CLARB

December 2019 Board of Directors Meeting

Agenda

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3. Annual Strategy Review

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4. Leadership Development: Implementing Governance Enhancements

   4.a (December 2019) Leadership Development.docx

5. Business

   Reframing landscape architecture – Phase 2 update and project plan
   5.a Business (December 2019) Reframing landscape architecture.docx

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   5.b (December 2019) Routine Business - Rethink Regulation.docx

   Regulation 4.0 Report from McKinley
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   Draft Minutes

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   Collateral and Intra-Professional Engagement Summary
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Committee on Audit and Finance Report

FY 2019 unaudited year-end financials

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FY 19 Unaudited Financial Report

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Q3 Investment Update

Q3 Investment Update

Committee on Examinations Report

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Leadership Advisory Council Report

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MBE Committee Report

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LAAB and LA CES Committee Appointments

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2020 Annual Meeting and 50th Anniversary Celebration

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Regional Meetings Update

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FY 2020 SOW Update

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SOW Slides

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7. Other Business

8. Adjourn
FROM: Stan Williams, President
Veronica Meadows, Senior Director of Strategy

AGENDA ITEM: 3.a.
SUBJECT: Questioning Orthodoxy

MOTION/ DESIRED OUTCOME: Deep unlearning of orthodox beliefs that limits both individual and collective learning with the future

ADDITIONAL READING? Yes ☑ No ☐

Background

As CLARB continues to navigate the disruption created by the forces of societal transformation, intentional learning is among our top priorities. One of the most important areas of learning we must pursue is "deep unlearning," the active identification, examination, and challenging of the myriad orthodox beliefs, i.e., the deep-seated assumptions we make about how the world works, that have guided the organization, our stakeholders, and landscape architecture regulation for decades. Orthodoxy can have an invisible yet profound impact that we must better understand as disruption forces us to reconsider our traditional ways of thinking and acting.

At the 2019 CLARB Annual Meeting, Jeff De Cagna, CLARB’s foresight advisor, opened the meeting with a provocative keynote session that challenged attendees to identify and question their orthodox beliefs. At the December Board meeting, Jeff will share key themes that emerged from the membership session as an input to the Board’s work to examine its own orthodox beliefs and the unlearning that will be necessary to remove these limiting beliefs.

In preparation for the session, please review the following suggested resources:
- “Thinking and Acting Beyond Orthodoxy” by Jeff De Cagna [CalSAE’s The Executive Magazine, September/October 2015 issue]
- Thinking and Acting Beyond Orthodox Online Presentation by Jeff De Cagna
STRATEGY AGENDA

CLARB Board of Directors Meeting
December 13-14, 2019
Reston, Virginia

FROM: Stan Williams, President
Veronica Meadows, Senior Director of Strategy

AGENDA ITEM: 4.a

SUBJECT: Foresight-First Strategic System Process Review

MOTION/DESIRED OUTCOME: Build capacity for stewardship through the annual strategy review and the practice of foresight

ADDITIONAL READING? Yes ☐ No ☐

Background

Over the past 10 years, the Board of Directors has invested significant time and resources in developing its strategy system to improve the focus, effectiveness and impact of the organization. As part of this system, the Board conducts an annual review of organizational priorities and adjusts its strategy considering new insights, developments and progress. This annual review provides a framework and series of processes to ensure continuous attention to current and forward-looking issues, concerns, and opportunities.

As the pace of change accelerated, the Board recognized its leadership “duty of foresight” to ensure that the organization, its members and stakeholders were prepared for and could adapt to change. This duty of foresight ensures the Board is engaged in learning with the future, and based on this continuous learning, adjusts and refines its strategic priorities. The CLARB Board has committed to the duty of foresight through its governing intent.

The Board’s foresight work has become a primary input into our strategy system. The ongoing practice of foresight is where the Board identifies and prioritizes shifts in society, the regulatory environment and the profession that will have an impact on CLARB, our members and stakeholders over a 10-year period.

This 120-month view, or timeline, includes the “strategy window,” where shifts are identified that will likely occur in the next 12-36 months that will need to be considered and responded to within our annual work plan. In the foresight horizon, shifts are identified that may plausibly occur over the next 37-120 months and learning is necessary to ensure CLARB is well equipped to anticipate, respond and adapt to thrive into the future.

Strategy Window
0-36 Months

Foresight Window
37 - 120 Months
STRATEGY AGENDA

Annual Review Process

In the spirit of continuous improvement, we’ve evolved the review process by simplifying the inputs and leveraging our increasing foresight capacity to inform how we set priorities. At our meeting, we will use the following steps in our review process:

a. **Review inputs** – learning and progress, drivers and shifts, contextual themes and our ecosystem
b. **Review** and adjust timeline (strategy window and foresight horizon)
c. **Review** and adjust governing intent, guiding principles and critical outcomes

Based on feedback from the Board’s strategy review work and the learning that has occurred over the past year, we have identified four significant “shift themes” that we believe are already and will continue to exert influence on both CLARB’s strategy window and foresight horizon:

- Digital transformation
- Future of work
- Declining trust
- Global concerns

The shift themes include items that would have been included in our environmental scan in previous years. In addition, we have identified five “context themes” that will shape the broader context in which the shift themes unfold. These themes include advocacy, diversity and inclusion, economics, inequality, and demographics.

Next Steps

CLARB’s foresight advisor, Jeff De Cagna and staff will facilitate a day-and-a-half strategy review session that will result in the identification of priorities that we will take action on through the development of the 2021 scope of work and what learning we pursue over the next year.
Annual Strategy Review: Relevant Inputs

Veronica Meadows
Senior Director of Strategy
Inputs to Strategy

- Contextual themes
- Drivers and shifts
- Progress and learning
- Ecosystem
Progress and Learning
A future-ready regulatory framework for landscape architecture in North America.

Critical Outcome #1
Learning priorities

• How will CLARB continue to evolve its role in promoting the importance of protecting the health, safety and welfare (HSW) of all human beings, communities and society through landscape architecture licensing?

• How should CLARB transform digitally (and in other ways) to reduce the unnecessary complexity and increase the beneficial impact of the landscape architecture licensing process for all stakeholders?

• How should CLARB begin to prepare for the emergence of new educational models, the continued evolution of landscape architecture practice and the acceptance of alternative paths to licensure?
How will CLARB continue to evolve its role in promoting the importance of protecting the health, safety and welfare (HSW) of all human beings, communities and society through landscape architecture licensing?

- Build new and nurture existing partnerships and alliances
  - Presidents Council
  - ICOR
  - ARPL
  - FARB

- Increase advocacy knowledge and capacity
  - Allocation of resources
  - Continuous learning

- Leverage CLARB’s leadership positioning
  - Positioning with the membership
  - Positioning with collateral orgs
How should CLARB transform digitally (and in other ways) to reduce the unnecessary complexity and increase the beneficial impact of the landscape architecture licensing process for all stakeholders?

- Rethinking regulation to reduce unnecessary friction in the licensure process.
- Exploring new technology solutions to enable CLARB to be the center of an interdependent licensure system.
- Learning focused on the potential impacts of blockchain technologies, artificial intelligence, big data and advanced computing.
How should CLARB begin to prepare for the emergence of new educational models, the continued evolution of landscape architecture practice and the acceptance of alternative paths to licensure?

• Input into the review and revisions of the LAAB accreditation standards is provided through our appointment to the LAAB Board of Directors.
• Assist in the development of tools and resources for educators and students on the licensure pipeline through new Presidents Council education group.
• Identify trends in LA practice over time using the task analysis data.
• Better understand what aspects of practice are ripe for automation, delegation or elimination.
A stakeholder ecosystem committed to meaningful collaboration to understand, anticipate and prepare for the future of professional regulation in a global context.
Learning priorities

• How will CLARB work with other ecosystem stakeholders to better understand the impact of artificial intelligence and climate change on landscape architecture practice and regulation?

• How will CLARB work with other ecosystem stakeholders to better understand the impact of artificial intelligence, blockchain and other emerging technologies on professional regulation?

• How will CLARB work with other ecosystem stakeholders to nurture and deepen a shared commitment to a consistent practice of foresight for their common benefit and for the benefit of all human beings, communities and society.
How will CLARB work with other ecosystem stakeholders to better understand the impact of climate change on landscape architecture practice and regulation?

Key contributor in Presidents Council discussions on landscape architecture practice and climate change.

Engage the Board in a mega issue discussion on CLARB’s role in influencing the practice of landscape architecture.
How will CLARB work with other ecosystem stakeholders to better understand the impact of artificial intelligence, blockchain and other emerging technologies on professional regulation?

ICOR think tank on impacts of current and emerging technologies on practice and regulation.

Following progress on Federation of State Boards of Medicine (FSMB) on blockchain pilot.
How will CLARB work with other ecosystem stakeholders to nurture and deepen a shared commitment to a consistent practice of foresight for their common benefit and for the benefit of all human beings, communities and society.

DEVELOPMENT OF FORESIGHT NETWORKS TO BUILD KNOWLEDGEBASE FOR DECISION MAKING AROUND KEY ISSUES.

INTRODUCE THE PRACTICE OF FORESIGHT WITH KEY PARTNERS, COALITIONS AND ALLIANCES.
A richer understanding of the future landscape architect and their most important contributions.

Critical Outcome #3
Learning priorities

• How can CLARB make sense of the shifting dynamics of landscape architecture talent pipeline and their larger implications for the future?

• How can CLARB participate in elevating the public’s understanding of landscape architecture and its impact on the well-being of all human beings, communities and society.

• What critical contributions can CLARB make to advancing landscape architecture’s commitment to increased diversity and inclusion in the profession?
How can CLARB make sense of the shifting dynamics of landscape architecture talent pipeline and their larger implications for the future?

Health of the profession data sharing between Presidents Council organizations

Tracking and monitoring the current North American exam pipeline and exploring options for global growth
How can CLARB participate in elevating the public’s understanding of landscape architecture and its impact on the well-being of all human beings, communities and society.

Commitment to multi-year “reframing” project with the goal of developing a robust PR tool kit

Elevating the status of the profession through strategic partnerships and alliances (ARPL, ICOR, FARB)
What critical contributions can CLARB make to advancing landscape architecture’s commitment to increased diversity and inclusion in the profession?

01
Advancing diversity and inclusion goals with an initial focus on CLARB’s internal workforce.

02
Implementing enhanced governance structure to enable greater diversity in CLARB leadership.
Contextual Themes
Influential contextual theme areas that inform decision-making

- Advocacy
- Diversity and Inclusion
- Economics
- Inequality
- Demographics
The recent midterm elections in the United States have altered the advocacy landscape for at least the next two years. As opposed to the single-party control of both the executive and legislative branches that has been in place since 2017, divided control of Congress will mean greater influence for House committees in crafting legislation, the return of conference committees on major bills and the need for negotiation and compromise to bring those bills to the floor.

In addition to control of the House of Representatives, Democrats regained control over seven governorships (IL, KS, ME, MI, NM, NV and WI), as well as 400 state legislative seats. For the first time in 104 years, only one state legislature (MN) will be under divided control. In 23 of 50 states, one party will have supermajority control of the legislature.

With the 2020 presidential campaign expected to begin in early 2019, increased political polarization following the election and perhaps greater-than-usual gridlock at the federal level, the political landscape will be challenging to navigate from an advocacy point of view for the foreseeable future.
The U.S. population will become significantly more diverse over the next 20 years, driven by the racial and ethnic diversity of Americans who are under age 35 today. As of 2015, the U.S. population ages 18-34 was 44% minority, making it the most diverse adult cohort in American history. By 2035, the white U.S. population age 37 and under will represent a 46% share of this total demographic cohort.

This highly diverse cohort of young Americans is also an essential part of the country’s working population. As of 2017, 56 million Americans ages 21-36, or about 35% of the total U.S. workforce, were working or looking for work. By 2025, this cohort will make up almost 75% of the U.S. workforce. In addition, more than one-third of all Americans ages 25-34 were college educated as of 2015, an increase from less than 30 percent for Americans of comparable age 15 years earlier.

As American society continues to become more diverse in every respect, building inclusive workforces has become a critical priority for business, government and other sectors that are seeking to attract the full range of talent they need to remain competitive in the future.
Economics

Despite strong GDP growth during 2018, the U.S. economy is expected to slow in 2019 and some economists are concerned about a possible recession in 2020. Even with low unemployment and high consumer confidence right now, the boost to the U.S. economy provided by the 2017 tax cuts is fading. Housing market weakness and uncertainty about the next economic outlook for the next two years continue to create significant stock market volatility.

Another factor influencing economic performance are U.S. tariffs against China and other nations. Although in the short term, the U.S. remains a low-tariff country, imposing additional tariffs in 2019, which the U.S. is set to do, could increase the nation’s overall tariff rate significantly. A related concern is the possible U.S. withdrawal from the World Trade Organization, which would leave the US free to increase tariffs without the constraints of existing trade agreements that determine those rates.

More broadly, both the U.K. and the U.S. are shifting their economic policies away from support of globalization and toward greater economic nationalism. The pending Brexit deal faces uncertain prospects for approval by the British Parliament. Continuing financial challenges within several EU nations are creating a populist backlash against globalization in some parts of Europe. Meanwhile, China is set to become the world’s largest economy by 2030.
Inequality

• Income inequality is getting worse in the U.S., with the top 1% of families making more than 25 times what families in the 99% did in 2015. This inequality has increased since the end of the recent economic decline and affects every part of the country, not just major cities. Meanwhile, about 18% of the U.S. population lives in poverty.

• Gender inequality persists in the U.S. Women continue to suffer from pay discrimination relative to their male counterparts, and the “Me Too” and “Time’s Up” movements have revealed the extent to which women (and some men) throughout American society have experienced sexual harassment or assault. The results of the recent midterm elections, in which a record number of female candidates ran for office and more than 100 women were elected to serve in the House of Representatives (also a record), are a positive development for greater gender equality.

• Educational inequality also is a serious threat to the future American workforce. Whether it is unequal access to funding, teachers and learning resources in our public schools or the inability of some Americans to afford higher education, this form of inequality in the U.S. is compromising the nation’s ability to contribute to the technology-enabled global economy of the future.
Demographics

• The current world population is 7.7 billion and is expected to reach 8.6 billion in 2030 and 9.8 billion in 2050. Between now and 2050, half of the world’s population growth will be concentrated in nine countries: India, Nigeria, the Congo, Pakistan, Ethiopia, Tanzania, the U.S., Uganda and Indonesia. (The countries are listed in order of their expected contribution to global growth.)

• Aging is a potent force. In the United States, 10,000 people reach age 65 every day, and by the 2020, there will be more people on Earth over the age of 65 than under the age of 5. In addition to the U.S., Canada, the European nations, Russia, China, Japan, Australia and Brazil will experience the most significant aging of their populations over the next 30 years.

• In 2019, there will be 73 million Americans between the ages 20-35 compared to 72 million Americans ages 52-70. This younger cohort is expected to continue growing until 2036 through immigration. For the first time since the late 19th century, young Americans are more likely to be living with their parents, and less likely to have a spouse, own a home or be parents than their predecessors when they were the same age.
Drivers and Shifts
Drivers and big shifts that will impact CLARB and member boards

- Digital transformation
- Future of work
- Declining trust
- Global concerns
Digital Transformation

CLARB should understand the unintended consequences of society’s increased use of technology.

CLARB should collaborate with other stakeholders to define digital transformation for professional licensure.

CLARB should advocate for the regulation of technology-enabled practice in landscape architecture.

CLARB should use Rethink Regulation initiative to create a future-ready regulatory framework.
Successful automation of licensed professionals’ work and more!

In November 2018, the World Economic Forum reported on the results of a challenge involving a group of 20 experienced in-house and firm-based corporate lawyers and an AI-powered algorithm. The task was to review risks in five non-disclosure agreements (NDAs). The AI matched the top-performing lawyer for accuracy (both achieved 94%), while needing just 26 seconds to review all five documents compared to the human lawyers’ average review time of 92 minutes. In July 2019, DeepMind (part of Alphabet) reported that, in collaboration with experts from the US Department of Veterans Affairs, the company has developed AI technology that could predict acute kidney injury two days before it happens.
Social forces drive blockchain adoption

According Alison McCauley, author of *Unblocked: How Blockchains Will Change Your Business (And What to do About It)*, argues that social forces, specifically the concentration of power in the hands of a few tech giants and the lack of online trust, could drive blockchain adoption. As she writes in this blog post, “In this moment of increasing discontent, we’re entering the dawn of the blockchain era. While we are still in the very early days, pioneers—both in the enterprise and in blockchain-first startups—are looking to leverage the technology to address this shortcoming in trust. Blockchains show potential to address key concerns of our digitally driven lives, such as a lack of transparency, accountability, verifiable identity, and control of data.”
In an October 2019 article, Paris Martineau of WIRED explores how cities are dealing with the complex discrimination, privacy and security issues related to facial recognition software. San Francisco and Oakland are among the cities that have banned (or are considering other regulations on) the use of facial recognition by government agencies. The city of Portland, Oregon recently delayed further consideration (until January 2020) of a broader ban that would limit the use of these technologies by businesses as well. Meanwhile, New York City is considering legislation that would require businesses and landlords to disclose their use of facial recognition technologies.
Reflection Questions

• What immediate connections can CLARB make between these items and Rethink Regulation?
• What short-term questions do these items raise for CLARB and its stakeholders?
• How should CLARB seek to create new stakeholder value relative to these items?
Internet of Things (IoT) in the built environment

In August 2018, IoT Analytics *forecasted* the number of active IoT devices to grow from 7 billion in 2018 to 10 billion by 2020 and 22 billion by 2025. Leading Edge Design Group released a *white paper* [PDF] in June 2018 titled “How the Internet of Things (IoT) is Transforming the Built Environment,” in which it defined IoT “as a network of everyday items with embedded computers that can connect directly or indirectly to the internet.”
In March 2019, guest speaker Randy Deutsch told the CLARB Board of Directors that “the future of the landscape architecture profession will be dominated by high quality, automated, readily available remote sense information.” In addition, Deutsch described “computational landscaping” as “using computing and machine to allow for the creation of evolving and changing ecosystems by feeding computers data from natural historical records.” He argued that “landscapes will be designed, built and managed in the future by both humans and smart applications” and that most of the landscape architect’s tasks are likely to be automated, including tasks associated with health, safety and welfare (HSW).
Increased focus on digital transformation

In a May 2018 post, ZDNet defined digital transformation as “using digital technologies to remake a process to become more efficient or effective. The idea is to use technology not just to replicate an existing service in a digital form, but to transform that service into something significantly better.” IDC forecasted in November 2018 that spending on technologies and services that enable digital transformation of businesses, including IoT, artificial intelligence, cloud, 3D printing, 5G, automation and edge computing, will reach nearly $2 trillion worldwide in 2022.
Risks to cybersecurity will continue to mount, driven by the rise in cyberwarfare activities by governments, expansion of the Internet of Things (IoT) and the growing sophistication of global criminal data theft. Employees are both concerned about their own digital privacy and security in the workplace, and tired of the difficulty and complexity of maintaining system security for their employers. Cybersecurity increasingly will be unmanageable by humans, requiring automation to detect and self-heal systemic risks. [This item is based on ASAE ForesightWorks research.]
Writing for the Axios Future newsletter in November 2019, Kaveh Waddell argues, “Zealous marketing departments, capital-hungry startup founders and overeager reporters are casting the futuristic sheen of artificial intelligence over many products that are actually driven by simple statistics — or hidden people.” As Waddell suggests, “[t]his "AI washing" threatens to overinflate expectations for the technology, undermining public trust and potentially setting up the booming field for a backlash.” AI researcher Filip Piekniewski, who has suggested the possibility of another AI winter, echoes these concerns in a recent blog post in which he writes, “[t]he whole field of AI resembles a giant collective of wizards of Oz. A lot of effort is put in to convincing gullible public that AI is magic, where in fact it is really just a bunch of smoke and mirrors.”
In October 2019, Google announced that it had achieved so-called “quantum supremacy,” a milestone that “refers to the first use of a quantum computer to make a calculation much faster than we know how to do it with even the fastest supercomputers available.” (IBM has publicly challenged Google’s claim.) Although the full transformative impact of quantum computing is likely still decades in the future, its potential applications include pharmaceutical companies developing extremely complex compounds for medicine, financial modeling for market trends and, of greater concern, cracking current encryption standards with unprecedented amounts of computational power.
Reflection Questions

• Which among these items creates the most significant long-term questions for CLARB and its stakeholders?

• How do these items challenge LA regulators to think differently about what they regulate and how?

• What questions do these items raise for the selection of future directors to serve on the CLARB Board?
CLARB should understand the human and ethical implications of the future of work.

CLARB should partner with other stakeholders to make professional licensure central to the future of work.

CLARB should advocate for the responsible integration of human and machine intelligences in LA licensure.

CLARB should use its Rethink Regulation initiative to encourage greater experimentation among LA regulators.
Kevin Roose, covering the World Economic Forum for *The New York Times* in January 2019, describes a dichotomy between corporate executives’ public comments on automation and their private conversations. Roose writes, “[t]hey’ll never admit it in public, but many of your bosses want machines to replace you as soon as possible.” When participating in panel sessions, Roose writes executives “talk about the need to provide a safety net for people who lose their jobs as a result of automation.” In private meetings, however, “these executives tell a different story: They are racing to automate their own work forces to stay ahead of the competition, with little regard for the impact on workers.” In addition, a November 2019 report from the Brookings Institution argues that “workers with graduate or professional degrees will be almost four times as exposed to AI as workers with just a high school degree. Holders of bachelor’s degrees will be the most exposed by education level, more than five times as exposed to AI than workers with just a high school degree.”
Reworking career pathways

The idea that people’s professional lives are fully settled in their twenties is outmoded today. Although employers and life structures have been slow to adapt to this fact, more organizations are assisting employees with their work and life transitions, including the return to school, enhancing skills for new career directions and reducing hours to make it possible for employees pursue other interests. These shifts create a need to rethink work, education and social safety nets to accommodate new approaches. [This item is based on ASAE ForesightWorks research.]
Standards under pressure

Standard setting will be marked by more conflict. Internationally, more countries are using standards to advance competitiveness or dominance via standards. Within countries, social issues are playing out in standards, making them more political in a polarized era. Associations will have to deal with the perception that some professional standards and certifications are put in place to reduce competition in a field, and are thus serving as impediments to social mobility and the reduction of inequality. More industry standards will be scrutinized from this perspective. [This item is from ASAE ForesightWorks research.]
Reflection Questions

• What immediate connections can CLARB make between these items and Rethink Regulation?
• What short-term questions do these items raise for CLARB and its stakeholders?
• How should CLARB seek to create new stakeholder value relative to these items?
A more inclusive view of diversity and inclusion

American society and workplaces will continue to grow more diverse and inclusive as values evolve and under 40 cohorts increase their share in the demographic mix. This will occur against a backdrop of social, political, and racial polarization—and the workplace will be a primary arena in which contending views collide and issues are worked out. An often-overlooked area of diversity is disability and changing attitudes and technological interventions are shifting the nature of disability and blurring its boundaries. Gaining ground is the concept that disability and ability are not a binary but instead a spectrum, with every individual’s physical, behavioral, and cognitive traits falling on multiple points along that spectrum. [This item is based on ASAE ForesightWorks research.]
New forms of work

Freelance, “gig,” contract and temporary work and the online platforms and reputation systems required to support them are growing. For example, McKinsey Global Institute reported in June 2015 that the online talent platforms could add 2% ($2.7 trillion) to global GDP by 2025. In October 2017, a study conducted by Upwork and the Freelancers Union estimated that 57 million Americans are freelancers, a number that could grow to nearly 87 million by 2027 and would make freelancers the majority of the U.S. workforce. [This item is based on ASAE ForesightWorks research and supplemental inquiry.]
Reputation by the numbers

Vast amounts of data will support reputation systems, and reputation will increasingly eclipse credentials for landing a job. As worker reputation systems and human resources analytics grow, assessment of an individual’s suitability for a job will be driven by a person’s algorithmic match to needs. New reputation analytics may erode current credentials, both educational and professional. For example, degrees from traditional accredited institutions with strong brand names may carry no more weight than degrees earned via massive open online courses (MOOCs) or other alternative formats.

[This item is based on ASAE ForesightWorks research.]
A different future of work may create two tiers of workers: critical contributors who create unique value, and others who handle basic tasks. Lower-tier workers might bring comparable educational backgrounds and skills as their upper-tier counterparts and yet still be regarded as disposable by employers, receiving lower pay and management by algorithm as ride-sharing drivers are today. While such a two-tiered workforce is not assured, it is a plausible unintended consequence of the deeper forces reshaping work. [This item is based on ASAE ForesightWorks research.]
In January 2017, Rob Girling, co-founder of Artefact, a design and innovation consultancy, published a post for O’Reilly on how designers should prepare for 2025 in which he argues that as AI becomes more pervasive, “[t]he implication for designers is that more than just the traditional creative occupations will be trained to use ‘design thinking’ techniques to do their work. Designers will no longer hold a monopoly (if that were ever true) on being the most ‘creative’ people in the room. To stay competitive, more designers will need additional knowledge and expertise to contribute in multidisciplinary contexts, perhaps leading to increasingly exotic specializations.”
Human-machine cooperation

Though many forecasts include substantial job losses due to automation—and such losses are indeed already occurring—many jobs will rely on cooperation between humans and machines. While less disruptive than total automation, human-machine cooperation will be a massive shift, with entire work processes becoming machine-oriented and humans learning to complement automation’s role. Over the next few years, more and more workers will need to modify their skills to collaborate with and/or manage smart machines. [This item is from ASAE ForesightWorks research.]
Reflection Questions

• Which among these items creates the most significant long-term questions for CLARB and its stakeholders?

• How do these items challenge LA regulators to think differently about what they regulate and how?

• What questions do these items raise for the selection of future directors to serve on the CLARB Board?
Declining Trust

CLARB should explore the deeper societal factors that have led to declining trust.

CLARB should partner with other stakeholders to nurture greater public trust in licensure.

CLARB should advocate for measures that build trust and confidence in landscape architecture licensure.

CLARB should use its Rethink Regulation initiative to challenge current assumptions that undermine trust.
The danger of deepfakes

In an October 2019 post, Grace Shao of CNBC writes about “deepfakes,” which are “manipulated videos, or other digital representations produced by sophisticated artificial intelligence, that yield fabricated images and sounds that appear to be real.” The term is a combination of “deep learning” and “fake,” since deepfakes are created by a specific type of deep learning AI known as generative adversarial networks (GANs). GANs are a creative breakthrough for AI, and yet their application to producing deepfake audio, images, text, and video is creating huge trust concerns that are sure to grow in intensity as the US enters a presidential election year in 2020. (Here is a contrarian view on the danger of deepfakes.)
There is greater public skepticism toward credentialed experts and, in some contexts, expert pronouncements may exert less influence on the public’s thinking and behavior. More people are seeking guidance and information from informal, unofficial and often unverified sources that match up with their personal attitudes and preferences. An overabundance of and easy accessibility to information, as well as increasingly fragmented human attention, may diminish the ability of qualified experts to shape conversations on critical issues. [This item is based on ASAE ForesightWorks research.]
The splintered society

Americans are self-segregating along multiple divides, both online and offline: politics, economic status, educational attainment, social life, consumer spending, media choices and geography. The country’s deep political polarization creates further division and reduces trust across our society, a condition that may continue to deteriorate as more issues, including those beyond politics, take on partisan dimensions. 

(This item is based on ASAE ForesightWorks research.)
Reflection Questions

• What immediate connections can CLARB make between these items and Rethink Regulation?
• What short-term questions do these items raise for CLARB and its stakeholders?
• How should CLARB seek to create new stakeholder value relative to these items?
In an October 2019 article titled, “‘OK Boomer’ Marks the End of Friendly Generational Relations” in The New York Times, Taylor Lorenz writes, “‘Ok boomer’ has become Generation Z’s endlessly repeated retort to the problem of older people who just don’t get it, a rallying cry for millions of fed up kids. Teenagers use it to reply...to basically any person over 30 who says something condescending about young people — and the issues that matter to them.” The divisive assumption-making comes with the use of generational labels and language continues to erode trust between and among all cohorts.
Trust questions for algorithms

According to a November 2018 Pew Research Center report, 58% of all Americans believe algorithms will always reflect the biases of their designers, while 50% of 18-29-year-olds believe it is possible for algorithms to make decisions free from human bias. Dr. Hannah Fry, author of Hello World: How to Be Human in the Age of the Machine, argues, “[algorithms have] the capacity for enormous social good...Unless we know when to trust our own instincts over the output of a piece of software, however, it also brings the potential for disruption, injustice and unfairness. If we permit flawed machines to make life-changing decisions on our behalf...we [must] think carefully about what happens when things go wrong.”
Global trust in social media is at 41 percent according to the 2018 Edelman Trust Barometer Global Report. The results of a July 2019 Pew Research Center study reveal that “[a] sizable majority of U.S. adults (66%) say social media companies have a responsibility to remove offensive content from their platforms, but just 31% have a great deal or fair amount of confidence in these companies to determine what offensive content should be removed.” Another Pew study from October 2019 shows most respondents believe “social media companies have too much control over the news on their sites, and that the role social media companies play in delivering the news on their sites results in a worse mix of news for users.”
Continued tech giant misbehavior

Major technology companies, including Amazon, Apple, Google, Facebook and Tesla, continue to receive heightened scrutiny for a wide variety of disquieting business practices and decisions, as well as the conduct of their most senior executives. These developments are creating significant trust issues with customers. In a post about a July 2019 report, Pew Research Center wrote, “[f]our years ago, technology companies were widely seen as having a positive impact on the United States. But the share of Americans who hold this view has tumbled 21 percentage points since then, from 71% to 50%.”
In the United States, there is a growing movement among technologists and consumers to give individuals more control over data about themselves. This idea may prove a challenge to existing industry business models, as free consumer data is the lifeblood of many popular online services and programs, particularly mobile applications. User concerns about data privacy could drive behavior changes and product innovations, including interest in products in which user data capture is temporary. The question of who owns consumer data could escalate as connected devices, e.g., the Internet of Things, proliferate and collect more consumer data, often without user knowledge or approval. [This Item is based on ASAE ForesightWorks research.]
As Cary Funk *writes* in *Issues in Science and Technology*, “[t]he scientific enterprise is complex and so, too, is public opinion about science. The notion of trust itself has multiple dimensions. Public trust in scientists encompasses expectations about scientists’ actions, trust in scientists to be honest brokers of information, trust in scientific expertise and understanding, and trust in the motivations and influences operating on science research. Viewed through that lens, levels of public trust in science are quite varied, particularly across scientific domains.” *Questions* about research reproducibility and *disparities in scientific literacy* also exert some influence on the public’s level of trust in science.
Reflection Questions

• Which among these items creates the most significant long-term questions for CLARB and its stakeholders?

• How do these items challenge LA regulators to think differently about what they regulate and how?

• What questions do these items raise for the selection of future directors to serve on the CLARB Board?
Global Concerns

CLARB should understand the larger global context and the influence it exerts on other conversations.

CLARB should collaborate with other LA stakeholders to strengthen the LA profession’s global HSW impact.

CLARB should advocate for increased global cooperation on a future-ready LA regulatory framework.

CLARB should use its Rethink Regulation initiative to situate North American LA licensure in a global context.
The climate change conversation is increasingly shifting away from big global agreements toward practical actions at the state, provincial, and local levels. A variety of solutions will be tried, and constituencies will form around preferred, sometimes competing, approaches. Young people worldwide, many inspired by Greta Thunberg and other courageous climate activists, are now important actors in both the political and cultural arenas surrounding climate issues, as they bring new perspectives, skepticism about conventional wisdom (direct link to video) and a heightened sense of urgency. Meanwhile, the share of Americans who believe that climate change will pose a serious threat to themselves or their way of life within their lifetimes nearly doubled (from 25% to 45%) between 1997 and 2018. [This item is drawn from ASAE ForesightWorks research and supplemental inquiry.]
LA knowledge is unevenly distributed globally

University of Pennsylvania professor Richard Weller argued in September 2018, “[w]hilst the profession and academy of landscape architecture has flourished over the course of the 20th and early 21st century, the map reveals the extremely uneven geographic distribution of landscape architectural education and a disconnection between where landscape architecture is taught, and where, from a biodiversity perspective, it is arguably needed most.” [This item via IFLA News Issue 82/scroll down to “2) Knowledge” to view map.]
The dawn of the Asian century

In an article in *The Financial Times* in March 2019, Valentina Romei and John Reed argue that the Asian Century will begin in 2020 when the Asian economies will be larger than the rest of the world combined, for the first time since the 19th century. As the author’s point out, Asia accounted for just over a third of world output in 2000. Asia is already home to more than half the world’s population, including 21 of the world’s 30 largest cities.
Reflection Questions

• What immediate connections can CLARB make between these items and Rethink Regulation?
• What short-term questions do these items raise for CLARB and its stakeholders?
• How should CLARB seek to create new stakeholder value relative to these items?
The global rise of authoritarianism

Around the world, political parties and officeholders using nativist and populist rhetoric and advocating for antidemocratic and authoritarian policies are gaining traction. In Europe, authoritarian governments are in charge in Hungary and Poland, extreme right-wing governments hold power in Austria and Italy and parties with similar beliefs exert considerable influence in the Netherlands, France and Germany. Outside Europe, authoritarians hold power in China, Egypt, the Philippines, Russia, Turkey, Venezuela and, as of January 2019, in Brazil, the world’s fourth largest democracy.
Global economic inequality

As reported in *The Guardian* in January 2019, “…the 26 richest billionaires own as many assets as the 3.8 billion people who make up the poorest half of the planet’s population.” This dichotomy is disquieting, and yet the Brookings Institution reported in May 2019 that “over the last 25 years, total global inequality (inequality across all individuals in the world) declined for the first time since the Industrial Revolution.” Nevertheless, in the US, there has been intensifying public scrutiny of the super-wealthy, including some discussion of abolishing billionaires entirely.
The daily stream of bad news tends to obscure the improvements happening all around us. As Dylan Matthews *writes* on Vox in October 2018, “[u]nder the radar, some aspects of life on Earth are getting dramatically better. Extreme poverty has fallen by half since 1990, and life expectancy is increasing in poor countries — and there are many more indices of improvement like that everywhere you turn.” The article shares 23 charts showing, in addition to the positive developments mentioned above, declines in hunger, child mortality and smoking and increases in leisure time, literacy and internet access.
In an October 2019 post for the World Economic Forum, Leanne Kemp, chief executive officer for Everledger, presents a 2030 future on the circular economy. She writes, “I’m looking forward to 2030. In my vision, we’ll share an economy that is restorative and regenerative, that preserves ecosystems and increases their return over time, that creates prosperity, and that fuels growth by capturing more value from existing infrastructure and products.” In this imagined future, Kemp writes, “…nobody talks about the circular economy; it’s just the economy.”
The global AI “arms race”

As nations pursue a share of what PwC estimates could be a $15.7 trillion GDP gain from AI by 2030, there are growing concerns about an unfolding “AI arms race” primarily between the US and China. (In this context, the term “arms race” applies to supremacy in both commercial and military AI applications.) While other nations, including Canada, Germany, Japan, Russia and the UAE, are emerging important players in AI, China is moving forward on its national AI strategy (even as the US has fallen behind) with the intention of becoming the world’s AI leader by 2030.
The global water crisis

According to the report issued in March 2018 by the High Level Panel on Water convened by the United Nations and the World Bank, “about 2.5 billion people (36% of the world’s population) live in water-scarce regions where more than 20% of global GDP is produced. By 2050, more than half of the world’s population—and about half of global grain production—will be at risk due to water stress. Intense water scarcity may displace as many as 700 million people by 2030.” [Watch the panel’s “galvanizing” video.]
Reflection Questions

• Which among these items creates the most significant long-term questions for CLARB and its stakeholders?

• How do these items challenge LA regulators to think differently about what they regulate and how?

• What questions do these items raise for the selection of future directors to serve on the CLARB Board?
CLARB’s Ecosystem
The Regulatory Community

- The Federation of Associations of Regulatory Boards - FARB
- Professional Licensure Coalition – PLC
- Alliance for Responsible Professional Licensing - ARPL
The Federation of Associations of Regulatory Boards - FARB

• Exchange information and engage in programs and joint activities with member boards and associations
• Provide a forum for cooperation in solving the mutual problems of participating associations across jurisdictions and professions
• Engage in activities to improve the standards of professions, the delivery of services, and the services of regulatory licensing agencies
• Provide educational opportunities and legal updates for lawyers who represent regulatory boards
• Share information of the education of professionals, including accreditation of schools, colleges, and continuing education programs
• Foster communication and discussion about the latest assessment techniques for associations of regulatory boards and their members
Professional Licensure Coalition - PLC

• Develop bipartisan solutions to ongoing federal issues related to occupational licensure reform
• Provide relief from treble damages under federal antitrust laws for state licensing and regulatory boards
• Occupational Licensing Board Antitrust Damages Relief and Reform Act of 2019
ALLIANCE FOR RESPONSIBLE PROFESSIONAL LICENSING - ARPL

Priorities

• Educate policy makers and the public on the importance of clear, responsible licensing standards in highly-skilled, technical professions with high public impact.

• Offer best practices and solutions drawn from our experience to serve as models/examples that work for consumers and members of a given profession.

Projects

• Multi-year public relations and communications campaign
DESIGN PROFESSIONS COMMUNITY

- Interprofessional Council on Regulation (ICOR)
- Design Professions Coalition (DPC)
ICOR Members

- Council for Interior Design Qualification (CIDQ)
- Council of Landscape Architectural Registration Boards (CLARB)
- National Council of Architectural Registration Boards (NCARB)
- National Council of Examiners for Engineering and Surveying (NCEES)
ICOR PRIORITIES

- Share best practices and approaches for shared issues and common interests
- Identify opportunities to collaborate on behalf of our members
- Collaborative focus on advocating on behalf of the public protection role our regulatory boards play
ICOR Projects

- Joint new member orientation
- Templates for responding to legislative review (Sunset, EO, etc.)
# Design Professions Coalition Members

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<th>Organization</th>
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<tr>
<td>Council for Interior Design Qualification (CIDQ)</td>
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<td>American Society of Interior Designers (ASID)</td>
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<tr>
<td>International Interior Design Association (IIDA)</td>
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<td>Council of Landscape Architectural Registration Boards (CLARB)</td>
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<td>American Society of Landscape Architects (ASLA)</td>
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DPC Priorities

COORDINATE AND COLLABORATE ON JOINT RESPONSES TO THREATS TO LICENSURE

DEFEND INTEGRITY OF REGULATION OF THE DESIGN PROFESSIONS
The Landscape Architecture Community

- President’s Council
- CLARB and ASLA
- Boards and Chapters
President’s Council Members

American Society of Landscape Architects
Landscape Architecture Foundation
CLARB
LAAB
CSLA | AAPC
Council of Educators in Landscape Architecture
Priorities

- Bond and build community
- Build shared understanding
- Practice foresight
- Advance shared goals
Projects

• Tracking and monitoring the health of the profession
• Reframing landscape architecture
Priorities

- Continued licensure of landscape architects
- Strengthen licensure laws
- Build strong and effective board/chapter relations
Projects

- Legislation tracking and coordinated response
- Licensure education and defense resources
- Web licensure summit
**Societal Shifts**
- Divided society
- Increased emphasis on diversity, equity and inclusion
- Growing advancement/adoption of AI/automation
- Growing impact of climate change
- Emergence of new educational models
- China’s continued rise
- Global water crisis
- Sensors in everything (IoT)

**Regulatory Shifts**
- Declining trust in/rejection of expertise
- Push for least restrictive form of regulation
- Digital transformation
- Push for reducing barriers to licensure
- Shift from regulating entire fields to focused specialities
- Increased blockchain adoption in occupational licensing
- Technology-enabled performance standards

**Landscape Architecture Shifts**
- Evolution of practice due to climate change impact
- More defensible, accessible and agile exam
- Commitment to diversity and inclusion
- Evolution of practice due to AI/automation
- Public understanding of landscape architecture
- Alternative paths to licensure
- Global practice standards
- Future role of the landscape architect

**Foresight First Timeline**

**Date/Version:** 2-13-19/v1.6

**Prepared by:** CLARB BOD/STAFF WITH JEFF
Purpose

To provide uniform standards of competency for landscape architecture practice to ensure the public’s health, safety and welfare.

Strategic Intent

CLARB will lead and sustain future-ready standards for the competent practice of landscape architecture that are situated in a global context and advance the well-being of all human beings, communities and society.

Governing Intent

As the organization’s primary stewards, the CLARB Board of Directors will exercise its duty of foresight and learn with the future about the powerful forces reshaping the regulatory environment for landscape architecture. The Board will collaborate with members to maintain the integrity of licensure, while also working closely with other critical stakeholders to explore opportunities for meaningful innovation that can help sustain and advance regulation in the years ahead.

Guiding Principles of Action

The CLARB Board of Directors identified these guiding principles that will inform dialogue and decision making:

- Make the health, safety and welfare of the general public a consistent priority
- Nurture a shared sense of stewardship among all stakeholders
- Learn with the future through a consistent practice of foresight
- Ensure the integrity of landscape architecture’s regulatory framework
- Collaborate with stakeholders to amplify its impact throughout and beyond landscape architecture’s regulatory ecosystem
- Identify opportunities to foster innovation that will benefit its stakeholders, including the public

Critical Outcomes and Shared Learning Priorities

To work toward its strategic intent and build the organization and its stakeholders to thrive, the CLARB Board and staff will focus attention on these critical outcomes and shared learning priorities:

Critical Outcome #1

A future-ready regulatory framework for landscape architecture in North America.
Shared Learning Priorities:

- How will CLARB continue to evolve its role in promoting the importance of protecting the health, safety and welfare (HSW) of all human beings, communities and society through landscape architecture licensing?
- How should CLARB transform digitally (and in other ways) to reduce the unnecessary complexity and increase the beneficial impact of the landscape architecture licensing process for all stakeholders?
- How should CLARB begin to prepare for the emergence of new educational models, the continued evolution of landscape architecture practice and the acceptance of alternative paths to licensure?

**Critical Outcome #2**

*A stakeholder ecosystem committed to meaningful collaboration to understand, anticipate and prepare for the future of professional regulation in a global context.*

Shared Learning Priorities:

- How will CLARB work with other ecosystem stakeholders to better understand the impact of artificial intelligence and climate change on landscape architecture practice and regulation?
- How will CLARB work with other ecosystem stakeholders to better understand the impact of artificial intelligence, blockchain and other emerging technologies on professional regulation?
- How will CLARB work with other ecosystem stakeholders to nurture and deepen a shared commitment to a consistent practice of foresight for their common benefit and for the benefit of all human beings, communities and society.

**Critical Outcome #3**

*A richer understanding of the future landscape architect and their most important contributions.*

Shared Learning Priorities:

- *How can CLARB make sense of the shifting dynamics of landscape architecture talent pipeline and their larger implications for the future?*
- *How can CLARB participate in elevating the public’s understanding of landscape architecture and its impact on the well-being of all human beings, communities and society.*
- *What critical contributions can CLARB make to advancing landscape architecture’s commitment to increased diversity and inclusion in the profession?*