



# LANDSCAPE ARCHITECTURE FOUNDATION

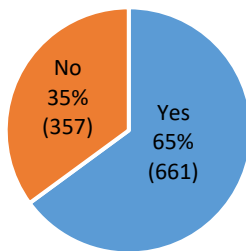
## Contents

This is a compilation of the live poll results and attendee chat from the LAF webinar “AI + LA: Artificial Intelligence and the Future of Landscape Architecture” held on August 29, 2023. The webinar recording and more resources can be accessed [here](#). The chat has been edited for ease of reading, with some comments removed for redundancy and clarity.

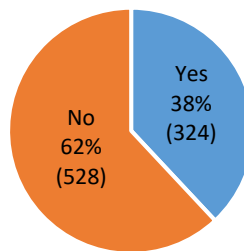
1. Live Audience Poll Results
2. AI-Generated Summary of Attendee Chat (ChatGPT)
3. Attendee Chat (edited)

### 1. Live Audience Poll Results:

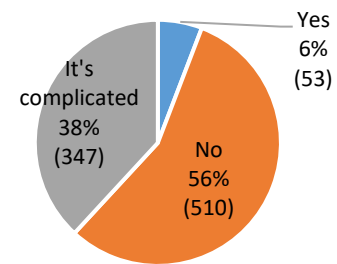
Have you used any form of image or text generation AI?



Are you integrating AI into your practice or teaching?



Do you think AI will take your job?



### 2. AI-generated Summary of Attendee Chat:

#### **Forms of AI attendees are using:**

Popular generative AI tools mentioned: ChatGPT, MidJourney, Stable Diffusion + ControlNet, Dall-E, Adobe Generative Fill

Using AI for parametric design and parametric landscape architecture

Poll showed majority of attendees are already exploring and experimenting with AI in some capacity

#### **Perspectives on AI:**

AI seen as a powerful tool and instrument that can aid landscape architecture workflow

However, ethical considerations around AI are crucial to preserve integrity of profession

AI has potential to enhance design ideation, analysis, sustainability evaluations - but human creativity, cultural/ecological knowledge still vital

Concern that over-reliance on AI could diminish critical thinking skills and quality of work

AI makes design 'cheap' so focus should be on maintaining rigor and synthesis in application

#### **Use cases:**

Generating ideas, images, textures for early conceptual design phases

Creating plant material libraries, scene materials, textures for visualization

Writing design proposals and summarizing large documents/presentations



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Potential to greatly improve and automate irrigation design systems  
Evaluating landscape performance - carbon, biodiversity, accessibility

## **Considerations:**

Major legal and copyright issues exist around AI-generated content, unclear if protected by copyright

AI will likely eliminate many lower-level production jobs but lead to new roles like AI design specialists

Need to maintain creative, emotional intelligence that AI lacks when interfacing with clients

Huge opportunity to incorporate AI meaningfully into landscape architecture education

## **Key challenges:**

Ensuring ethics catches up to rapid capabilities of AI/big tech

Impact on critical thinking skills for students and emerging professionals using AI

Compensating original artists whose work is scraped without consent for AI training datasets

Preserving human experience, culture, ecology with increased use of AI in design

## **Next steps:**

Additional forums and content needed on legal/copyright issues, practice applications, education

Survey attendees to gather perspectives and shape future conversations

Explore collaborative platforms for landscape architecture profession around AI

Overall, exciting possibilities but many open philosophical and ethical questions remain regarding the scale and scope of integrating AI into human-centric creative practices like landscape architecture.

## **3. Webinar Chat:**

12:58:23 From Megan Barnes (LAF) To Everyone:

Welcome! Feel free to say hello and where you're from in the chat. We'll get started at 1pm.

12:59:49 From Matt Sickle To Everyone:

All of the presenters look so real. Crazy how far A.I. has come!

13:05:22 From Dana Schumacher To Everyone:

space2place. love that name!

**[Audience poll: "What forms of AI are attendees using?" See poll results above.]**

13:05:51 From George Kutnar To Everyone:

ChatGPT & MJ

13:05:55 From William Hutabarat To Everyone:

parametric design

**[Other anonymous responses sent directly to panelists on what attendees are using: ChatGPT, Midjourney, Stable + ControNet, MJ, Dall-E, Bard, Adobe Generative Fill]**

13:06:10 From Tyler Olinde To Everyone:



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Chat GPT and Midjourney

13:06:18 From Jianhua Chen To Everyone:

ChatGPT& Photoshop

13:06:22 From Tyler Olinde To Everyone:

Adobe Generative Fill

13:06:31 From REECE VISSIA To Everyone:

Hi from Portland, OR. ChatGPT, Midjourney, Firefly, photoshop beta

13:07:06 From William Hutabarat To Everyone:

parametric LA

13:19:39 From Sara Pinnell To Everyone:

can you speak to specific examples of how you have used it and where you have experimented with it.

13:21:35 From Blair Guppy To Everyone:

great clarification @Karlaladanaochoa - AI as instrument whose output is as good as its users inputs

13:21:46 From Blair Guppy To Everyone:

If I understood correctly.

13:22:56 From Greg Bryla To Everyone:

Tool or instrument: does it not still create collages from a common thread of what others have created?

13:26:21 From Blair Guppy To Everyone:

@zhaozhang highlighting problems associated with the "reality bubble" here. right on.

13:26:24 From Lea James To Everyone:

Shifting your perspective so. Very interesting way to see it

13:26:43 From Rachel Ware To Everyone:

Very interesting perspective!

13:27:51 From Blair Guppy To Everyone:

if ethics can't catch up to big tech in general, what is the prognosis for AI?

13:29:16 From John Frey To Everyone:

How do you envision the recent rulings in D.C. on copyright of AI-generated work impacting workflow or adoption of AI into practice?

13:29:18 From Paul Mitache To Everyone:



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@Blair, David Shapiro has a lot of material regarding this - AI alignment - on his YT channel. Have a look, if interested.

13:30:16 From Blair Guppy To Everyone:

@paulmitache thanks

13:30:22 From Todd Schechinger To Everyone:

yep, everything from ideation with Midjourney, to photo editing, to copyright free character imagery development

13:30:23 From MARTHA FAJARDO To Everyone:

AI has the potential to be a powerful tool for landscape architects, aiding in design, analysis, and sustainability efforts. However, ethical considerations and the preservation of aesthetics and the human experience are crucial to ensure that AI enhances, rather than diminishes, the quality and integrity of landscape architecture projects.

13:30:25 From Kathy Hubner To Everyone:

Not using AI

13:30:49 From Seungman Kim To Everyone:

When we get outputs using generative AI, we don't know which images or photos were used for training the machine. Sometimes, the outputs can be very similar to the original images in the training dataset. Therefore, copyright problems might arise. Are there any efforts, or solutions to handle this copyright problem?

Is it safe to use AI-generated outputs in practice in terms of copyright?

13:30:52 From Sheri Brown To Everyone:

I feel like there is a sliding scale of AI use. Does spell check, Grammarly, Photoshop stitching and tools count?

13:30:55 From Andre Badawy To Everyone:

Chat GPT for writing reports - so far - imagery will come.

13:31:17 From Paul Mitache To Everyone:

probably bigger companies are more keen/ open to integrating AI than smaller companies/ individuals

13:31:22 From Kathy Hubner To Everyone:

Good question Sherry

13:31:42 From Laura Drawbaugh To Everyone:

non anthropocentric- exactly different from Olmsted, McHarg and someone else's definition of LA.

13:33:33 From Rachel Ware To Everyone:

Any suggestions from anyone for YouTube videos on AI as applicable to LA workflows?



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13:34:03 From Blair Guppy To Everyone:

@phil could we think of the future being more akin to an app?

13:34:20 From Jan Satterthwaite To Everyone:

Land FX has a great AI webinar about using AI on their support page. Anyone can access it.

13:34:52 From Rachel Ware To Everyone:

^ yes Jan, I watched that one. I need to rewatch soon

13:34:58 From Baldev Lamba To Everyone:

What are some of the programs mentioned?

13:35:06 From Zihao Zhang To Everyone:

if you go to <https://civitai.com/> and search architecture, you will find many checkpoint models used specific for architecture rendering.

13:36:33 From Blair Guppy To Everyone:

we are well within the #remixrevolution

13:36:58 From MARTHA FAJARDO To Everyone:

AI is a tool that complements our expertise as a landscape architect. It can help streamline processes, generate ideas, and analyze data, but it's our creativity, cultural, ecological thoughtful knowledge, and ethical considerations that ultimately shape the quality and impact of our landscape designs.

13:37:16 From Paul Mitache To Everyone:

Large Language Models have huge potential for analysing and generating massive amounts of data, but at least for now, people (and particularly companies) are a bit worried about data confidentiality (leaks)

13:38:28 From Blair Guppy To Everyone:

anyone ever used the "editor" function in word lately? its a built in version of grammerly isn't it?

13:38:30 From Tyler Olinde To Everyone:

We are incorporating AI as an inspirational tool in early processes of design. It's also great for writing proposals and summarizing large presentation documents into a narrative/summary.

13:39:16 From Claudia Harari To Everyone:

Can you guys give us a example of a real project where AI has been used?

13:39:25 From Paul Mitache To Everyone:

Sorry, the term "divergent thinking" had been mentioned a couple of times in the panel discussion, but I've missed the meaning. Anyone care to explain, please ?



# LANDSCAPE ARCHITECTURE FOUNDATION

13:40:10 From Nazanin Malakutian To Everyone:

Hello, What are the disadvantages of AI in Landscape Architecture, overall?

13:40:13 From Tyler Olinde To Everyone:

Also a fantastic tool for updating/creating plant material libraries, scene material, textures, etc.

13:40:26 From Nahal Sohbaty To Everyone:

How will designers navigate the copyright nightmare that AI brings? Recent court decisions say AI generated images are not copyright protected...

13:40:35 From Paul Mitache To Everyone:

@claudiaHarari a lot of Zaha Hadid projects (if not most) are using generative AI, at least in the concept phase. They've even developed a tool for it and made it publicly available.

13:41:30 From Gustavo Manzano To Everyone:

It's great for 2D and 3D asset creation, also for mood boards and inspiration boards, so more as a stockphoto substitute. I think the most interesting uses are more related to programming and automating for LA workloads and LA data interpretation

13:41:56 From Peter McNally To Everyone:

AI is making design 'cheap' too

13:41:59 From Caleb Melchior To Everyone:

BIG AGREE on Karla's thoughts on concision and summary - both for students AND in practice

13:42:12 From Paul Mitache To Everyone:

@gustavo very true, generative tools will be the death of photo stock sites

13:43:08 From Blair Guppy To Everyone:

is AI improving the critical thinking skills necessary for those emerging from academia?

**[Audience poll: "Will AI take your job?" See poll results above.]**

13:43:42 From Todd Schechinger To Everyone:

yes, AI will eliminate a lot of the current production level jobs we have

13:43:57 From Todd Schechinger To Everyone:

Irrigation design in particular will get significantly more efficient with the use of AI

13:44:24 From Sandy Fischer To Everyone:

Changing skill will mean less hierarchy in firms

13:44:40 From Anthony Castagnoli To Everyone:

@SandyFischer let's hope!

13:44:49 From Marcha Johnson To Everyone:



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AI could make it easy for untrained folks to make images that look like they might have been done by landscape architects

13:44:56 From Taylor Mcneill To Everyone:

can't wait for irrigation design to get more efficient lol. still need people who understand it in the field tho

13:45:03 From Alison Grover To Everyone:

won't production level jobs just morph into AI operating? Especially if entry level workers are the ones who have the greatest handle on the technology

13:45:04 From Khai Chung To Everyone:

which specific AI programs are commonly used in early design process or development do you all use?

13:45:16 From Tyler Olinde To Everyone:

I think the shift will be AI design specialists that incorporate its capabilities into workflow. This in-turn will allow designers to really take advantage of the increased creative headroom that was previously used by production

13:45:24 From Marc Miller To Everyone:

But has the discipline ever escaped the picturesque and beauty?

13:45:38 From MARTHA FAJARDO To Everyone:

AI has the potential to reshape landscape architecture by enhancing design processes, optimizing resource use, and addressing complex challenges. However, its integration must be approached thoughtfully, with a focus on maintaining the human touch, ethical considerations, cultural preservation, and a commitment to creating landscapes that enrich human experiences and environments.

13:46:16 From Megan Turnock To Everyone:

I'm hoping we use AI to evaluate the benefits and performance of our landscapes - such as carbon footprint and biodiversity, accessibility, etc

13:46:50 From Andre Badawy To Everyone:

No AI will understand clients emotional, visionary, development requirement needs without human input. The client is human.

13:46:55 From Cesar Delgado To Everyone:

AI for irrigation design is like a calculator for math equations. one still needs to know how to solve the equation and irrigation design is a beneficial skill to have.

13:47:02 From Aida Curtis To Everyone:

excellent idea @megan Turnock

13:47:08 From Taylor Mcneill To Everyone:



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I'm interested in seeing the ven diagram between AI tools in LA and in construction. design is still constrained by construction in my experience

13:47:38 From Paul Mitache To Everyone:

Life Cycle Analysis is a good example where powerful, autonomous AI agents would make a difference. At the moment it is very difficult for a human, or even for a team, to keep track of all the changing aspects of the process.

13:47:59 From Yiran Zhao To Everyone:

Utilize AI to handle the intricate calculations, and for determining quantities, we can integrate the outcomes into our design process.

13:48:22 From Tyler Olinde To Everyone:

We are experimenting with AI/GIS/Hydrology modeling to assess stormwater interventions as well as coastal restoration

13:48:38 From Quynh Pham To Everyone:

Thank you LAF for hosting such a fascinating discussion! Thank you to all of the speakers and the moderator for your thoughts and insights!

13:49:06 From Sophie Lott To Everyone:

AI being able to assess drawings for constructability and legibility would be incredibly helpful.

13:49:09 From Marc Miller To Everyone:

"Knowledge is cheap." Rigor and synthesis are not...

13:49:20 From yiran shen To Everyone:

I'd love to see how AI could help designers generate/verify design regarding Metric and performance

13:49:21 From Zara Brown To Everyone:

Quite the challenge. At the end of the day we just cant be replaced. AI is tool, if used well it can be beneficial. That's said, I have to drop off. thank you!

13:49:31 From Joey Hays To Everyone:

++ Marc Miller

13:50:08 From Margarita Padilla To Everyone:

this is an opportunity to go to local school districts and present what can happen. Currently in my local district, high school kids get a certificate for Adobe Suite if they take approved courses in graphic design. This could be a great tool if it is included as part of their curriculum.

13:50:30 From Paul Mitache To Everyone:

@YiranShen we're yet to see the AI getting some sort of spatial awareness. We're simply not there yet. But yeah, it will be a game changer.





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13:50:31 From rosemary alex To Everyone:

I am just concerned that the more we rely on AI the less we use our brain and the long-term consequences of that.

13:50:42 From Tyler Olinde To Everyone:

I believe our emotional intelligence will always outweigh AI machine intelligence when it comes to the practice.

13:50:47 From Carlos Flores To Everyone:

I am very excited for students. What a great time to be in school and experience this revolution. I'm confident that any student, and anyone, with a love for continuous learning will do just fine and find a fulfilling role in the era of AI.

13:51:48 From Carlos Torres de Janon To Everyone:

I for one cannot wait for the disruption this is going to make on contracts/RFPs, I think it's going to get rid of the "race to the bottom" mentality we've inherited from architects because it's going to force everyone to ask "so what IS the worth of this white collar job?" because y'all, it ain't +100 renders on multi-gigabyte Lumion models that don't get billed...

13:51:55 From Joey Hays To Everyone:

Seems we need two breakout sessions following this 1. Bigger Questions (ethics, impact of creativity, spatial thinking) 2. Nuts and Bolts (built work, phase by phase when what software is used)

13:52:25 From Kenny Hong To Everyone:

I think design is unique, there is no right or wrong. Design is reflected from the needs of the user of space. Empathy is big part of us humans that can directly impact a design, AI can't.

13:52:36 From Mark Wessels - PGAdesign (he/him) To Everyone:

Wow. Thank you panelists and Phillip for organizing. This is way more thought provoking and interesting than I dared to hope for!

13:52:49 From Blair Guppy To Everyone:

@phil i'm sure there's an AI program to synthesize the chat and qa here.

13:52:59 From Sara Pinnell To Everyone:

I appreciate the university perspective but would love another session with design professionals/owners

13:53:01 From John Oudyk To Everyone:

One of the things I notice, and the most valuable thing I've learned over the many years in construction: get your hands dirty! I design exclusively in CAD, but the school of hard knocks is hard to duplicate.

13:53:02 From Peter McNally To Everyone:



# LANDSCAPE ARCHITECTURE FOUNDATION

agree with Jeff about the short term benefit being for the individual. the orgs that can fine tune models and leverage those results will be initial leaders

13:53:08 From Doug Hays To Everyone:

“Whatever God does is final. Nothing can be added to it or taken from it. God’s purpose is that people should fear him. What is happening now has happened before, and what will happen in the future has happened before, because God makes the same things happen over and over again.” Ecclesiastes 3:14-15

13:53:24 From Amy Whitesides To Everyone:

Another ++ for Mark Miller’s comment. Exciting to consider this an opportunity to focus further on rigor and synthesis in design education.

13:53:54 From Taylor Mcneill To Everyone:

I think the best possible outcome for AI is that it allows the designers to focus on design decisions as it relates to environmental, social and economic responsibility and advances the quality of the work and reduces the amount of time spent on busy work to meet deadlines - and losing sight of larger goals for the sake of getting it out the door.

13:55:11 From Zihao Zhang To Everyone:

<https://www.copyright.gov/ai/>

13:55:15 From Sheri Brown To Everyone:

Excellent conversation. I am not less scared, but I am more intrigued. Thank goodness for spell check! ;-)

13:55:50 From George Kutnar To Everyone:

EULA is different for every tool, MJ, OpenAI (ChatGPT), Firefly, etc

13:56:06 From Andre Badawy To Everyone:

Great work on lets collaborate as a global group of landscape architects (QR codes just demonstrated). We need a forum.

13:56:23 From Lea James To Everyone:

You pay for midjourney, so wouldn't be normal to pay for the artists' images being used?

13:57:59 From George Kutnar To Everyone:

Adobe's Firefly is Beta because they are trying to figure out how to compensate Adobe Stock contributors. Hard enough for them to just pay Stock people, I cant imagine MJ or others can figure out how to pay the whole internet

13:59:33 From MARTHA FAJARDO To Everyone:

How do we anticipate the future integration of artificial intelligence and landscape architecture professionals will influence the preservation and enhancement of biodiversity in urban and natural spaces, and what challenges might arise in striking a balance between technological advancements and ecological sustainability?



# LANDSCAPE ARCHITECTURE FOUNDATION

14:01:34 From Allisona Greenberg To Everyone:

Fantastic discussion, thank you panelists!

14:01:55 From Taylor Mcneill To Everyone:

Appreciate this webinar thanks to the panelists and hosts.

14:02:01 From Katie Seidenwurm To All Panelists:

This discussion is fascinating. Seems like we just scratched surface. I would be interested in more discussions. Thank you!

14:02:09 From Sarah Elizabeth Konradi To Everyone:

thought provoking and important- thanks to all panelists and LAF for this discussion

14:02:16 From Andre Badawy To All Panelists:

Recommend check out SilaCities for a version of AI integrated into big data. Data is always required for fulfilling a brief produced by so many stakeholders. AI can provide the predictive analytics to complete the brief without human intervention.

14:02:21 From stephanie landregan To Everyone:

Terrific webinar, great discussion and much to consider.

14:02:33 From Karen Janosky To Everyone:

This is EXCELLENT!! Thank you all!

14:02:34 From MARTHA FAJARDO To Everyone:

Thanks to all panelist and LAF!!

14:02:37 From Cheval Oldaker To Everyone:

thank you, this was a great discussion and very exciting to see where we will be going in the future

14:02:39 From Kathryn Kanaan To Everyone:

Thank you panelists and Phillip. Very thought provoking!

14:03:08 From Catherine De Almeida To Everyone:

thank you to everyone- great discussion / questions / insights from all. much appreciation!

14:03:10 From Wendy Miller To Everyone:

So thought provoking and the chat was on fire!!

Very relevant discussion and thank you for organizing this (and future) forums on this topic! Will follow this up with the google survey.

14:03:19 From Alyson Taylor To Everyone:

Thank you to all. This was a great conversation and introduction to the realm of AI.

14:03:29 From Heather Corcoran To Everyone:



# LANDSCAPE ARCHITECTURE FOUNDATION

Thanks so much! So great to connect with others interested in this conversation!

14:03:31 From Afshin Ashari To Everyone:

Great conversation! I hope this time around, LAs embrace new technology sooner than before. Thanks, Phil, Ziaho, Jeff, and Karla.

14:03:45 From Phillip Zawarus To Everyone:

Thank you LAF and panelists for organizing and getting the discussion started on this topic that has been looming around for the past year plus.

14:03:54 From Isabella Serimontrikul To Everyone:

Fantastic webinar, can't wait for the future discussions! Already submitted my Google Form. Great work to by the panelists, very exciting.

14:04:19 From Andre Badawy To Everyone:

Panelists you're amazing. Thanks so much. Really educational. So many facets to get involved in within 1 hour.

14:04:20 From Allison Endres To Everyone:

Fantastic webinar!!! Mind blown!!! Can't wait to join the next one!

14:04:26 From Jana Tyrer To Everyone:

Thank you for this webinar and the discussions, so insightful! I have just started MIT Sloan + CSAIL Artificial Intelligence: Implications for Business Strategy Program and I am working on a paper to draw a pathway for our business to implement AI to our profession. Thanks to today I gained a lot of questions for which I will be seeking more answers. THANK YOU!

14:04:32 From Amol Deshpande To Everyone:

@phillip, Great job in moderating this webinar. Thank you to all the panelists.

14:04:38 From H.T. Lam To Everyone:

many thanks! very insightful!

14:04:57 From Janel Wilcox To Everyone:

If LAs don't embrace ways to use AI, others outside the profession will likely find ways to provide some of "our" services without being LAs...