment investment pool generated a 9.9 percent investment return for the fiscal year and, more importantly, an 8.0 percent annualized investment return over the last 10 years, besting our 10-year policy portfolio benchmark of 6.7 percent by 1.3 percentage points and handily beating, by 2.8 percentage points, a global 60/40 equity/debt index of 5.2 percent per annum. Most of our asset classes performed well compared with their benchmarks, with particularly good outperformance coming from our venture capital and alternative securities asset categories.

At the beginning of fiscal year 2023, few, if any, would have predicted the very strong market performance of the U.S. tech sector. Tepid growth, tempered by rising interest rates and inflation-induced demand destruction, or even recession was the consensus. To the contrary, the value of just three U.S. companies—Microsoft, Apple, and Google—grew to now exceed the *combined* market valuations of the DAX 40 (Germany), FTSE 100 (United Kingdom), and MSCI Japan indices. This begs the question of whether U.S. equities can continue to outperform with price-to-earnings (P/E) ratios above 30, or whether now is the time to look to other developed markets in the 20x P/E range, or even to Chinese equities, which have been beaten down mercilessly over the last two years and now are trading in the 10x P/E range or below. Our answer is to stay the course: We suspect that U.S. markets continue to have growth potential, while political and social clarity and stabilization will lead to higher multiples in non-U.S. markets.

In addition, for the first time in many years, we have the tailwind of higher interest rates, which are attractive for an endowment portfolio attempting to achieve an 8.0 to 8.5 percent nominal long-term return.

In the next several pages, you will see myriad numbers covering the endowment investment pool's performance, asset allocation, and expenditures. However, I believe there are some other numbers worth highlighting. The unsung heroes of our small but mighty operations team work daily with more than 100 different investment managers who manage 270 different investment funds on our behalf. During the fiscal year, those managers sent us more than 4,000 investment reports, quarterly letters, and other communications—each of which required review and electronic filing. The operations team processed, recorded, and funded more than 400 capital calls and accounted for a similar number of fund distributions, many of which came in the form of securities, which then required orderly liquidation. In addition, our investment managers requested nearly 75 amendments to their limited partnership and investment management agreements, each of which had to be reviewed by the investment team, the operations team, and our Office of the General Counsel before approval or rejection. We could not do what we do in the Investment Office without our dedicated operations team, for which I am very grateful.

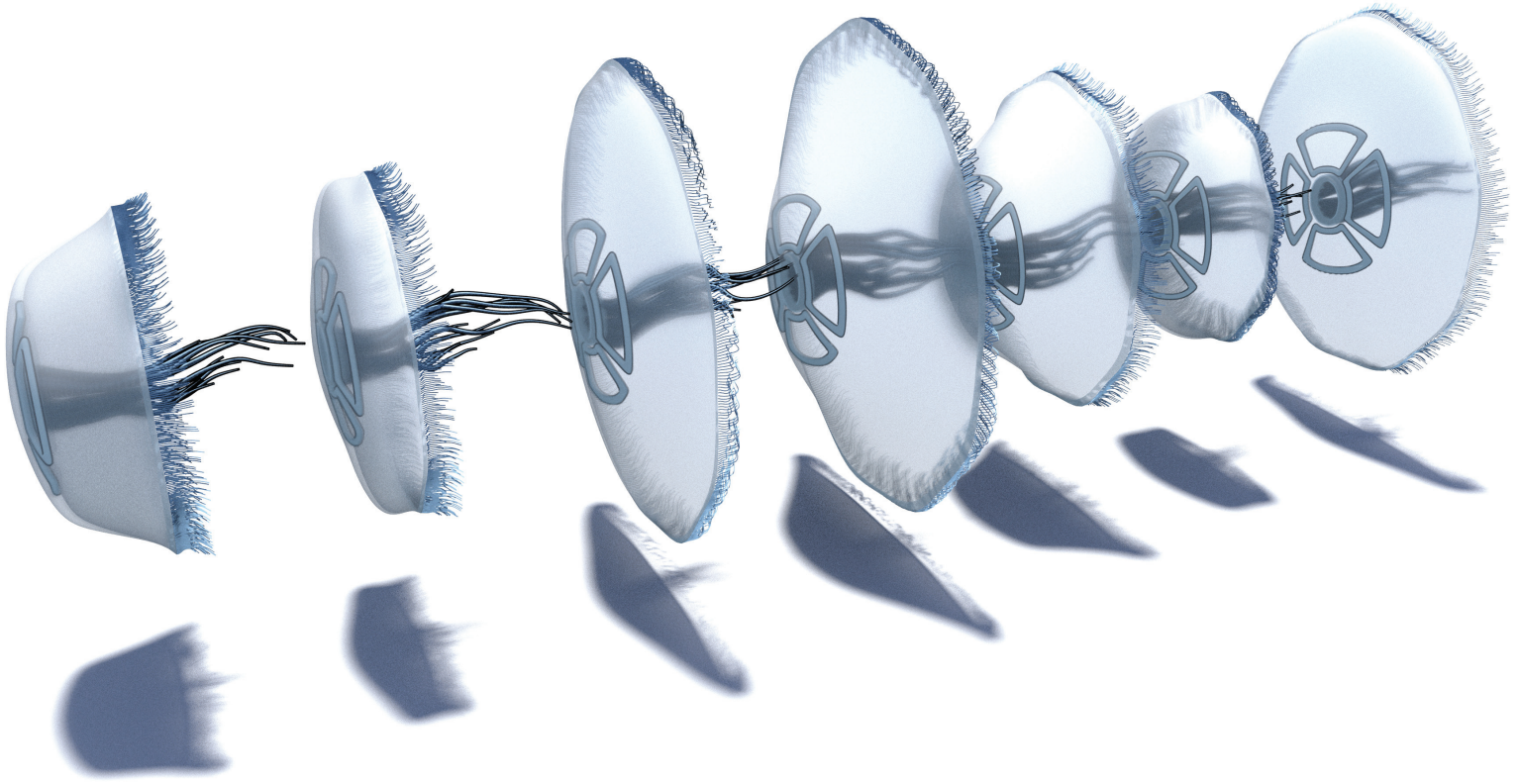
Thank you, as always, for your generous support of Caltech and its endowment.



**Scott H. Richland**  
Chief Investment Officer  
March 2024

\* October 1, 2022, through September 30, 2023





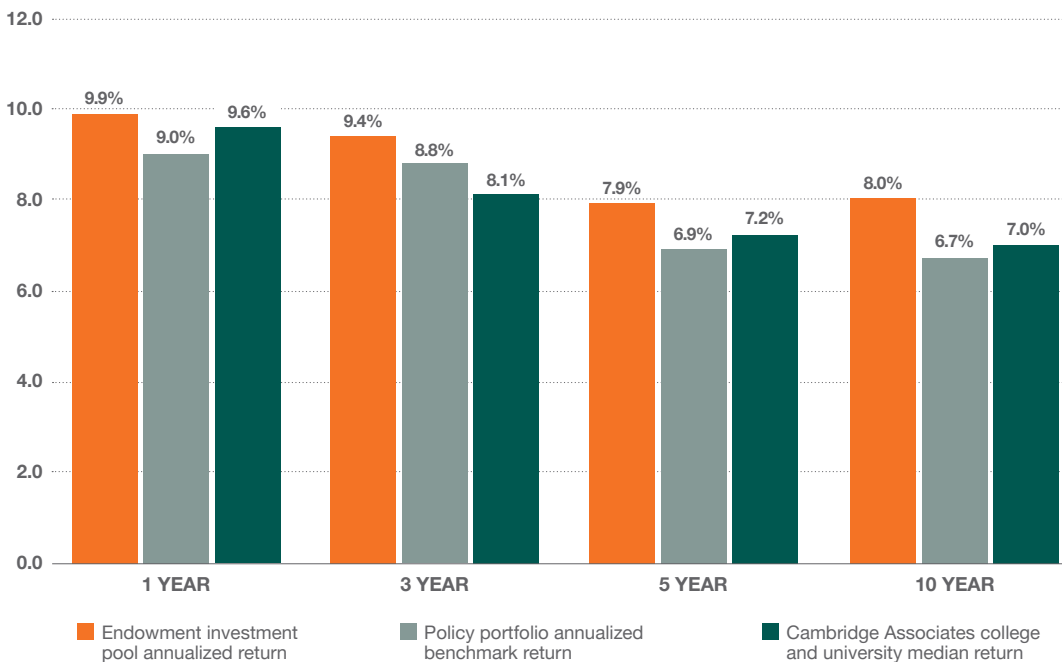
A team of researchers led by Caltech's Peter Schröder, the Shaler Arthur Hanisch Professor of Computer Science and Applied and Computational Mathematics, has discovered a single algorithm that describes how many animals move forward by changing their shape. The finding applies to jellyfish, snakes, and even cats as they twist themselves to land upright. It also explains how astronauts can use a dance-like motion to turn around in zero gravity. CREDIT: CALTECH

## ENDOWMENT INVESTMENT POOL RETURN, FISCAL YEAR 2023

### Endowment Investment Pool Return

As illustrated in the chart below, Caltech's endowment investment pool generated a 9.9 percent return for fiscal year 2023, beating its benchmark policy portfolio by 0.9 percentage points. For the three-, five-, and 10-year periods ended September 30, 2023,

investment pool returns beat their benchmarks by 0.6, 1.0, and 1.3 percentage points, respectively. Over the last five years, the added value generated by this outperformance of the portfolio was over \$147 million.

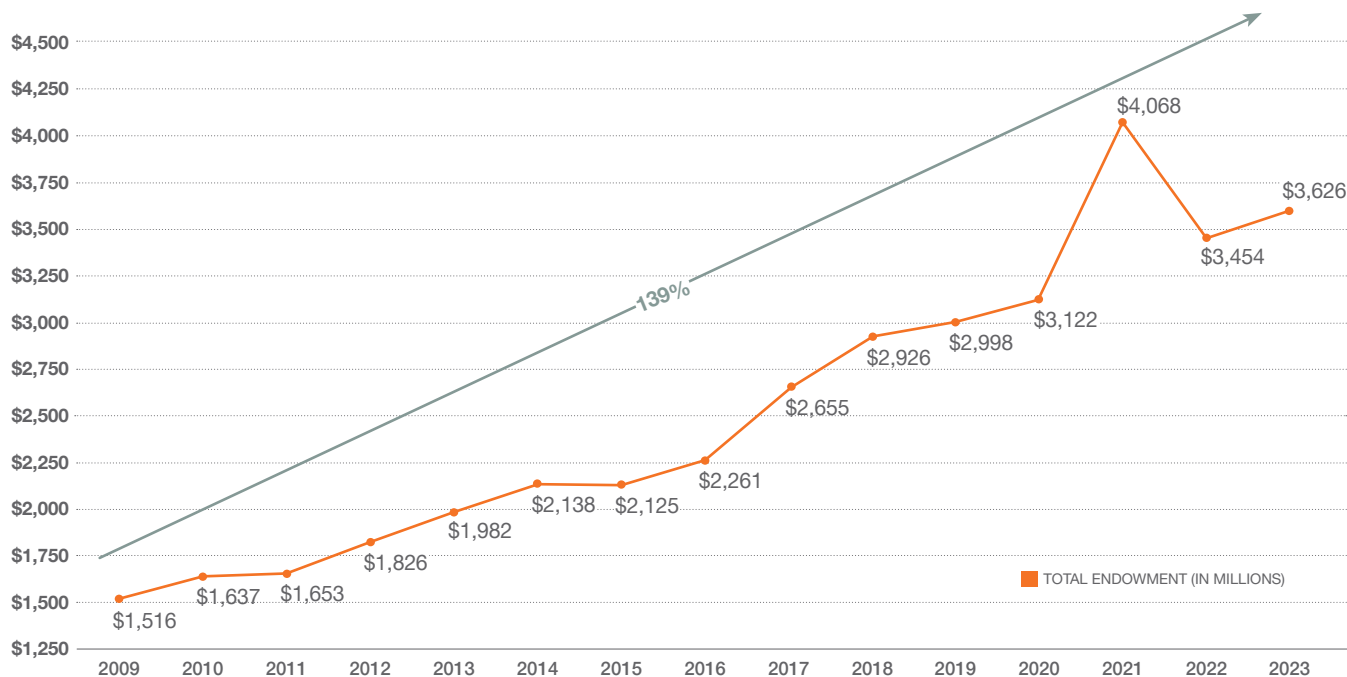


LAST FIVE YEARS:  
**\$197.2M**  
 in student financial aid from endowment

### Growth of the Total Endowment

The market value of Caltech’s total endowment ended the fiscal year at \$3.6 billion. Since the end of fiscal year 2009, the beginning of the recovery from the 2008 financial crisis, Caltech’s total endowment value (net of outflows) has grown at a compound annual rate of 6.4 percent and has supported Caltech’s research programs and people with approximately \$1.9 billion in payout.

**\$2.1 BILLION**  
increase in total endowment since FY09



Total endowment includes the investment pool and separately invested endowments.

### Asset Class Allocation and Performance

Nearly half of the endowment investment pool’s asset classes listed below outperformed their respective benchmarks for fiscal year 2023. Global developed markets equities outperformed its benchmark by 2.1 percentage points, returning 24.1 percent. While emerging markets equities significantly underperformed its benchmark, the overall public equities portfolio (both global developed and emerging markets equities) returned 19.2 percent, in line with its composite

benchmark. The private equity portfolio (which includes both buyout and venture capital funds) lagged its composite benchmark by only 0.3 percentage points, returning 3.1 percent. The real assets portfolio (comprising real estate and energy funds) returned 0.9 percent and lagged its benchmark by a very narrow 0.2 percentage points. Our alternative securities portfolio returned 9.5 percent, ahead of its benchmark by 4.5 percentage points.

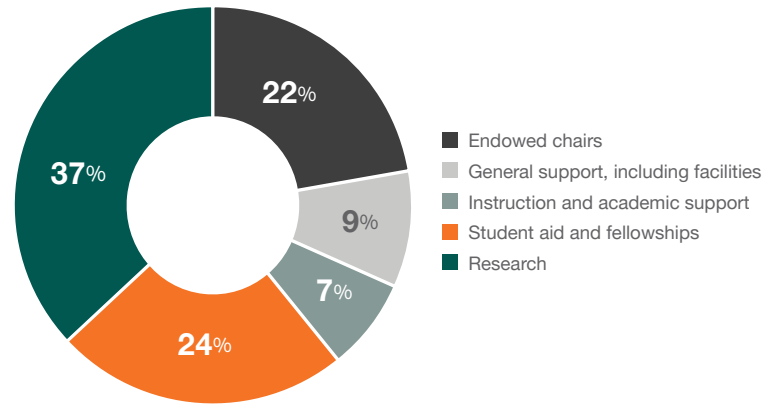
	Allocation*	FY 2023 Asset Class Returns	FY 2023 Benchmark Returns
Global developed markets equities	25%	24.1%	22.0%
Emerging markets equities	7%	2.8%	11.7%
Alternative securities	26%	9.5%	5.0%
Private equity and venture capital	25%	3.1%	3.4%
Real assets**	13%	0.9%	1.1%
Global fixed income	1%	13.4%	0.8%

\* Allocations do not add up to 100 percent due to rounding.

\*\* Primarily real estate, energy, and commodities

## ENDOWMENT PAYOUT, FISCAL YEAR 2023

In fiscal year 2023, **\$187.2 million in endowment payout contributed 21 percent of Caltech's operating budget**, supporting research and education in many ways. Endowed fellowships, for example, afforded graduate students the freedom to pursue their passions, unconstrained by the limitations of traditional funding sources. And endowed scholarships enabled talented and ambitious undergraduates to devote themselves to learning without worrying about the cost of their education or graduating under a burden of debt.

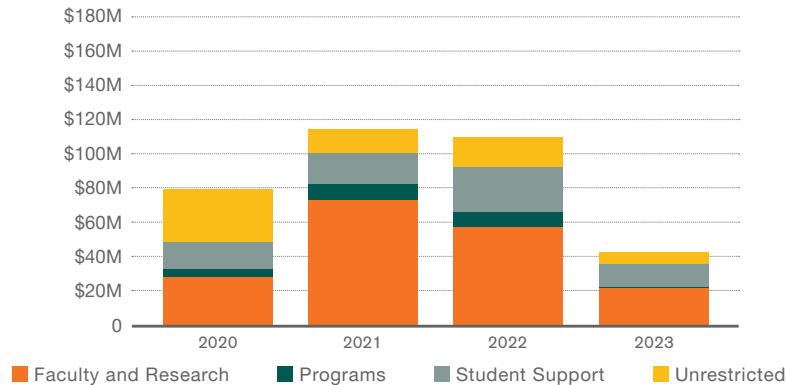


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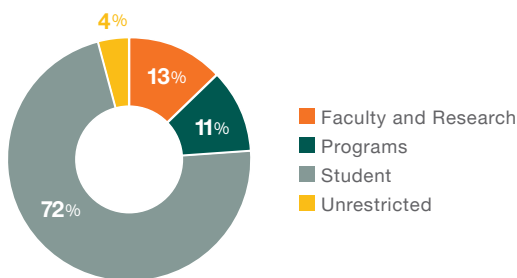
## GIFTS TO THE ENDOWMENT

In fiscal year 2023, **new gifts to endowed funds (excluding pledges) totaled \$42.5 million**. Over the four-year period beginning with fiscal year 2020, the cumulative total of new gifts to endowed funds was \$346.2 million.

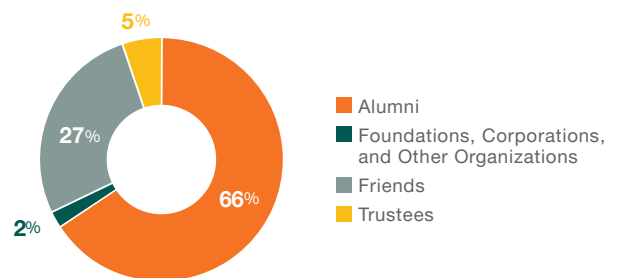
**New Gifts to Endowed Funds**  
FOUR-YEAR TOTAL: \$346.2 MILLION



**FY 2023 Endowment Gifts by Purpose: 632 Gifts**



**FY 2023 Endowment Gifts by Donor Group: \$42.5 Million**



# MANAGEMENT OF THE ENDOWMENT INVESTMENT PORTFOLIO

The Caltech Investment Office reports jointly to the Institute's president and the Board of Trustees' Investment Committee, which has primary responsibility for setting investment policy, overseeing policy implementation, and approving major investments. The committee meets at least quarterly to discuss and review asset allocation, investment policies, new investments, and portfolio performance. Committee members also interact with the Investment Office between regularly scheduled meetings to discuss specific investments and time-sensitive opportunities. The members bring extraordinary expertise in both specific asset classes and the investment industry in general.

## The Investment Office

The Investment Office develops recommendations on investment policies, strategies, and asset allocations for review and approval by the Investment Committee. With the

general guidelines in place, the Investment Office then identifies investments and what it considers to be best-in-class asset managers around the world who can effectively implement the adopted investment strategies. The office manages the endowment with ample liquidity in mind and focuses primarily on medium- to long-term performance, identifying global trends and investment opportunities that may develop over many years. While quarter-to-quarter performance is closely monitored, and appropriate portfolio adjustments are made from time to time, the primary goal is to earn long-term rates of return that support the annual endowment payout and maintain the endowment's inflation-adjusted purchasing power, allowing it to support Caltech's activities for generations to come.

For more information about asset allocation, risk management, and endowment liquidity, please visit <https://bit.ly/investmentprinciples>.

## INVESTMENT COMMITTEE MEMBERS

### Timothy J. Sloan, Chair

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### Kneeland Youngblood, Vice Chair

Founding Partner, Chairman, and CEO, Pharos Capital Group

### Joshua S. Friedman, Member\*

Co-Founder, Co-Chairman, and Co-Chief Executive Officer, Canyon Partners, LLC

### G. Bradford Jones, Member

Founding Partner, Redpoint Ventures

### David L. Lee (PhD '74), Member

Chair Emeritus, Caltech Board of Trustees  
Managing General Partner, Clarity Partners, L.P.

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President and Chief Executive Officer,  
Lipper Advisory Services

### Li Lu, Member

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### Thomas F. Rosenbaum, Ex Officio Member

President, Sonja and William Davidow Presidential Chair,  
and Professor of Physics, Caltech

### David W. Thompson (MS '78), Ex Officio Member

Chair, Caltech Board of Trustees  
President and Chief Executive Officer (retired),  
Orbital ATK, Inc.

### Jane Buchan, Advisory Participant

CEO and Co-Chief Investment Officer  
Martlet Asset Management

### Lance N. West (MS '83), Advisory Participant

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\* Past Investment Committee Chair

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# Caltech

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**COVER:** For the first time, scientists have developed a quantum experiment that allows them to study the dynamics of a special kind of theoretical wormhole. "We found a quantum system that exhibits key properties of a gravitational wormhole yet is sufficiently small to implement on today's quantum hardware," says Maria Spiropulu (left), Caltech's Shang-Yi Ch'en

Professor of Physics and principal investigator of the U.S. Department of Energy Office of Science research program Quantum Communication Channels for Fundamental Physics.

CREDIT: INQNET/A. MUELLER FOR CALTECH

**ABOVE:** Caltech established the Center for Science, Society, and Public Policy in 2023 to support research and provide a forum for debate on topics at the intersection of science and society and to help shape public science policy. Affiliated with The Ronald and Maxine Linde Institute of Economic and Management Sciences, the center is focusing initially on climate and sustainability, bioethics, and artificial intelligence. On May 5, 2023, the center hosted a roundtable titled "Shaping the Future: Societal Implications of Generative AI." CREDIT: VAN URFALIAN