Volunteering for scientific community services as an effective career boost in Optics and Photonics.

Bernard Kress

Director XR engineering, Google
2023 President, the International Society for Optics and Photonics (SPIE.org)

Bernard.kress@spie.org

Politechnika Warszawska

UCZELNIA BADAWCZA

PPTF Polish Technological Platform on Photonics

Are volunteering scientific community services compatible with a successful career in high tech, and how can one nurture the other?

Reflections over my own experience in the International Optics and Photonics Community.

What is a career?

Career actually has two definitions.

The word career is often used to refer to a profession, occupation, trade or vocation. A career could define what you do for a living and range from those that require extensive training and education to those you can perform with only a high school diploma and a willingness to learn.

Career has another definition as well. It also refers to the progress and actions you have taken throughout the working years of your life, especially as they relate to your occupation. It is comprised of the different jobs you have held, titles you have earned and work you have accomplished over a long period of time.

There are several different kinds of career paths.

A) Multiple unrelated jobs: Your career could be made up of multiple jobs that are unrelated to one another. For example, you could work as a car mechanic, then as a chef in a restaurant and then as a receptionist in a veterinary clinic and perhaps eventually as an engineer at Google. Because each job is vastly different than the next, there is no way to predict what your next position will be. Because they have very little in common, you may not see significant pay increases from one to the next or significant increases in responsibility.

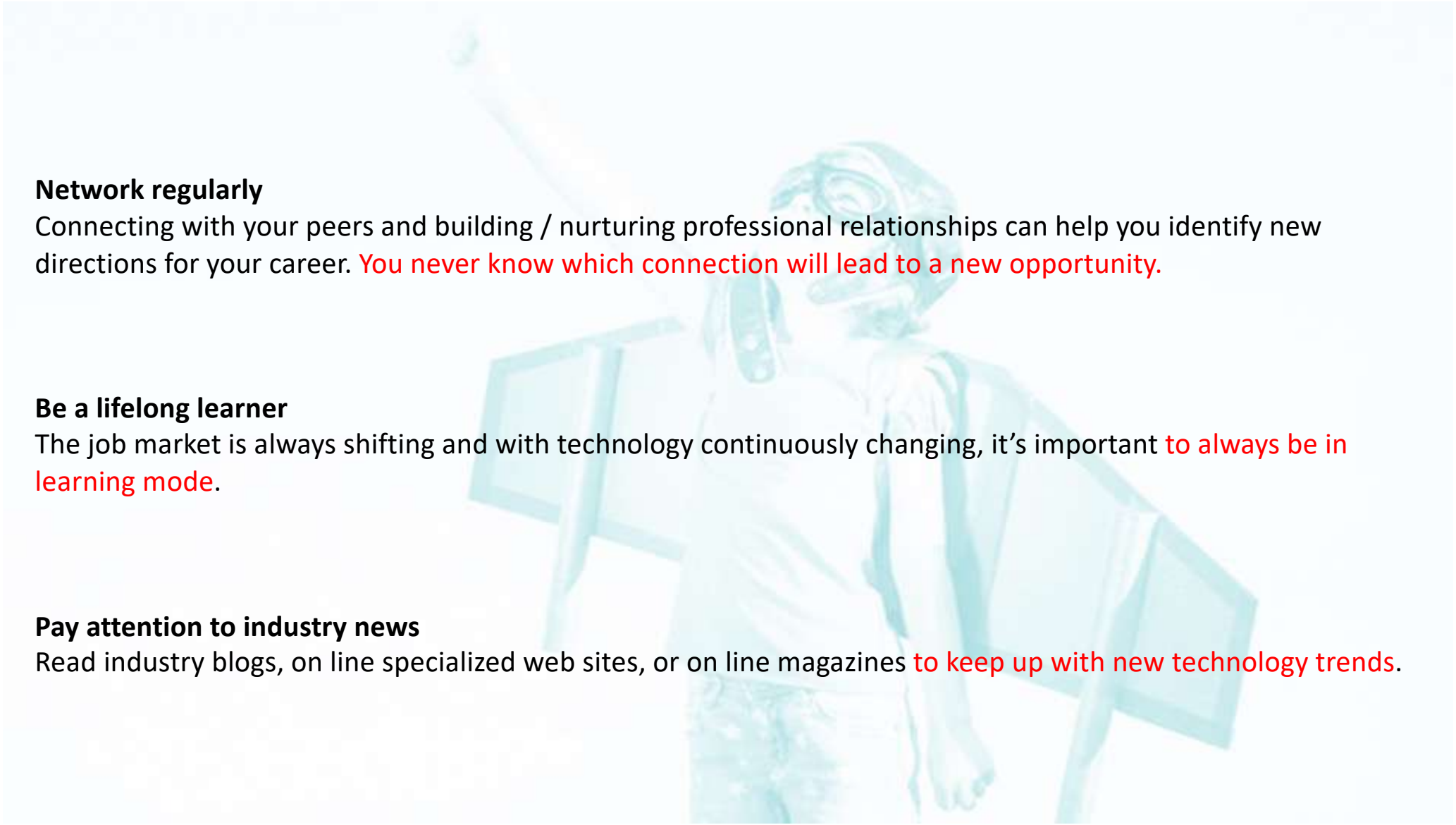
B) Advancing within the same level by changing industry/academia: This path involves advancing in the same occupation, whether you work for the same organization or at different successive companies. For example, you can be an engineer working on various projects at Apple in software, at Amazon in EE, at Microsoft in UX, at Facebook in ME and at Google in Optical Engineering. This can be amazingly fulfilling for many people who are not seeking increased responsibility or increased monetary rewards, but rather are eager to learn new things and get richer this way.

C) Advancing in the same industry or academia by increasing levels: For example, after your Master in EE, you may start as a junior engineer, then senior, then principal, then director, then General Manager and eventually VP. This can be as fulfilling as changing fields, with the added benefit of advancing responsibility and monetary rewards through early stock vesting. But beware of the “rest and vest” syndrome.

The importance of networking

- intra-company networking (often falsely defined as “internal politics”),
  - inside your org: be prepared for re-orgs and mergers, intra-team moves,…
  - outside your org: helps in lateral moves

- extra-company networking, national and international
  - academic relations (industry affiliations)
  - international societies (scientific and others)
  - industry (large corporations, start-ups, university spin-offs,…)
  - venture capital world (providing due diligence services, …)
  - …



Network regularly
Connecting with your peers and building / nurturing professional relationships can help you identify new directions for your career. You never know which connection will lead to a new opportunity.

Be a lifelong learner
The job market is always shifting and with technology continuously changing, it's important to always be in learning mode.

Pay attention to industry news
Read industry blogs, on line specialized web sites, or on line magazines to keep up with new technology trends.

Triggered by networking:
the importance of lateral moves.

Make plans but be flexible
When developing your career path, don't hold on too tightly to a specific plan. Be open to new opportunities that might present themselves and keep your goal in mind. Know what is important to you and what you enjoy about your job and your career. Also, be aware of what you would like in a future career that's different than what you're doing now.

Be ready for career shifts
If you've been in your position or are in an industry that is declining, it may be time to consider making a complete career change or at least shifting in a different direction.

Be open to lateral moves
Be open to the idea of a lateral move, or even a step backward, if it means you will have a chance to develop valuable skills or connections that can impact your career in the long term.

We are in 2023:
Career moves are triggered today faster than previously

LASER FOCUS WORLD

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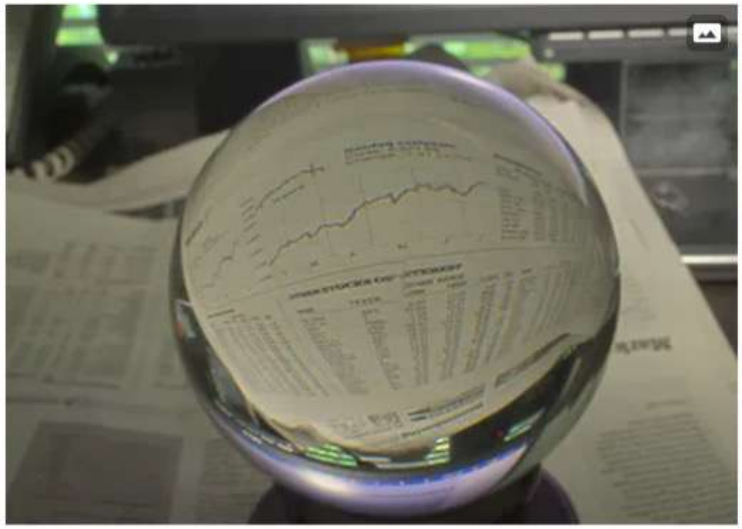
EXECUTIVE FORUM

Lingering challenges in the photonics industry

We are in the middle of very strange economic times: are we in a boom, a recession, or both?

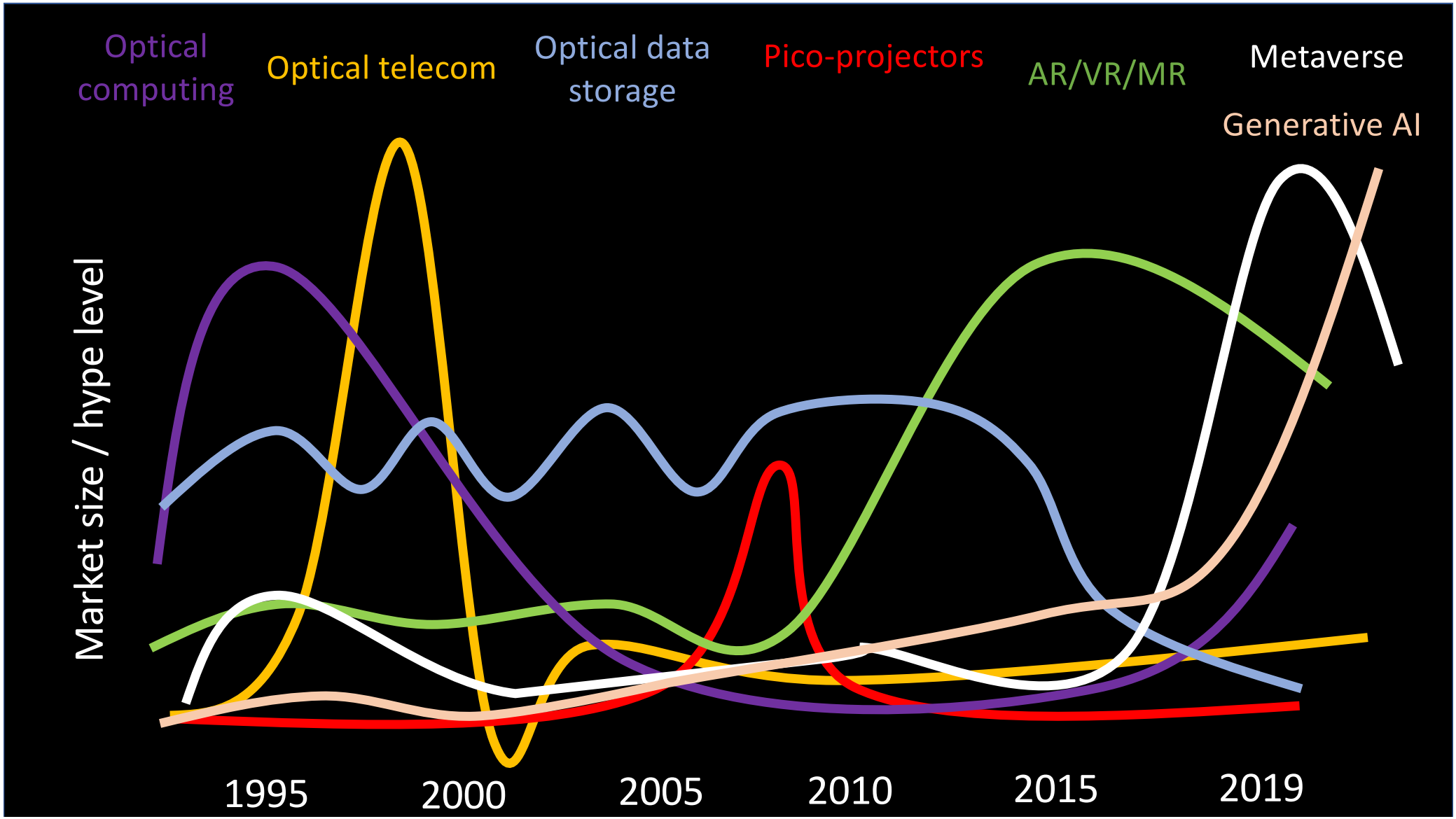
Peter Fretty

Nov. 17, 2022



We are in the middle of very strange economic times. Many of the traditional indicators are providing contradictory results. Are we in a boom, a recession, or both? Inflation is impacting

Optics and Photonics are key enabling technologies that helped built up successive tech waves over the past decades, developing building blocks that are constantly re-engineered to be adapted to the next tech waves.
Very seldom does this strong engineering community produce a boom (or bubble) on its own, unlike other hyped tech sectors.


Optical computing
Optical telecom
Optical data storage
Pico-projectors
AR/VR/MR
Metaverse
Generative AI
Market size / hype level
1995
2000
2005
2010
2015
2019

A few examples on how successive booms provided strong technology platforms to the current AR/VR field

The long journey of LBS MEMS display

News | April 20, 2000

MEMS Technology Grabs The Telecom Spotlight

Source: Lucent Technologies

Lucent Technologies-electromechanical systems (MEMS) technology captured the limelight at OFC '00 and has since been making headlines in a big way, particularly in switching applications.

Contents

Editor's Report

Once a laboratory curiosity, micro-electro-mechanical systems (MEMS) technology has come into its own, dominating the recent Optical Fiber Communications Conference (OFC '00; Baltimore, MD; March 5-10) with switching applications (*see OFC 2000: Optical Switching Systems Stir Up Wavelength Management Debate*).

Three start-ups made headlines during the conference: Sunnyvale, CA-based Xros Inc. (pronounced *Chi*-ros, as in the Greek letter *chi*), Optical Micro-Machines (San Diego), and Cronos (Research Triangle Park, NC). Meanwhile, Lucent showcased its LambdaRouter, announced in October at Telecon '99 (Geneva).

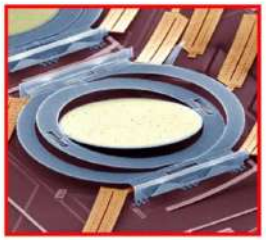
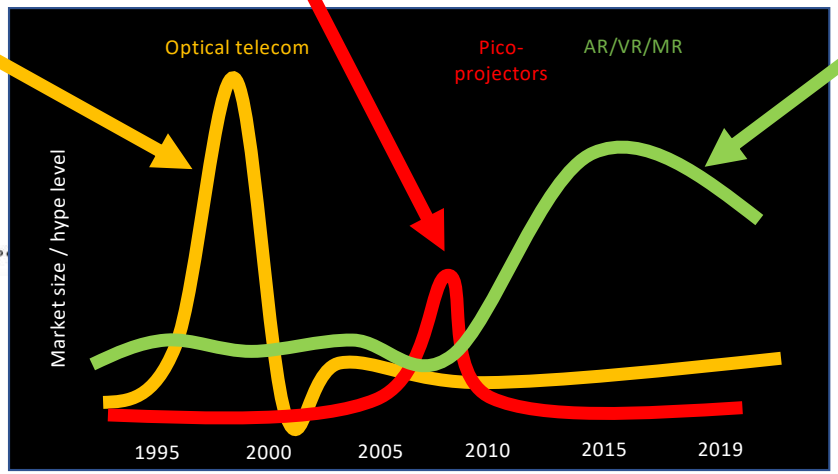
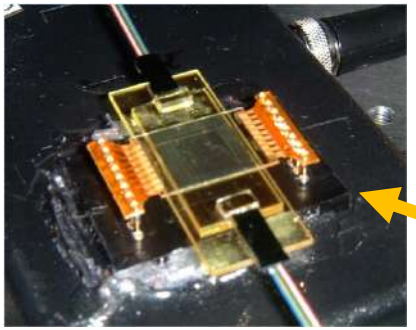


Figure 1. Part of a 16 x 16 element array, optical switch micromirror from LambdaRouter tilts on two ... redirect an optical beam. (Courtesy of <%=company%>)



The long journey of volume holographic waveguide gratings

DIGILENS



InPhase to finally ship Tapestry 300r holographic storage solution in May

InPhase Technologies

AKONIA HOLOGRAPHICS

Holographic Data Storage

DOE Nuclear Physics Phase II Fasttrack

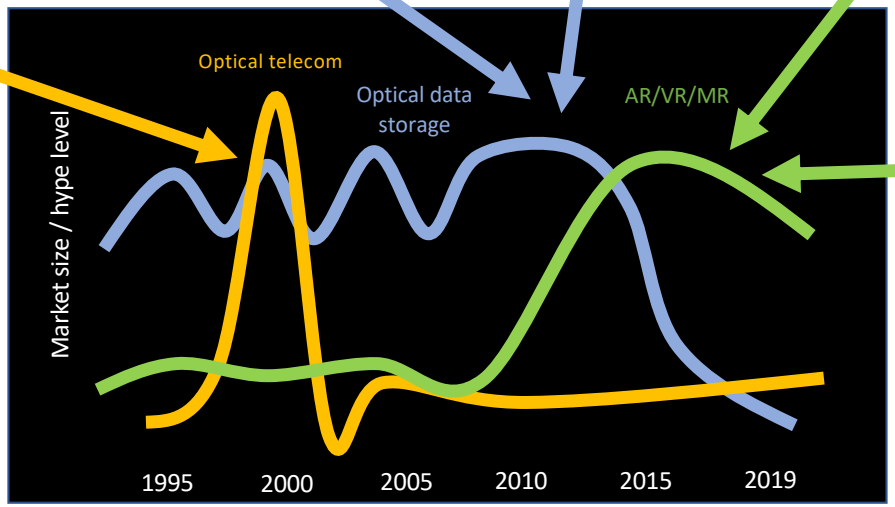
AKONIA HOLOGRAPHICS

BRINGING DATA STORAGE SOLUTIONS TO LIGHT

Dr. Ken Anderson, CEO, PI
DOE Phase II SBIR Conference
August 10th, 2016

VentureBeat

Apple acquires Akonia Holographics, a startup that makes lenses for AR glasses



siliconANGLE [the voice of enterprise and emerging tech]

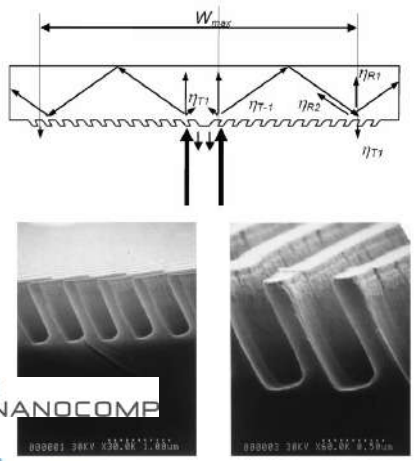
CLOUD AI SECURITY INFRA BLOCKCHAIN POLICY BIG DATA APPS EMERGING TECH

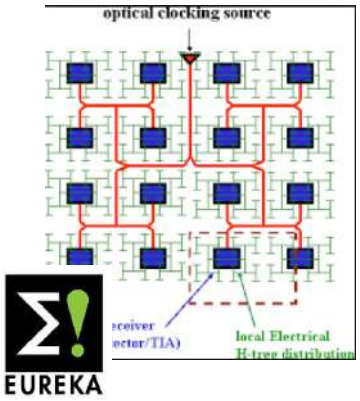
EMERGING TECH

Meta acquires VR and AR optics technology company ImagineOptix

The long journey of slanted waveguide gratings

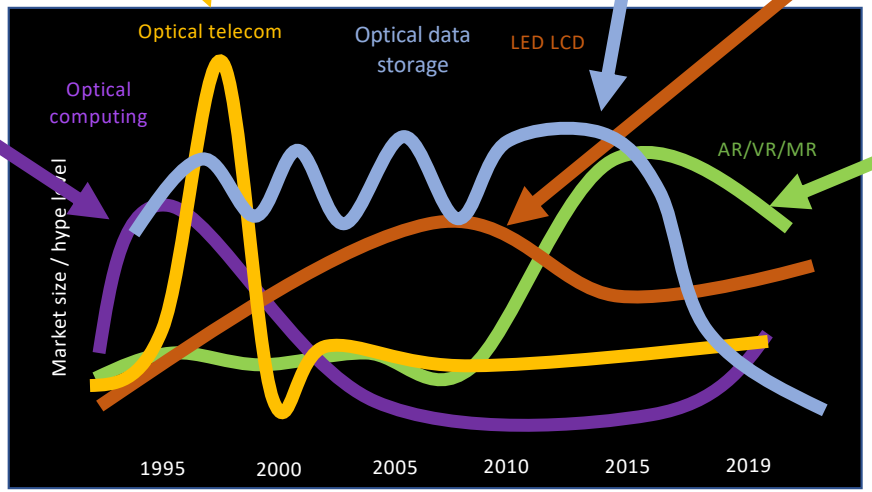
Optical clock broadcasting in MCM

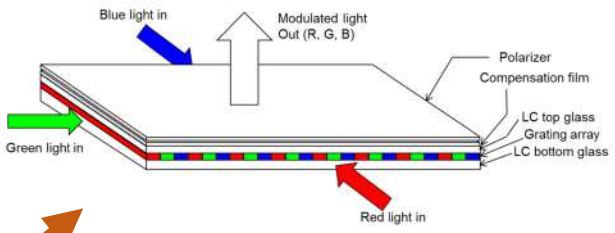




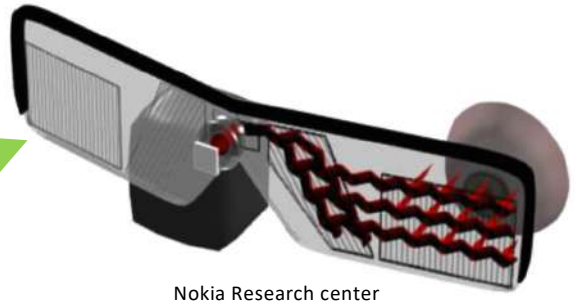
Digilens DGE
Dynamic waveguide grating coupler

InPhase to finally ship Tapestry 300r holographic storage solution in May

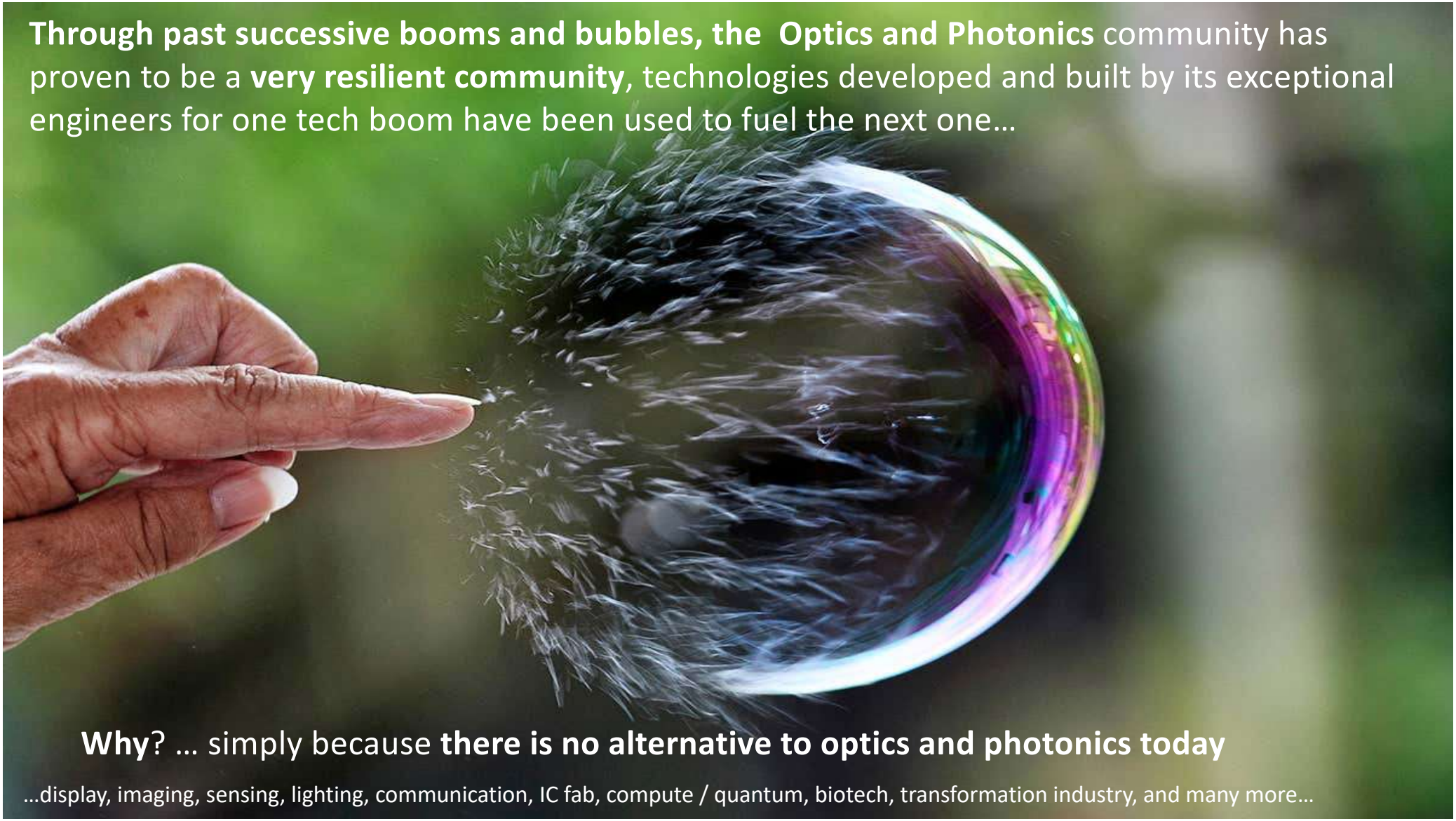




J. Kimmel, and T. Levola, "Mobile display backlight light guide plates based on slanted grating arrays," SPIE Eco-Photonics, Strasbourg, March 30th, 2011



Nokia Research center


Through past successive booms and bubbles, the Optics and Photonics community has proven to be a **very resilient community**, technologies developed and built by its exceptional engineers for one tech boom have been used to fuel the next one…
Why? … simply because **there is no alternative to optics and photonics today**
…display, imaging, sensing, lighting, communication, IC fab, compute / quantum, biotech, transformation industry, and many more…

What is a scientific society and a scientific community?

SOLVAY CONFERENCE 1927

colourized by pastincolour.com

A. PICARD E. HENRIOT P. EHRENFEST Ed. HERSEN Th. DE DONDER E. SCHRÖDINGER E. VERSCHAFFELT W. PAULI W. HEISENBERG R.H FOWLER L. BRILLOUIN

P. DEBYE M. KNUDSEN W.L. BRAGG H.A. KRAMERS P.A.M. DIRAC A.H. COMPTON L. de BROGLIE M. BORN N. BOHR

I. LANGMUIR M. PLANCK Mme CURIE H.A. LORENTZ A. EINSTEIN P. LANGEVIN Ch.E. GUYE C.T.R. WILSON O.W. RICHARDSON

Absents : Sir W.H. BRAGG, H. DESLANDRES et E. VAN AUBEL


SPIE.
CONNECTING MINDS.
ADVANCING LIGHT.


ICO
INTERNATIONAL COMMISSION FOR OPTICS
COMMISSION INTERNATIONALE d'OPTIQUE


OPTICA
Formerly OSA


IEEE
Photonics
Society


PHOTONICS SOCIETY
PSP
OF POLAND


Conference Series


EOS
European Optical Society


EPIC
European Photonics
Industry Consortium


Société Française d'Optique

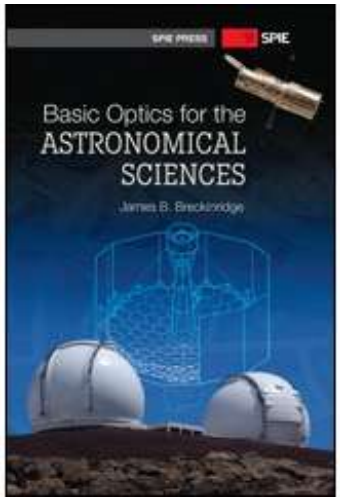

中国光学学会
COS
THE CHINESE OPTICAL SOCIETY


SCIEN
The Stanford Center for
Image System Engineering


OSK
OPTICAL SOCIETY OF KOREA
30
YEARS

This is my first SPIE membership (1994), I was freshmen student at the University in Strasbourg.

This membership was signed by then-SPIE-President James Breckinridge (Professor at JPL/CALTECH), a pioneer in optical design for astronomical observations.



… I am signing the SPIE memberships this year as the new SPIE president, 30 years later. ;-)

Take responsibility in helping define and shape the future of your own field with international scientific societies.

There are many ways to get involved…

SPIE.
CONNECTING MINDS. ADVANCING LIGHT.

Membership (student chapter, early career member, industry member)	Author (poster, paper, reviewer, invited talk, keynote speaker, exhibitor,…)	Session chair and conference co-chair	Technical committees membership	Senior member	Fellow	Board member	Presidential chain
1994	1995	1998	2004	2010	2012	2016	2021

A Society is welcoming you no matter who you are or where you are, while a company is reviewing your background and legal / immigration status.

A Scientific Society will look at your effective scientific work and community contributions, not at your social and legal status, employment card, green card, visa, etc…

You can join a Society whenever you wish, you can leave a Society whenever you wish, you can re-join whenever you wish, you cannot get fired from a Scientific Society, however you can chose to stay your entire professional life with a Society,… if you wish so…

My own journey over the past 3 decades

Academia (10 years)	Start up entrepreneurship (10 years)	Large corporations (10 years)

1992 1996 2000 2004 2008 2012 2016 2020 2023

WPI, UC San Diego, DIGILENS, Horus technologies, Google [x], Google, King's College London, Université de Strasbourg, SIEMENS, Microsoft

A very diverse path, but one single backbone over 30 years: **Optics and photonics**
and one constant and same external involvement: **the International Society for Optics and Photonics (SPIE)**

Get involved in national and international events related to your field

Take part at various events during the international day of light (May 16th)

United Nations Educational, Scientific and Cultural Organization

International Day of Light

Take part in international events celebrating your field (UNESCO International Year of Light 2015)

United Nations Educational, Scientific and Cultural Organization

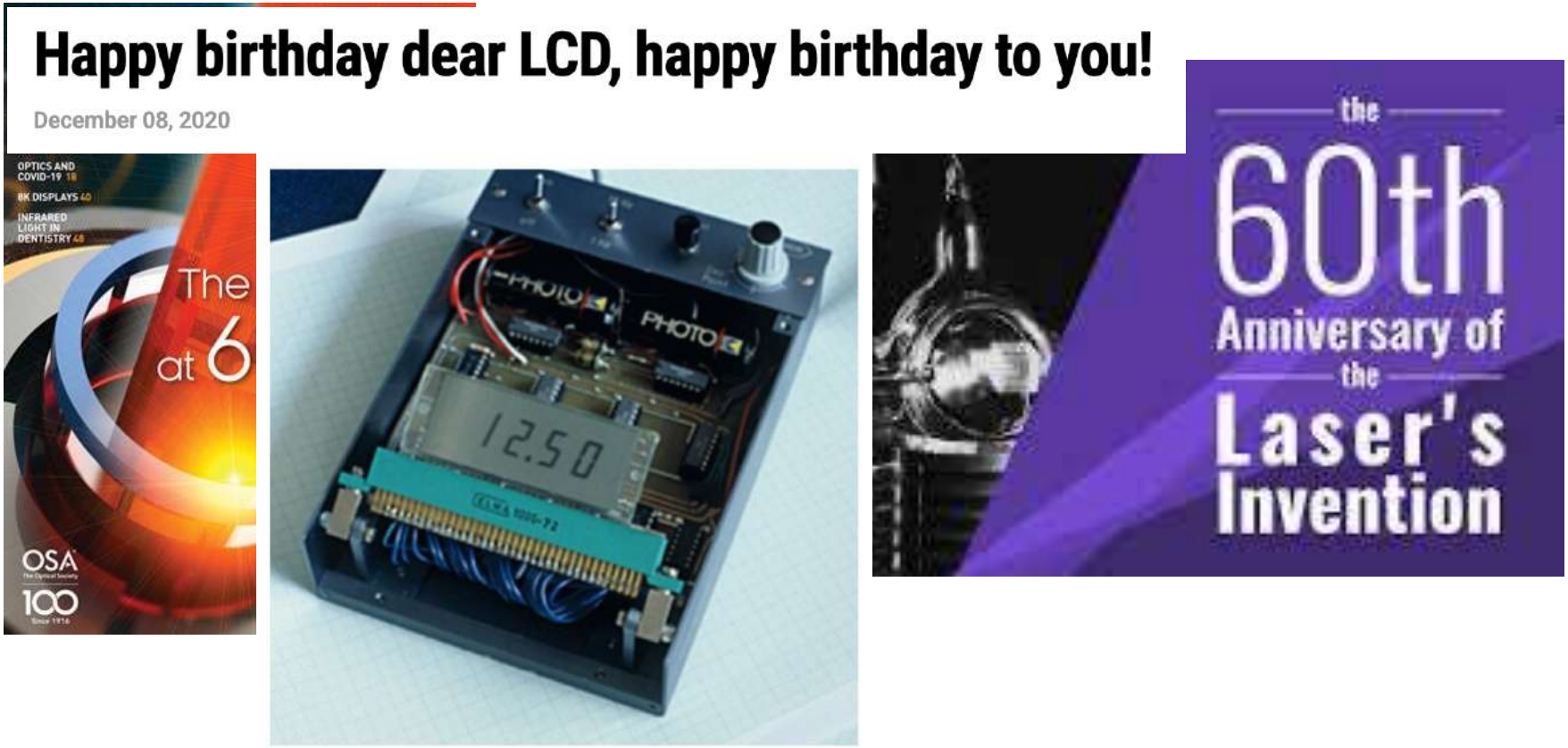
INTERNATIONAL YEAR OF LIGHT 2015

International Day of Light

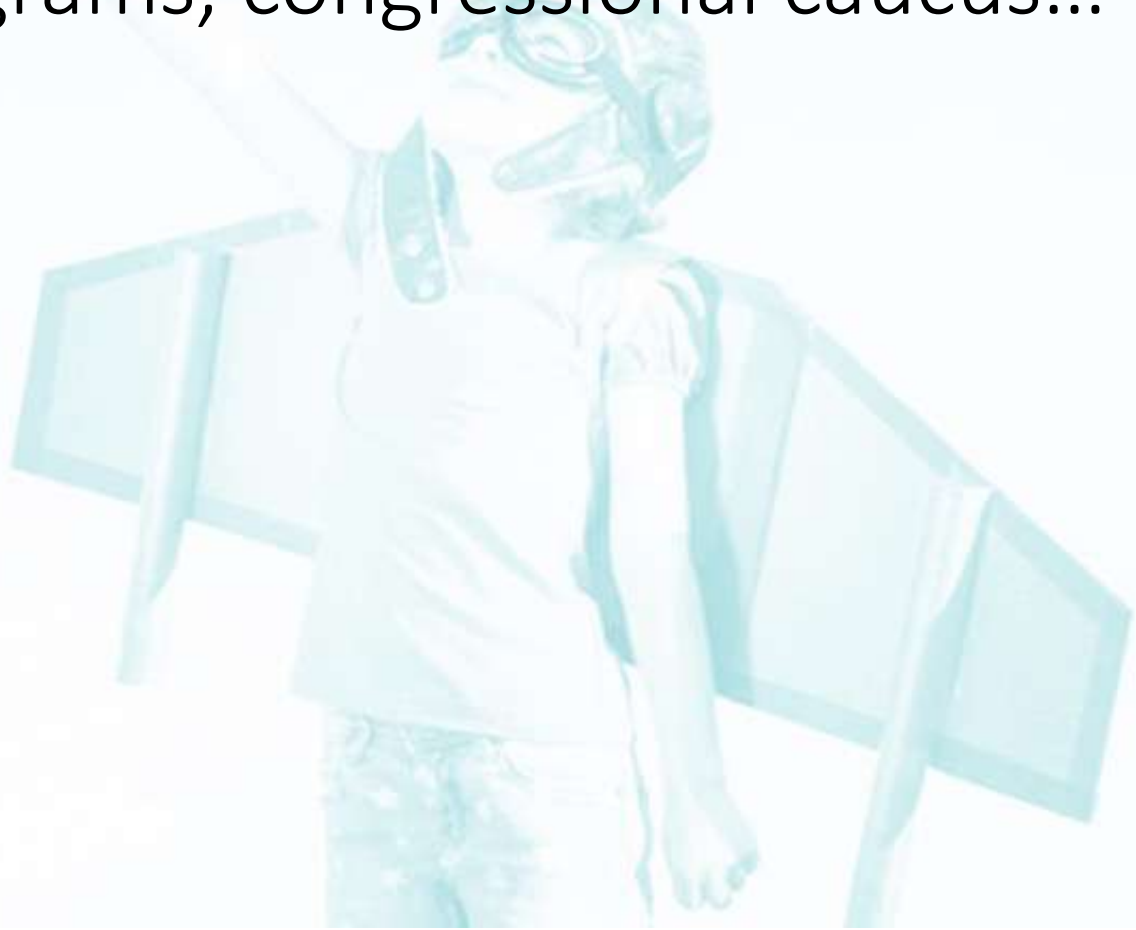
16 May

Take part in regional events

Talk part at various technology milestones anniversaries celebrated in your field



Get involved in governmental institutions, national programs, congressional caucus…



CONGRESSIONAL OPTICS & PHOTONICS CAUCUS

Support the NEW Congressional Optics & Photonics Caucus

Click here to watch the Congressional Optics & Photonics Caucus Launch Event

The Bipartisan, Bicameral Congressional Optics & Photonics (O&P) Caucus is a Congressional organization that will be co-chaired by Representatives Joe Morelle (D-NY) and Brian Mast (R-FL) and Senators Kyrsten Sinema (D-AZ) and Steve Daines (R-MT). The O&P Caucus will work to educate members of Congress and their staffs about the importance of light-based research and technologies to the United States' economy, security, and scientific development. It will also advocate for federal investment in this innovative and exciting space. The O&P Caucus will serve as a positive, proactive voice for the optics and photonics community within Congress and as a bridge to the Administration.

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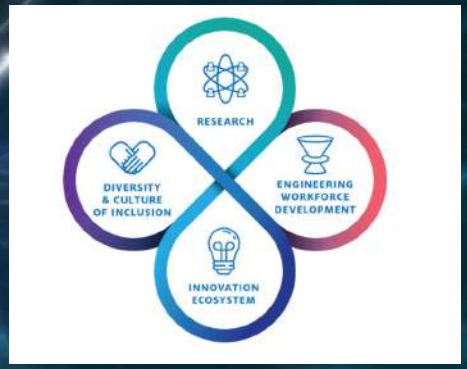
NATIONAL QUANTUM INITIATIVE

THE FEDERAL SOURCE AND GATEWAY TO QUANTUM R&D ACROSS THE U.S. GOVERNMENT



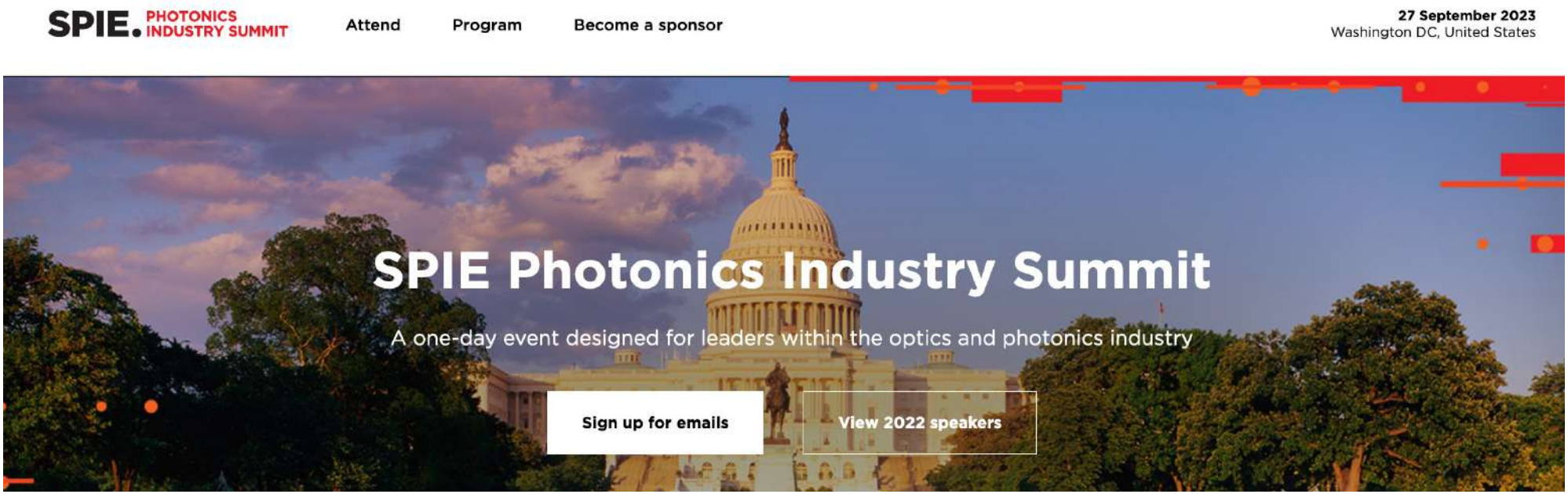
Welcome to *quantum.gov*, the home of the National Quantum Initiative and ongoing activities to explore and promote Quantum Information Science. The National Quantum Initiative Act was signed into law on December 21, 2018. The purpose of this Act is to ensure the continued leadership of the United States in quantum information science and its technology applications. It provides for a coordinated Federal program to accelerate quantum research and development for the economic and national security of the United States.

RECENT REPORTS

- A Coordinated Approach to Quantum Networking Research, January 19, 2021
- Annual Report on the NQI Program Budget, January 14, 2021
- Quantum Frontiers Report, October 7, 2020
- A Strategic Vision for America's Quantum Networks, February 7, 2020
- National Strategic Overview for Quantum Information Science, September 24, 2018

MORE PUBLICATIONS »

Mingle with governmental agencies around hot topics (CHIPS act for photonics)



Interface directly with key contacts at NIST, NSF, ARPA, OSTP, etc…

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WORKSHOP

Public Workshop - Medical Extended Reality: Toward Best Evaluation Practices for Virtual and Augmented Reality in Medicine

MARCH 5, 2020

Time	Event
8:30 AM	**Opening Remarks** Edward Margerrison (Director, OSEL/CDRH/FDA) *Welcome and event introduction.*
	Emerging Technology and Methods I Moderator: Aldo Badano (*Deputy Director, DIDSR/OSEL/CDRH/FDA*) *This session will provide an overview of emerging augmented and virtual reality technology, current evaluation methods, and evaluation challenges.*
8:40 AM	***Rafael Grossmann, MD, FACS*** *Keynote address on extended reality devices in medicine.*
9:00 AM	***Bernard Kress, Microsoft*** *Advances in mixed reality devices and new evaluation challenges*
9:15 AM	***Hiroshi Mukawa, Sony*** *Emerging technologies for addressing performance limitations in extended reality devices, such as motion-to-photon latency compensation, and retinal scan displays.*
9:30 AM	***Vinay Narayan, HTC*** *Advances in virtual reality devices and characterization methods*
9:45 AM	***Don Gyou Lee, LG*** *Advances in display technology and evaluation challenges*
10:00 AM	***Kevin MacKenzie, Facebook Reality Labs*** *Next-generation extended reality devices and evaluation methods*
10:15 AM	***Panel Discussion*** *Discussion on topics from* Emerging Technology and Methods I

Get involved in the right discussions to further AR products and their acceptance in enterprise, especially in the medical field (FDA).

Get involved in panels to define standards across your industry

Industry Event

Sunday Panel: The Development of XR Hardware Standards

28 March 2021 • 4:30 PM - 5:30 PM PDT ● LIVE EVENT

Panel Moderator

Compound Photonics

Edmund Passon
Co-CEO
Compound Photonics (United States)

The Development of XR Hardware Standards

The high demand for Augmented Reality and Mixed Reality are forecast to continue in the next five years. The adoption rate has been accelerated as the technologies became more valuable for companies to conduct business and operations during the pandemic. To realize the true potentials of AR, VR, MR, Edmund Passion will moderate a panel of industry experts and thought leaders on how the stakeholders in the ecosystem can work together on standardization that can cater to the multiple disciplines involved.

Panelists

Lumus

Aviv Frommer
Executive VP R&D
Lumus (Israel)

Microsoft

Gary Sullivan
Chairman
ISO/IEC JTC 1/SC 29 (United States)

Google

Grace Lee
Sr. Display Development Manager
Google (United States)

Niantic

Michael Miller
Augmented Reality Hardware Lead
Niantic (United States)

NIST

John Penczek
Researcher
NIST (United States)

3M

Erin McDowell
AR/VR Business Development Manager
3M (United States)

ColorLink

Yoshitaka Sato
President
ColorLink (Japan)

Microsoft

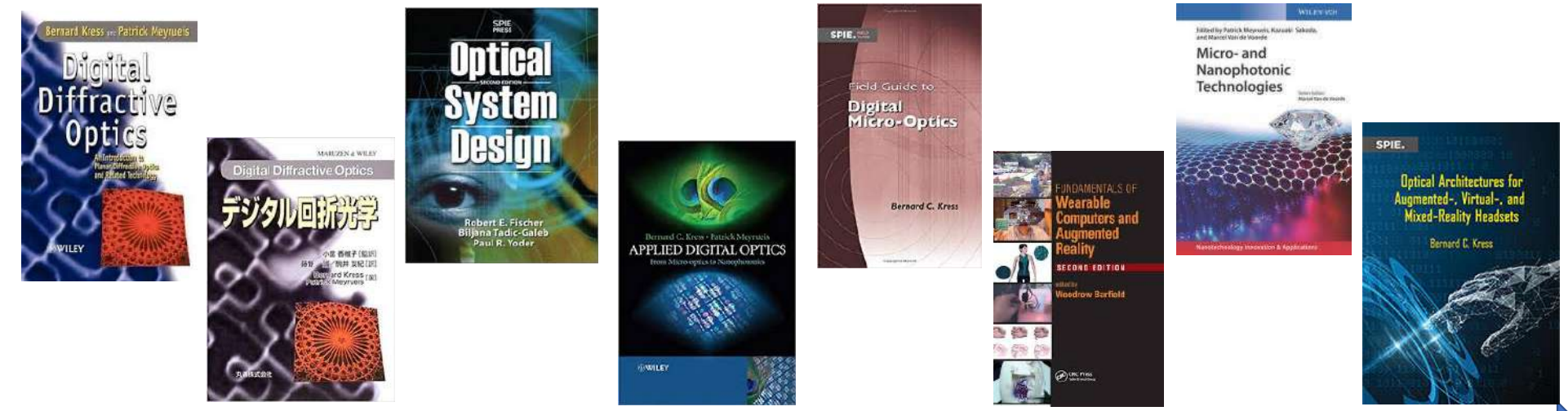
Jeffrey Margolis
Principle Systems Architect
Microsoft (United States)

Live Q&A with the speakers

Contributing to book chapters and authoring scientific books

Authoring books can be a very rewarding weekend activity

(…but ask your spouse, partner and/or kids first…)



2000 2004 2008 2012 2016 2020

Getting involved in international societies allows you to meet the pioneers in your field…

… and choose a great mentor... and prepare to be a mentor yourself...

An amazing perk in being involved in international societies: mingle with your heroes!

Gabriel Lipmann (Nobel 1908)

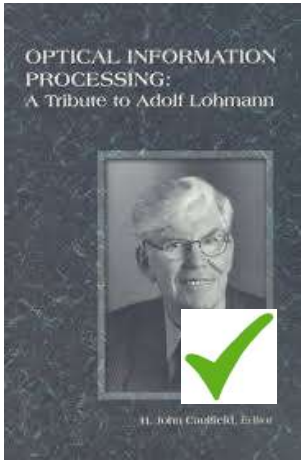
Herwig Kogelnik

Steve Benton

Hans Bjielkhagen
"Hans-Holo"

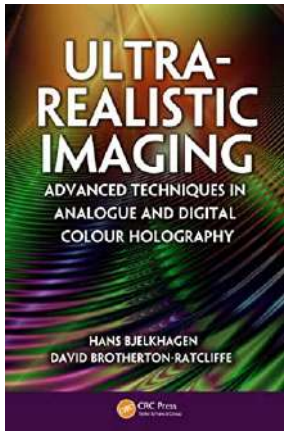
Joe Goodman

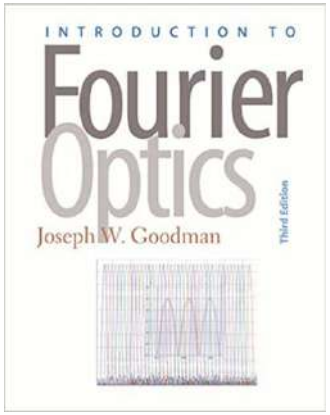
Denis Gabor (Nobel 1971)



Adolph Lohman

Moharam & Gaylord





Give talks along giants in your field.

OSA® The Optical Society | 100 Since 1916

20 October 2016:

Michio Kaku

— Futurist and theoretical physicist, City College of New York, with **Sir Peter L. Knight**, emeritus professor, Imperial College, London, OSA Fellow.

"Optics of the Future: Exploring the Universe and the Brain"
Frontiers in Optics Conference & Exhibition (FiO/LS), Rochester, New York, USA

This program also featured a special *Ignite the Future* segment where predictions of what's next in optics were be given by Nobel Prize winners, including Nicolaas Bloembergen, Robert F. Curl, Roy J. Glauber, John L. Hall, W.E. Moerner, William D. Phillips and David J. Wineland.

24 August 2016:

Susana Marcos

— Professor of Research, Instituto de Óptica, Consejo Superior Investigaciones Cientificas, Spain and OSA Fellow

"An Eye into the Future"
Latin American Optics and Photonics Conference (LAOP), Jartin Botanico, Orquideorama

26 July 2016:

Joseph Izatt

— Professor of Biomedical Engineering, Duke University, and OSA Fellow

"Lighting up the Future of Medical Imaging and Image-guided Therapy"

Bernard Kress

— Partner Optical Architect, Microsoft

"The Light Years Ahead: How Today's Promising Augmented and Virtual Reality Markets Help Shape new Optics Frontiers"
Imaging & Applied Optics Congress, Heidelberg, Germany

8 June 2016:

Ray Kurzweil

— Inventor, author, futurist, with **Steven Chu**, Nobel Laureate, former U.S. Secretary of Energy and OSA Fellow

"Business and Society in the Age of Accelerating Returns"
CLEO 2016, San Jose Convention Center, San Jose, California, USA

EOS European Optical Society — Coherence for Europe

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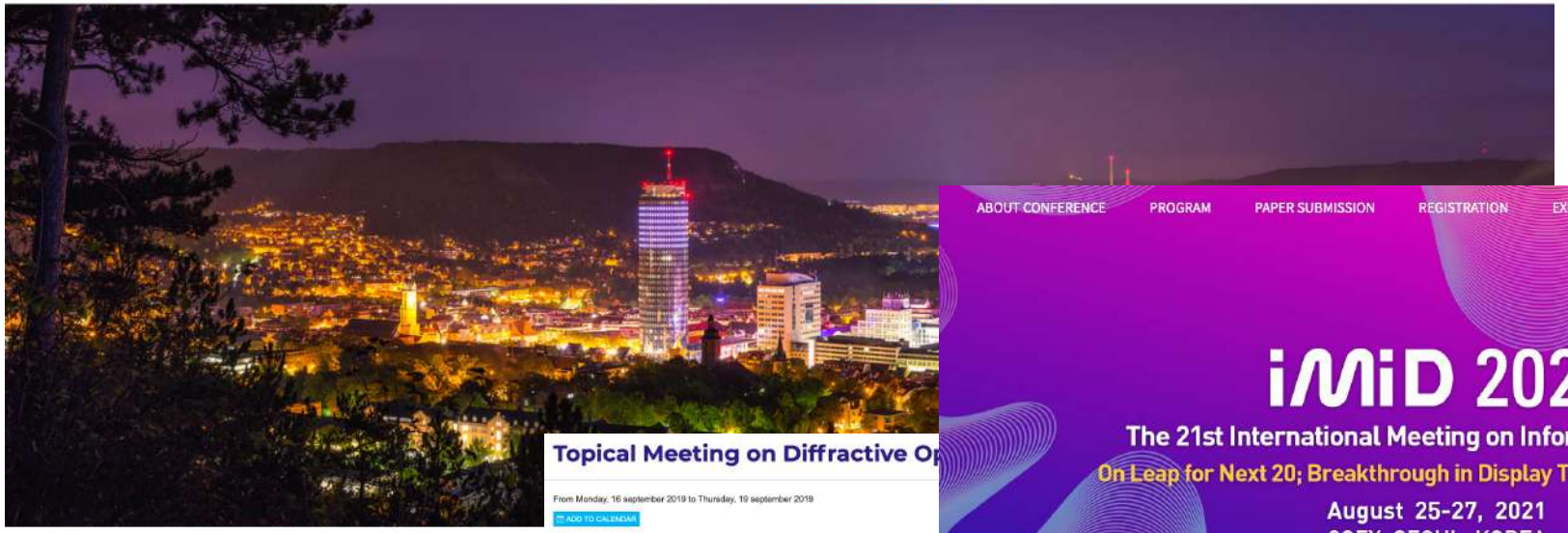


INVITED SPEAKERS

Guest of Honor and Plenary Speaker

Bernard Kress, Microsoft, USA

After 50 years in the making,
have diffractives finally captured the attention of mainstream industry?

Topical Meeting on Diffractive Op

From Monday, 16 september 2019 to Thursday, 19 september 2019

ADD TO CALENDAR

Jena, Germany

The Topical meeting has been organized by EOS since 1995, launched by the present conference ch
In 2019, the topical meeting will be held in the „City of Light" Jena, Germany, organized together with
Jena, Germany

Welcome to the Topical Meeting

The Topical meeting has been organized by EOS since 1995, launched by the present conference ch
In 2019, the topical meeting will be held in the „City of Light" Jena, Germany, organized together with

As a European center of research in optics and photonics, the close integration of Jena's two univers
progress, and as such, serves as a perfect location for this topical meeting. The success story of Jen

We look forward to welcoming to Jena, the CITY OF LIGHT!

ABOUT CONFERENCE | PROGRAM | PAPER SUBMISSION | REGISTRATION | EXHIBITION | PARTICIPATION | INFORMATION

ON/OFF-LINE Hybrid Event

iMiD 2021

The 21st International Meeting on Information Display

On Leap for Next 20; Breakthrough in Display Technology & Science

August 25-27, 2021
COEX, SEOUL, KOREA

WELCOME MESSAGE

On behalf of the organizing committee of the 21st International Meeting on Information Display (IMID 2021), I would like to sincerely appreciate your attention on the IMID 2021, which will be held at COEX in Seoul, Korea from August · · ·

KEYNOTE SPEAKERS

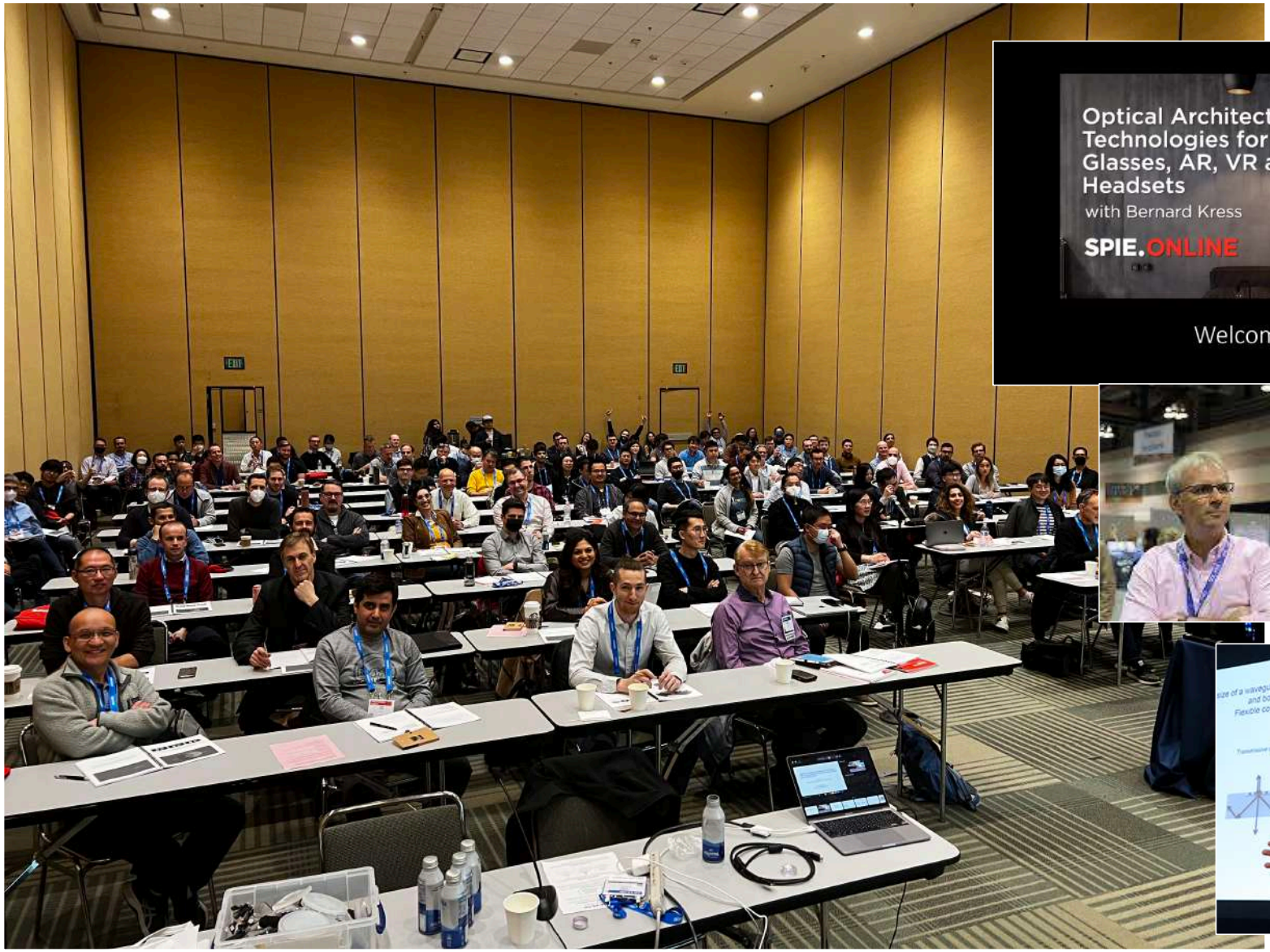
James Hoyoung Jeong
CEO
LG Display, Korea

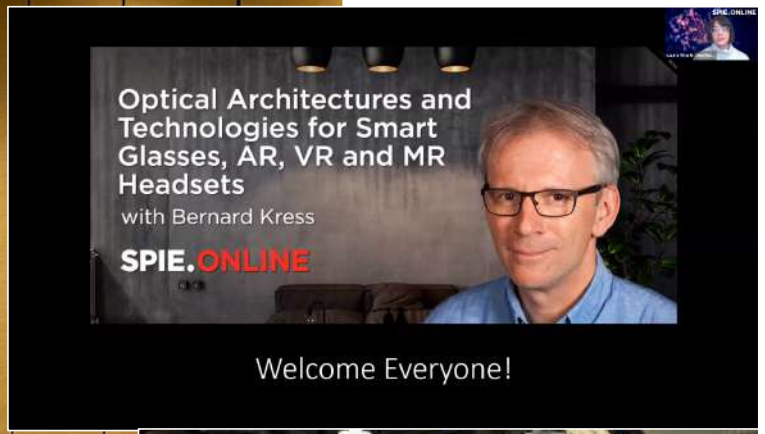
Kai Beckmann
CEO Electronics
Merck KGaA, Germany

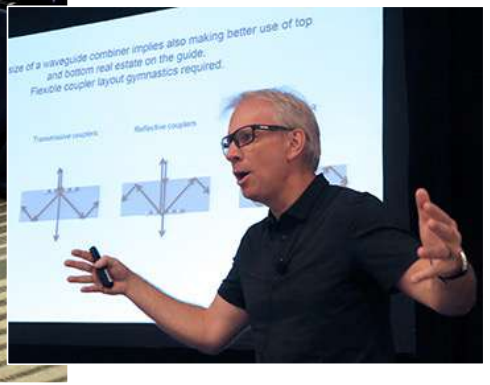
Bernard Kress
Principal Optical Architect / Vice President
Microsoft Corporation, USA / SPIE, USA


… and even become a TV star!!! …for 45 seconds…
#13WHAM
8:44 53°
GOOD DAY ROCHESTER
13WHAM
LOCAL CURRENTS
ROCHESTER 53°
BUFFALO 53°
DANSVILLE 56°
STAY CONNECTED
13WHAM.COM & 13WHAM MOBILE APPS

Become a short course instructor
(at conferences, intra-company, university,…)




Optical Architectures and Technologies for Smart Glasses, AR, VR and MR Headsets
with Bernard Kress
SPIE.ONLINE
Welcome Everyone!


size of a waveguide combiner implies also making better use of top
and bottom real estate on the guide.
Flexible coupler layout gymnastics required.

Get students excited by giving talks at your Alma Mater,… and elsewhere…

STANFORD UNIVERSITY | STANFORD TALKS

TALKS TUTORIALS SERVICES LOGIN SUPPORT ABOUT

Towards the ultimate AR/MR experience: optical hardware challenges

Bernard Kress

(Partner Optical Architect at Microsoft)

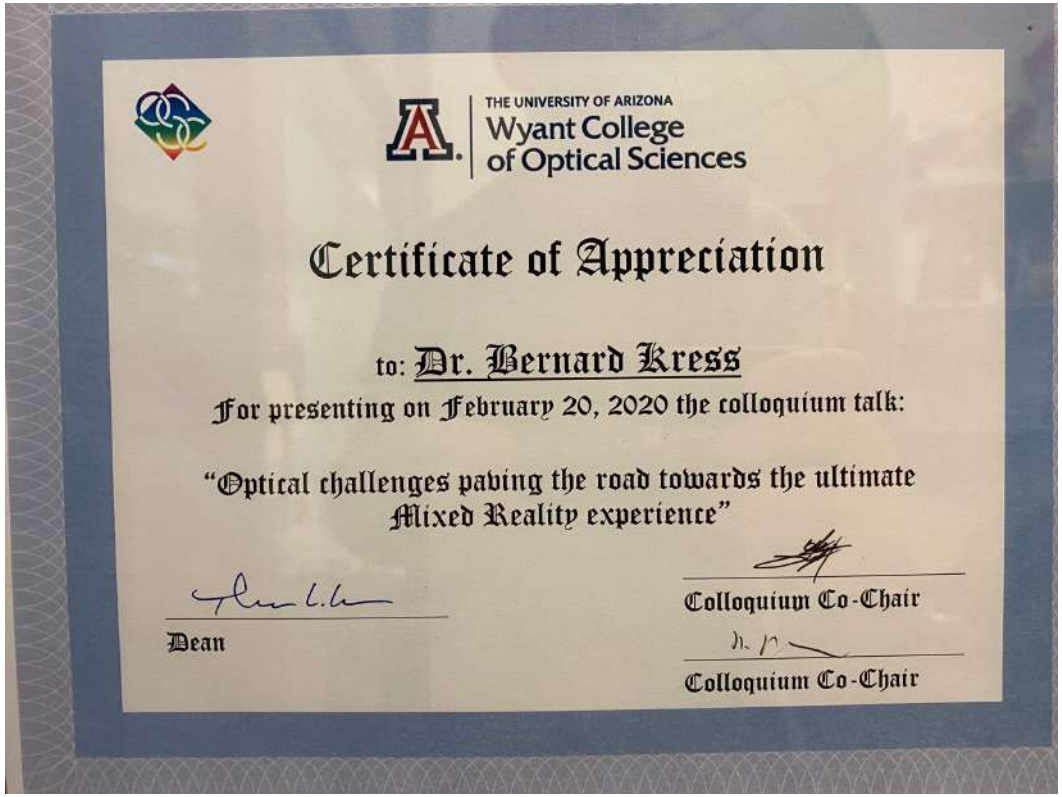
Play Video

Date: May 11, 2017

Description:

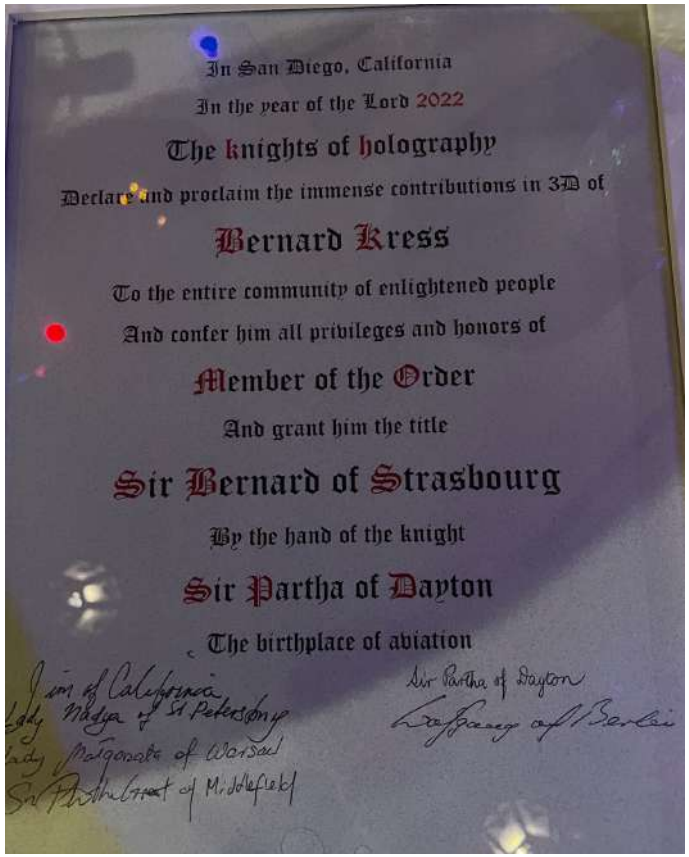
A panel discussion moderated by Bernard Kress

- Jim Dunphy, (Optics Hardware Engineering Lead at Google)
- Hong Hua (Professor at University of Arizona/ College of Optical Sciences)
- Doug Lanman (Computational Imaging Lead at Oculus Research)
- Ed Tang (Founder and CTO of Avegant)
- Gordon Wetzstein (Professor in EE at Stanford)



Get industry and potential partners excited by giving in-company talks

Become knighted in a secret scientific society!


In San Diego, California

In the year of the Lord 2022

The knights of holography

Declare and proclaim the immense contributions in 3D of

Bernard Kress

To the entire community of enlightened people

And confer him all privileges and honors of

Member of the Order

And grant him the title

Sir Bernard of Strasbourg

By the hand of the knight

Sir Partha of Dayton

The birthplace of aviation

Help nurture a community on line, especially useful during a pandemic era.

Be a community champion and create a dynamic that will help the project in the long term.

AR | VR | MR 2021 highlights

Stay up to date with the latest interviews, videos, and social-media activity

Fireside Chats

Join us for our monthly webinar with hosts Bernard Kress (Microsoft) and Christophe Peroz (SONY). Each month they interview top speakers to explore important augmented, virtual, and mixed reality topics.

The series returns in April 2021, information coming soon. View past interview recordings below.

View 2021 webinar recordings

Glass Technology for Waveguide-Based AR and MR Devices - SCHOTT
1:06:57

Fireside Chat with Avegant
1:07:11

Fireside Chat with Digilens
1:12:37

Fireside Chat with tooz technologies
1:11:15

Emerging Global Trends in IP in AR, VR, and MR Domains
1:13:30

Interview with Guido Groet, Luxexcel and Phil Greenhalgh, WaveOptics
1:12:48

Interview with Chi Xu, Nreal CEO
1:07:38

Interview with Ross Finman, Niantic
1:00:06

Interview with Phil Greenhalgh, CTO, WaveOptics
1:01:37

Laser Beam Scanning for Near-to-Eye Display panel session
1:29:38

Interview with Lucas Ginzinger, VP, Bosch Sensortec
59:18

Interview with Compound Photonics
1:02:50

Load More

A few companies which I hosted on line as SPIE Fireside Chats

Past and upcoming interviews

Snap acquires AR startup WaveOptics, which provides tech for Spectacles, for over $500M

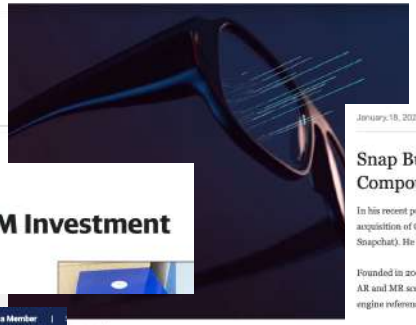
Ingrid Lunden

The Brussels Times SUBSCRIBE

For less than a cup of coffee a week

Facebook parent Meta buys Belgian-Dutch company Luxexcel

Wednesday, 28 December 2022



siliconANGLE [the voice of enterprise and emerging tech]

CLOUD AI SECURITY INFRA BLOCKCHAIN POLICY BIG DATA APPS EMERGING TECH

EMERGING TECH

Meta acquires VR and AR optics technology comp ImagineOptix

Apple

Apple buys lens manufacturer Limbak - report

Jan 03 2023 Tomislav Bezmalinovic

Bild: Lynx

Optics specialist Limbak makes lenses for headsets like Lynx-R1 and Simula One. It is now owned by a "major US company".

CISION

AR Waveguide Leader Dispelix Announces $33M Investment

November 8, 2021 · 2 min read

VentureBeat Events GamesBeat Data Pipeline Transform 2022 Become a Member

Samsung invests in DigiLens XR glasses firm at valuation over $500M

Dean Takahashi @deantak

November 4, 2021 6:00 AM

uxexcel

the parent company of American Facebook, has acquired the Belgia company Luxexcel, according to mation from Belgian newspaper D

ugh Always Be in Opposition?

gration of prescription power, a veguide, and a projector in a le lens module

January 18, 2022 - 14:57 — Bettyeu

Snap Buying Micro LED/LCOS Microdisplay Developer Compound Photonics

In his recent podcast episode, AR/VR optical expert Karl Guttag said that various sources have confirmed the acquisition of Compounds Photonics, a Micro LED/LCOS solution provider in the US, by Snap (parent company of Snapchat). He also presumed that Snap plans to adopt LCOS technology in its AR glasses.

Founded in 2007, Compound Photonics specializes in providing compact high-resolution microdisplay solutions for AR and MR scenarios. The company offers products and services including Micro LED/LCOS displays, optical engine reference designs and microdisplay development kits.

The solution provider has launched a 0.34-inch LCOS microdisplay lineup, the CP2K354, featuring 3.015µm pixels, a 2048×2048 resolution, 1:1 aspect ratio and retina resolution (60 pixels/degree) when combined with its 50° wide field-of-view waveguides.

Image credit: Compound Photonics

Is the Pandemic Accelerating or Putting a Dent into XR Adoption

Interview with Amy Hedrick, CEO, Cleanbox Technologies

Interview with Stan Larroque, CEO, Lynx

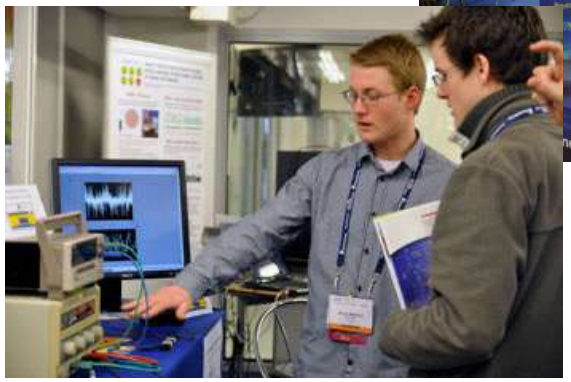
Show initiatives in creating new exciting events for students and early stage professionals to distill excitement and passion for your field.

Help define and create new and exciting events in your field

example of the photonics Innovation Village for university spin-offs and pre-venture stage start-ups

initiated in Strasbourg in 2004 and still running today!

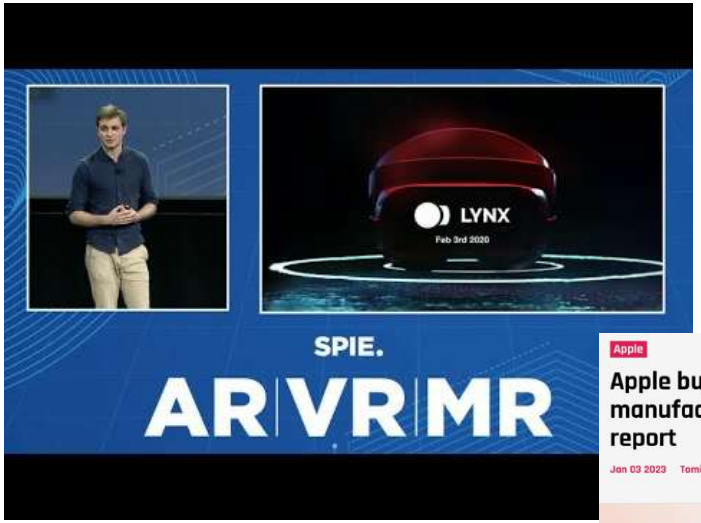
SPIE Europe



Initiate students events to provide them industry exposure :

Example of the Optical Design Challenge for AR/VR/MR (2018- 2023)

Example of a direct impact for one laureate of the 2018 SPIE AR/VR/MR ODC challenge: Stan Larroque, now CEO of Lynx VR in Paris.



Apple

Apple buys lens manufacturer Limbak - report

Jan 03 2023 Tomislav Bezmalinovic

Bild: Lynx

Optics specialist Limbak makes lenses for headsets like Lynx-R1 and Simula One. It is now owned by a "major US company".

Help organize and chair conferences in your field

SPIE.AR|VR|MR Attend Program Presenters

28 - 31 March 2021
Online Only

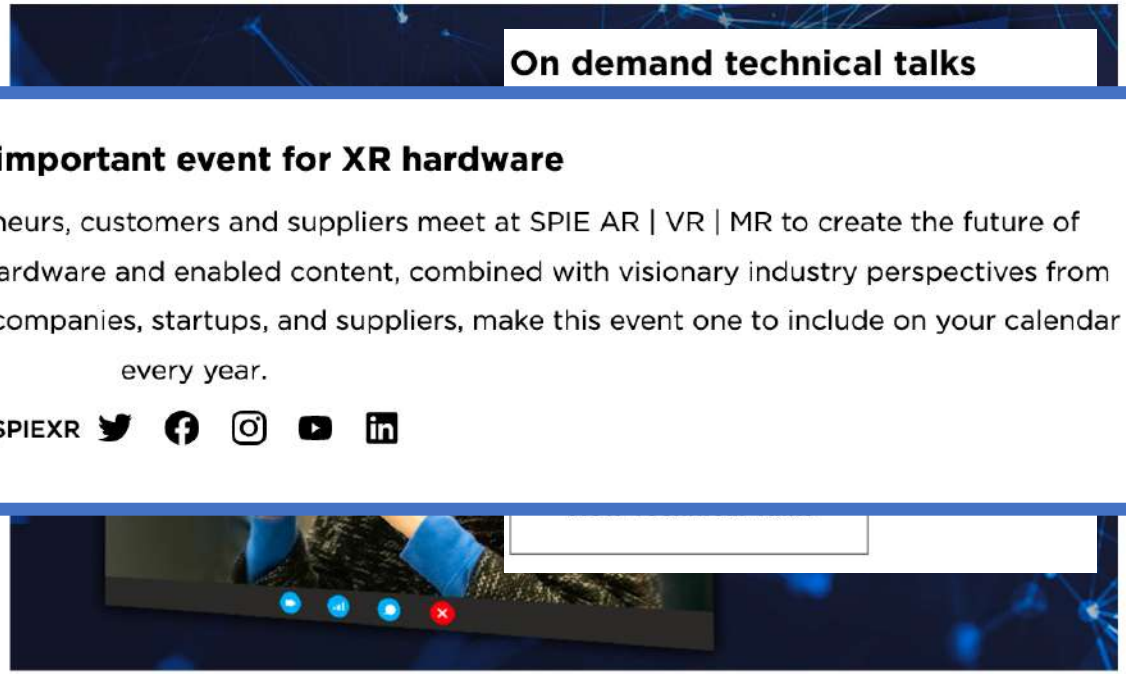
Program Home | Browse Program | Invited Talks + Sessions | Technical Talks | Courses

Participating Companies

APPLIED MATERIALS make possible · BOSCH · CLEANBOX · CREAL · CORNING · covestro · KCP DISPLAY microLED · dispelix · ESSILOR · EVG · EXALOS · facebook Reality Labs · Google · Goertek · HARVARD UNIVERSITY · HOYA · SONY · TRILITE · TruLife Optics · VARJO · VIVIDQ · WaveOptics

AR | VR | MR Digital Forum program

Enjoy invited talks, courses, special events, and technical presentations

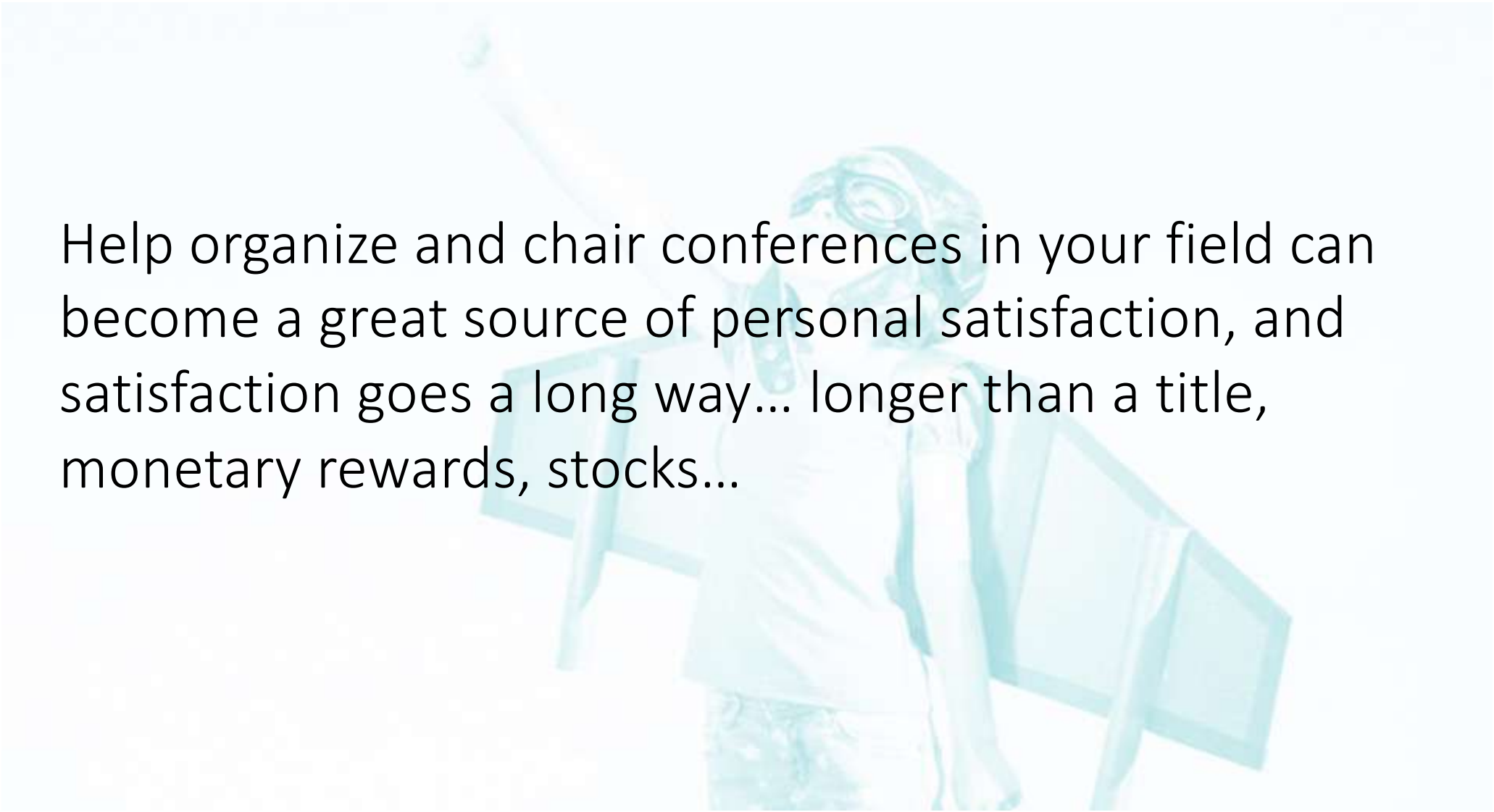


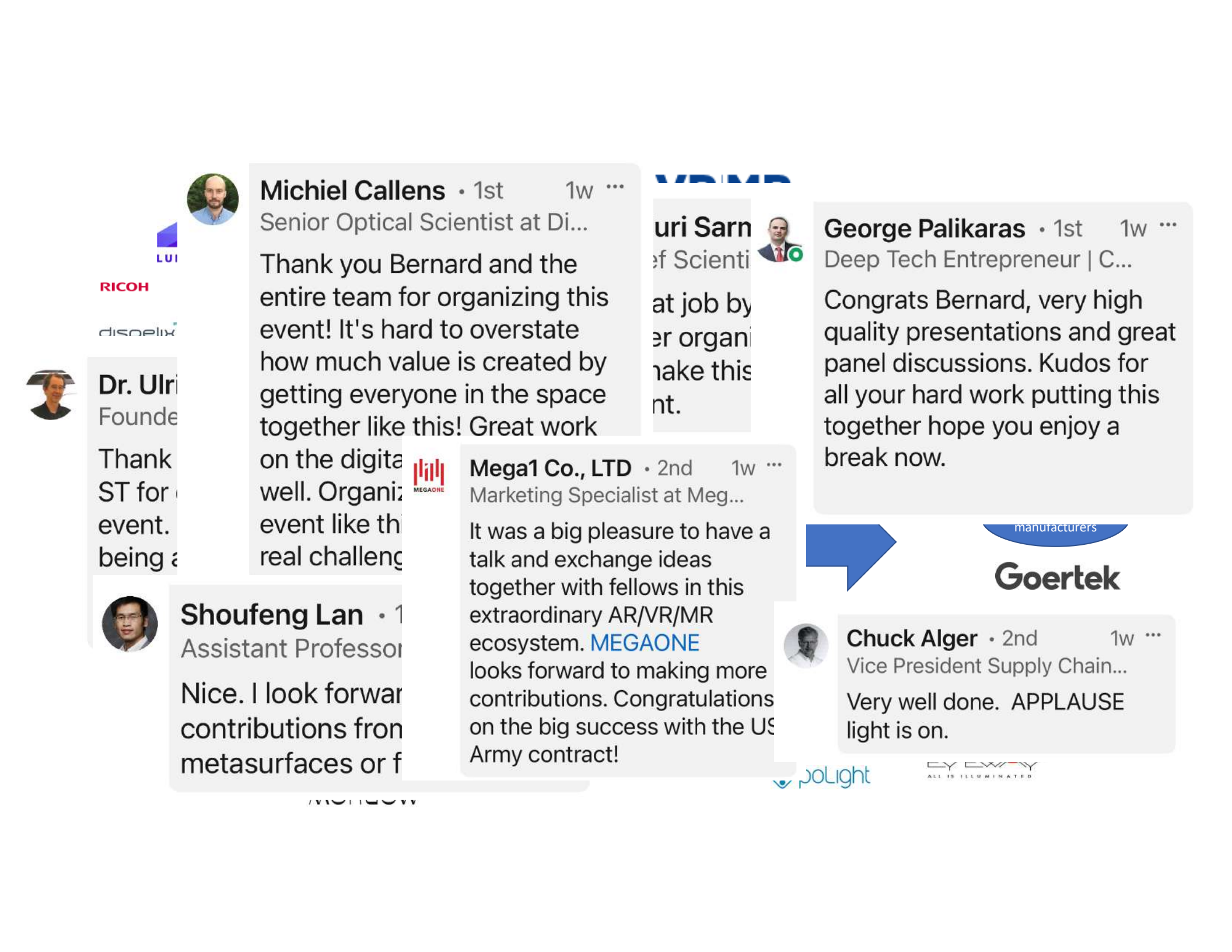
The most important event for XR hardware

Researchers and engineers, investors and entrepreneurs, customers and suppliers meet at SPIE AR | VR | MR to create the future of augmented, virtual, and mixed reality. This focus on hardware and enabled content, combined with visionary industry perspectives from technology leaders working in the largest AR-VR-MR companies, startups, and suppliers, make this event one to include on your calendar every year.

#SPIEXR

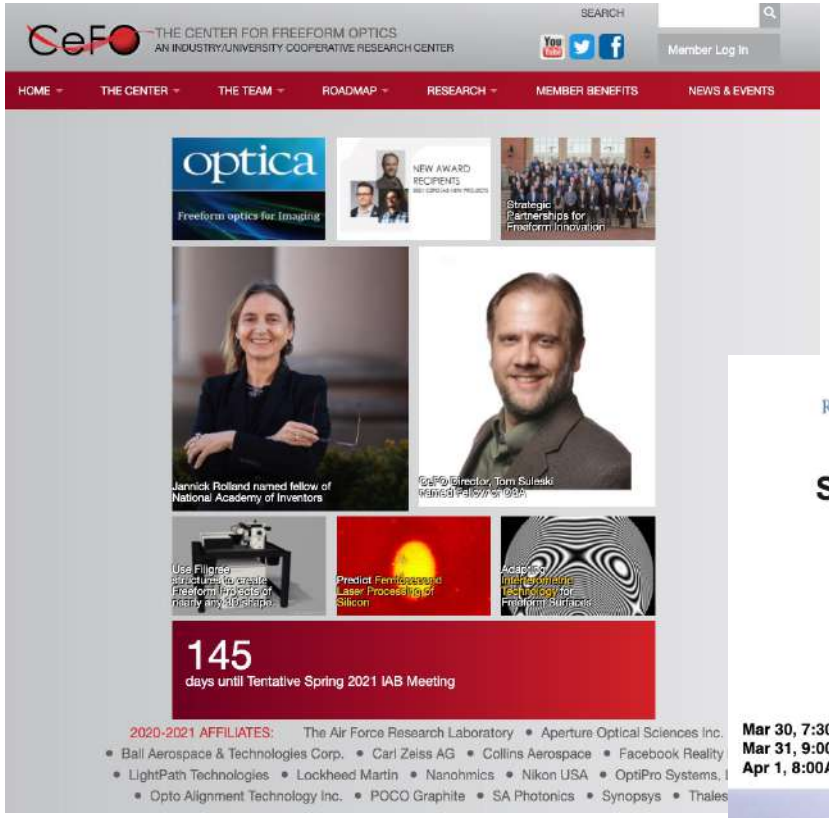
Help organize and chair conferences in your field can become a great source of personal satisfaction, and satisfaction goes a long way… longer than a title, monetary rewards, stocks…




Michiel Callens • 1st 1w
Senior Optical Scientist at Di...
Thank you Bernard and the entire team for organizing this event! It's hard to overstate how much value is created by getting everyone in the space together like this! Great work on the digita
well. Organiz
event like thi
real challeng
RICOH
Dr. Ulri
Founde
Thank
ST for
event.
being a
uri Sarn
f Scienti
at job by
er organi
nake this
nt.
George Palikaras • 1st 1w
Deep Tech Entrepreneur | C...
Congrats Bernard, very high quality presentations and great panel discussions. Kudos for all your hard work putting this together hope you enjoy a break now.
Mega1 Co., LTD • 2nd 1w
Marketing Specialist at Meg...
It was a big pleasure to have a talk and exchange ideas together with fellows in this extraordinary AR/VR/MR ecosystem. MEGAONE looks forward to making more contributions. Congratulations on the big success with the US Army contract!
Shoufeng Lan • 1
Assistant Professor
Nice. I look forwar
contributions fron
metasurfaces or f
manufacturers
Goertek
Chuck Alger • 2nd 1w
Vice President Supply Chain...
Very well done. APPLAUSE light is on.
poLight

Participate in industry affiliates and centers of excellence in optics and photonics

Join industry affiliations around specific technical topics



Help setting up international industry affiliates to boost diversity and inclusion

CICESE

ENSENADA BAJA CALIFORNIA

مجمع الشارقة للبحوث والتكنولوجيا والابتكار
Sharjah Research Technology and Innovation Park

UNIVERSITAT POLITÈCNICA DE VALÈNCIA

Monroe Community College
STATE UNIVERSITY OF NEW YORK

財經新報

Cultivate Extended Reality Talents! Yangming Jiaotong University and Google signed an academic industry alliance plan

Author Yao Huiru | Published on December 05, 2022 14:00 | Categories Google , Human Resources , Metaverse

國立臺灣大學
National Taiwan University

Yangming Jiaotong University and Google today signed the Google Academic/Industry Affiliation Program (Google Academic/Industry Affiliation Program) to jointly cultivate Extended Reality (XR) talents and industry-university cooperation research. In the future, this academic cooperation framework agreement will be used to carry out more extensive cooperation with Google close international cooperation.

Get involved in outreach activities to enable a more balanced gender representation in your field

Women in Photonics

Date: **Thursday, 28 January 2021** ● LIVE EVENT
Time: **10:30 AM - 12:00 PM PST**
Location: **Live Event**

Welcome an

Bernard Kress
Partner Optical Archi
Microsoft / Hololens

10:40 AM - Opening by the Chair, Maria Pace

Speakers

Braini &
Researcher on Brain-Computer
Interfaces + Ethical AI

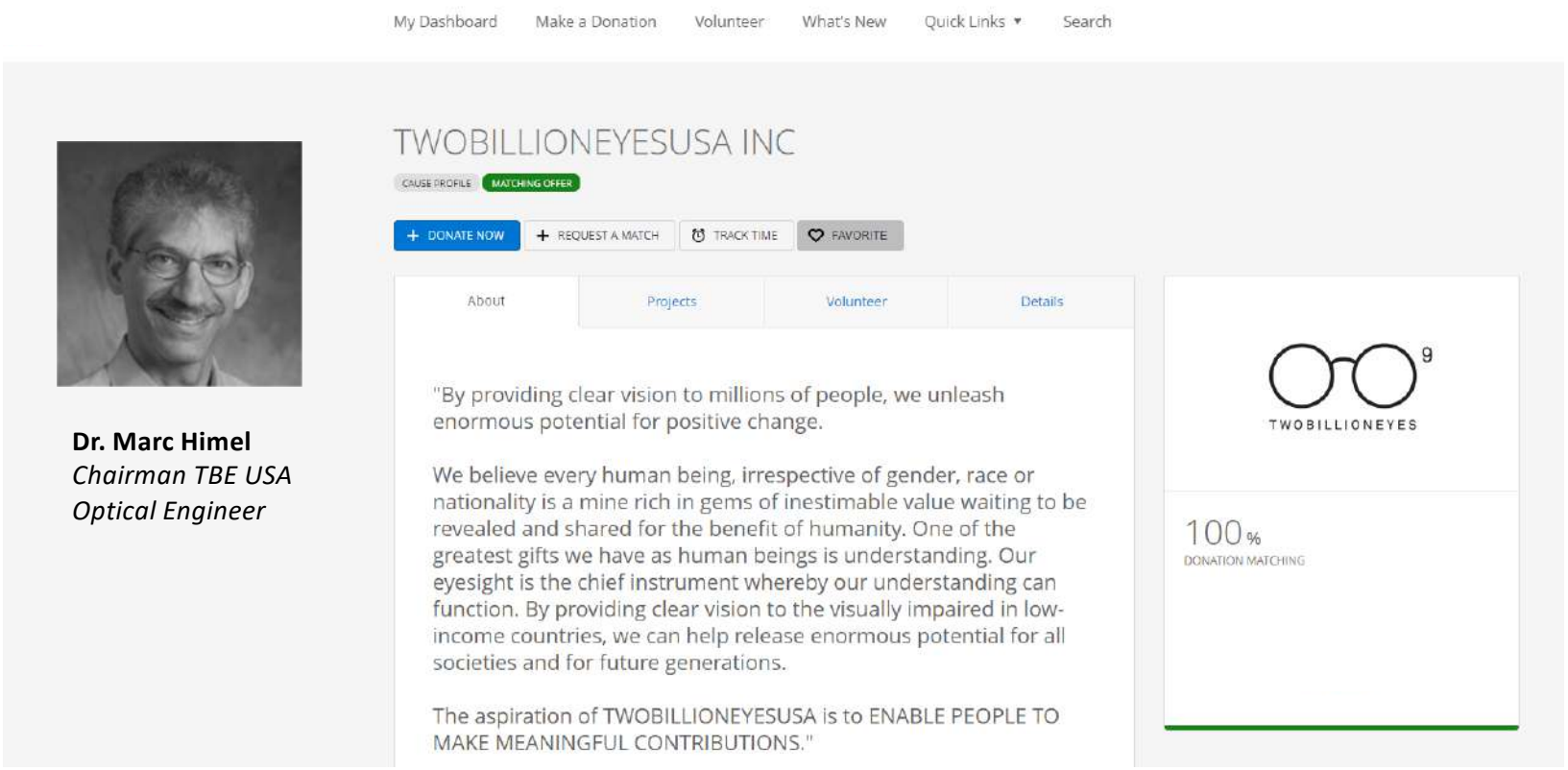
Amy Peck
General Manager and CEO
Endeavor

Caitlin (CK) Kalinowski
Hardware Director
Oculus VR

Svetlana Samoilova
CTO
NewSight Reality

Last but not least: Get actively involved in charitable donation programs in the field of optics and photonics.

Dr. Marc Himel
Chairman TBE USA
Optical Engineer



Summary

Getting involved in international scientific societies is NEVER A WASTE OF TIME. It may take some time to show rewards, but IT WILL ALWAYS SHOW REWARDS, in ways you may not think of originally.

1- Rewards for the individual to advance one's personal skills

2- Rewards for the employee to advance one's career

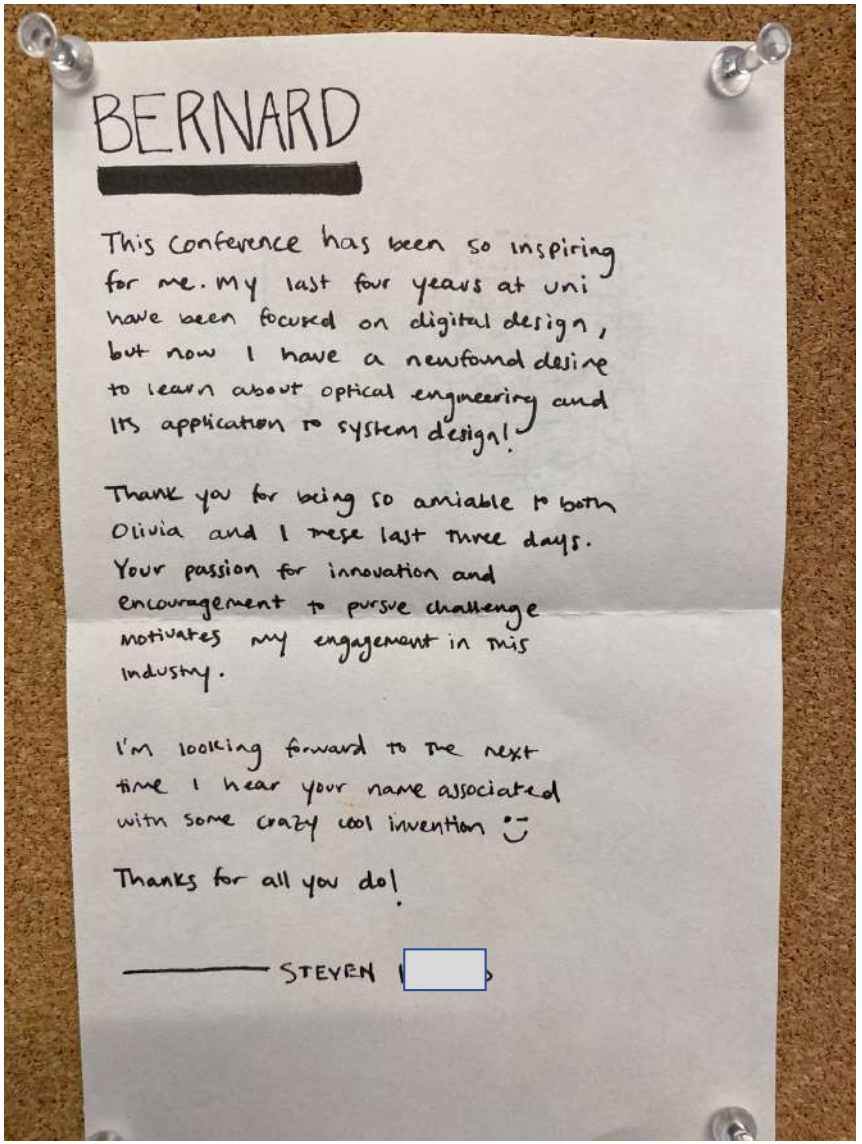
3- Rewards for the employer (company, university, research institution…)

This is a letter I received from a student after **the 2020 SPIE AR VR MR (Photonics West)** event in SF, in which he participated for the first time
as an SPIE student volunteer…

This student cultivated **the passion for a technology and the passion for volunteering in the scientific community and saw rewards of his early volunteering in many different and unexpected ways**.

Anyone can become a community champion, and as a result leverage one's personal and professional skills to further one's career.

This is what I wish **for all of you.**



BERNARD
[redacted]

This conference has been so inspiring for me. My last four years at uni have been focused on digital design, but now I have a newfound desire to learn about optical engineering and its application to system design!

Thank you for being so amiable to both Olivia and I these last three days. Your passion for innovation and encouragement to pursue challenge motivates my engagement in this industry.

I'm looking forward to the next time I hear your name associated with some crazy cool invention :-)

Thanks for all you do!

STEVEN [redacted]

Volunteering for scientific community services as an effective career boost in Optics and Photonics.

thank you

Bernard.kress@spie.org