Some Assembly Required
The IKEA Effect and AGOL COTS Applications

By Jordan Carmona, GIS Specialist, City of McKinney, Texas, jcarmona@mckinneytexas.org

Universal human behaviors are often exploited through commercial means long before they can be articulated through proper scientific study. In the 1950s, Gillis Lundgren, an employee at a fledgling Swedish mail-order business, pioneered flat-pack, ready-to-assemble furniture resulting in wide-ranging benefits: the ability to hold more inventory on site, cost-savings on assembly, easier consumer transportation of purchased goods, and easier commercial bulk shipments. Today, that mail-order business is IKEA, the world’s largest furniture retailer, with an annual global revenue in excess of 35 billion Euros. Although the business case for flat-pack furniture seems straightforward; Norton et al.’s “The IKEA Effect: When Labor Leads to Love” articulates a deeper psychological mechanism underpinning the success of ready-to-assemble products aptly termed the “IKEA effect.” Broadly, this describes how consumers value items they help assemble at higher levels than identical products assembled by others. Understanding and recognizing this cognitive bias can lead the average GIS professional to produce more polished, effective applications utilizing custom-off-the-shelf (COTS) applications available in the ArcGIS Online (AGOL) ecosystem.

The IKEA Effect Unpacked
The IKEA effect was based on the analysis of a series of experiments where certain participants constructed and bid on IKEA storage boxes or folded origami, while others did so solely.¹ These experiments measured value by comparing willingness-to-pay against the different classes of products assembled by participants and assembled by others, with the caveat that the assembly process must be fully completed.

Establishing the IKEA Effect and its Magnitude - Experiment 1A & 1B
These first two experiments focus on identifying the existence of higher valuation for self-assembled products and finding relative benchmarks for how much higher those valuations are in comparison.

¹continued on page 2
to different standards. Experiment 1A shows that participants were willing to pay a 63% premium for a simple box that they had constructed themselves, as opposed to an otherwise identical box that was pre-constructed. This is the broadest sense of the IKEA effect and justification for the namesake. Perhaps even more interesting was the next experiment measuring magnitude.

First, participants, termed builders, were asked to create an origami frog or crane, and offered a chance to purchase their own creation. Second, a group of experts constructed the same types of origami creatures. Third, a different set of participants, termed others, were asked to bid on both sets of works—setting a market price for papercraft animalia ranging the spectrum from amateurish to expert. The resultant average bids ranged from $0.05 - $0.27; builders valued their artistic endeavors at a premium of 23 cents, while others were willing to pay the paltry sum of a nickel for the self-same creations, and consummate origami was priced at 27 cents. The acute implication of this data is that builders without fundamental instruction, rote, or preparation imbue value into their products at comparable levels to the market rates for expert-crafted products.

At first glance, it may seem odd to evaluate the cognitive biases exploited in the creation of consumer goods; however, there are parallels to trends within the geospatial technology. The increasing prevalence of software as a service (SaaS), has shifted the focus of geospatial technology from desktop-based programs to distributed cloud-based applications. The consumerization of software users outside of the initial purchase and licensing is mostly achieved by aggressively offering online, custom-off-the-shelf (COTS) applications. The GIS professional’s interactions with these COTS applications mirrors the ready-to-assemble furniture experience; minimal instructions, standardized parts throughout an ecosystem, and lightweight components requiring no technical expertise. If cloud COTS applications mimic the flat-pack workflow, how do we make the most of our understanding of the IKEA effect?

**Built to Last**

The worst web maps I’ve ever had the pleasure of seeing were made by me. I have also built a spectacular end table that holds the litter box for my cat. The more honest truth is the cat-box seems to be coming apart at the hinges, and requires a weekly kick to straighten it out; my web applications suffer the most when I don’t take the time to polish the end-user experience. At home, my feline customer doesn’t complain about the architectural deficits introduced in the assembly of the facilities. At work, my potential customer base includes 180,000 residents, the working population and any visitors or guests that the City may see on a given day. The following are some selected strategies to employ in order to polish and more effectively utilize COTS products available in ArcGIS Online (AGOL).

**Don’t “Deploy in Minutes”**

One of the greatest strengths of the COTS paradigm is the inclusion of What-You-See-Is-What-You-Get (WYSIWYG) preview capabilities. These applications allow you to visualize what the end-user sees when interacting with your product. This is not a frill, it’s an opportunity to preempt embarrassing phone calls, emails, and social media posts from the viewer-base. The temptation to stand up an application, in mere minutes often sacrifices the chance to create a great experience for the end-user, one that is unencumbered by distractions created through a sloppy delivery.

Akin to reading the instructions before assembly, a standardized checklist should be an integral part of the development process before any COTS application is floated either internally or externally. Cartographic conventions aside, this usually starts with your Web Map item and configuring the pop-ups. From legacy attribute architecture to the 10 character limit of the dreaded shapefile, your <Field Alias> needs to be different from your <Field Name>; concise, explanatory, and use spaces. Don’t display attributes you don’t need, this includes ObjectID and shape fields. Get rid of the thousands separator option. Omit unnecessary pop-ups, if it’s the only thing on the map and has a unique symbology, this would be an excellent item to put into a legend.

Metadata is helpful to your colleagues, other GIS professionals, and your future self. There are now subtle prompts directing you to fill in metadata in the description page of your Web Mapping Application, Web Map, Dashboard, Feature Layer, etc. A summary should be at least 30 words, and accurately describe the purpose of your map. The description should be more than 100 words, and might go further into detail about the types of layers within the application, update schedules, links to other applications in the AGOL ecosystem, and other pertinent information. Tags will help others find your work, and thinking about how to tag your own work can lead you to other sources of inspiration for the problem you’re
trying to tackle.

For the applications themselves, throw in your logos/branding, standardize the color scheme between applications and make sure that you link back to your main site. Your tagline doesn't have to be “with Web AppBuilder for ArcGIS” or “A story map”. For the more narrative-driven applications, spelling and grammar become important considerations. While you may not be a wordsmith, there are plenty of free applications and browser plug-ins to ferret out the most major infractions; I'd recommend giving Grammarly² a go for basic spelling and grammar, or the Hemingway Editor³ if you suffer from being too rambling and verbose.

Despite the straightforwardness of the phrase, face-value is difficult to assess under the dual influences of the IKEA effect and the usual intimacy of a GIS professional with the data in which they work. Developing standardized ways of interacting with COTS applications will help ensure that the end-user experience is as uniform as possible between each visit and across differing applications hosted by your organization. At the end of the day, I shouldn't have to kick the catbox, I should have built it correctly out-of-the-box. In like fashion, robust standard operating procedures should keep the wobbles out of your web apps.

Display with Pride

Interaction with the AGOL COTS ecosystem exposes us to the IKEA effect, but unlike the average consumer, our shoddy constructions are not safely sequestered within the halls of a private domicile, they live in the cloud, available to anyone across the planet with an internet connection. This makes it imperative that we identify and resolve our psychological predispositions to value work at a level higher than its face value. While we may gloss over the imperfections inherent in our own works, the end-user is unlikely to be as forgiving; our perceived value closer to a nickel than a quarter.

“Don’t try to get all fancy...it doesn’t work.”

The word “fancy” brings up about 20 results in my inbox, this is one of them. I’ve also gathered other gems like “interactive map is horrible” and “map is useless”. In all fairness, they were right. The map in question had an issue that made the selection radius horribly small, a handful of pixels. Less than noticeable on a desktop computer, glaringly obvious on any mobile device. This experience opened my eyes and let me see the unwieldy, rickety applications that I had proudly deployed.

This same critique can be applied to the ever venerable All-In-One map. If your map has 30 layers, you’re not doing anyone a service by hosting it. Disparate data needs to be presented with the proper context, single subject, focused applications should be the rule of thumb. In a similar vein, just because you can add a dashboard doesn’t mean that you should. Your data tells a story, it does so in specific ways. Averages and on-the-fly calculators don’t mean anything if the data they crunch was not significant to begin with.

I’ve heard it said a few different ways, usually a variation of, if X can’t use it, then you need to make it simpler. Be careful to casually cast a net involving X-type of person, the more accurate advice is to ask your audience to test your application. This is easiest if your audience is limited or exactly known. If your audience is nebulous or too broad, go and ask subject matter experts, GIS colleagues, laypersons, and those you would consider to be computer illiterate. Each of these people will provide insight that you may not have had yourself, or find difficult to see through the spectre of the IKEA effect.

The general trends of the geospatial industry are not changing anytime soon, and we will continue to see SaaS play an ever larger role as data complexity deepens and so too the computational requirements to effectively analyze it. The demand for cloud-based infrastructure, out-of-the-box data science, and COTS applications will only be outpaced by the avalanche of data that we continue to produce in real-time streams through increasingly web-enabled devices. These tools are powerful, convenient, but rely on “the builder” to assemble them correctly. Our natural impulse is to overvalue the fruits of our labor, even when it involves minimal expertise. Recognizing this cognitive bias allows us to control its effects. A detailed and thoughtful examination of our interactions with ready-to-assemble applications can help us pass along showroom-quality experiences to “the others” that use our products the most.

²www.grammarly.com
³www.hemingwayapp.com

Mark Your Calendar!

GIS/CAMA 2019
Portland, Oregon
February 25-28, 2019
With stakeholders spread across 14 departments, Minnehaha County GIS Coordinator Heidi Jerke manages data for the most populous county in South Dakota.

Minnehaha County has a population of around 185,000 spread out over 814 square miles and a total of 68,000 parcels. The county seat, Sioux Falls, is one of the fastest growing cities in the United States; between 2000 and 2016, it saw an estimated 29% population increase.

Jerke, who has been working for the county for more than 13 years, sits in the Planning & Zoning department. She supports all departments across the county, including her own and:

- Equalization (Assessor)
- Emergency Management
- Sheriff
- Metro 911
- Auditor
- Treasurer
- Information Technology
- Public Defender
- State’s Attorney
- Register of Deeds

Other officials, like the county commissioners, often rely on Jerke and her colleagues for information. Therefore, high-resolution aerial imagery and accurate property data were must-haves for the county’s many functions.

Struggling with a need for better data
The City of Sioux Falls has its own offices, including a Planning & Zoning department. Yet with 22,000 parcels outside of city limits, the rest of the county is far more spread out, making change exceedingly difficult to track.

The department’s technology resources were largely inadequate, such as low-quality orthogonal-only aerial imagery updated just once every six years. As a result, Jerke’s department didn’t receive the level of detail needed to analyze and inspect properties and parcels.

That inefficiency meant time spent out in the field for officials. “We’re such a rural county that every site visit takes a couple of hours,” Jerke said.

Jerke knew that her county needed better imagery. Having recent high-resolution aerial imagery would show necessary property details to departments across Minnehaha County, thus reducing the number of site inspections needed. This, in turn, would save departments time and money and reduce risk out in the field, starting with her own department.

Tackling planning & zoning challenges
Jerke chose Pictometry® imagery from EagleView to help herself and her colleagues make appropriate zoning changes, including re-platting properties, determining driveway placement, and enforcing codes.

“Code enforcement uses the imagery as a comparison tool to see if different land has been a nuisance with a lot of junk or vehicles or dilapidated buildings,” Jerke said. “With imagery, we can see if it’s been cleaned up over time.”

County residents often come to Jerke’s offices to file complaints if there are tile drainage issues on nearby agricultural fields. Tile drainage can remove excess water from soil below the surface. When working improperly, however, property owners downstream may notice excess water in their own yards or fields.

“Downstream owners usually are the ones to complain depending on how the fields are draining,” Jerke said. High-resolution aerial imagery helps her department address these concerns more quickly. “We can tell from the imagery and see the drainage lines to tell where the water is pooling.”

Using imagery across county departments
Each department in Minnehaha County uses imagery and data solutions from EagleView for distinct purposes:

- The Equalization Office assesses all properties throughout the entire county using aerial imagery and recently implemented a change detection solution.
- Public safety agencies in Minnehaha County rely on imagery and data to size up a location before they respond to emergencies.
- The county building inspector saves a considerable amount of time with imagery, using it to ensure permits have been pulled. He also leverages measuring tools built into the viewing platform to ensure property details line up as they should.
- The Planning & Zoning department can review nuisance complaints and related violations without traveling to a property and facing an uncooperative property owner.

The building inspector and other departments are also embracing the ability to take the imagery with them wherever they go with the use of a mobile application from EagleView.
“Our building inspector can look up any location and see our own GIS layers overlaid on the imagery,” Jerke explained. “He can easily see what’s next door while he’s out in the field and can plan his day that way.”

**Gaining priceless knowledge and a better workflow**

The county has seen a ripple effect of benefits by using aerial imagery. Staff members don’t need to perform as many field visits, which saves them time in their day-to-day schedules and saves the county money on fuel expenses.

When officials needed a quick map of the county properties for sale, imagery and data make the task simple. “Sometimes they ask for different information,” Jerke said, “and when we can show them what they’re asking, they are wowed by it. They’re amazed at the quality and what you can actually see with Pictometry imagery.”

Even community members can receive answers thanks to the public mapping viewer, which gets a lot of use. The knowledge departments and residents receive from the imagery, Jerke said, is invaluable because they can view what’s on the ground in seconds.

“What you see is what you can believe,” she said. “Just having that tool where you can actually measure something and see what’s there is priceless. It answers a lot of questions.”

Jerke credits aerial imagery with speeding up the flow of information across her jurisdiction. Learn more about some of the tools in Minnehaha County's tech stack.

Since 1980, URISA's Exemplary Systems in Government Awards have recognized extraordinary achievements in the use of geospatial information technology that have improved the delivery and quality of government services. The award competition is open to all public agencies at the national/federal, state/provincial, regional and local levels. Winners will be recognized during the Awards Ceremony at GIS-Pro & CalGIS 2018 in Palm Springs, California (October 9-12, 2018).

**Submissions are invited in two categories:**

**Enterprise Systems:** Systems in this category are outstanding and working examples of using information system technology in a multi-department environment as part of an integrated process. These systems exemplify effective use of technology yielding widespread improvements in the process(es) and/or service(s) involved and/or cost savings to the organization.

**Single Process Systems:** Systems in this category are outstanding and working examples of applying information system technology to automate a specific SINGLE process or operation involving one department or sub-unit of an agency. The system application results in extended and/or improved government services that are more efficient and/or save money.

**Submissions are due on or before Monday, June 4, 2018.** A detailed application requiring details about the Jurisdiction/Organization, System Design, Implementation, Organizational Impact and System Resources is available online.
Check out this Story Map of Palm Springs attractions. You might want to plan an extended visit in October!
The days and weeks after employees start at your company represent a time of unique opportunity. Can you teach them new systems and skills? Of course you can. But have you also stopped to consider all the other important goals you can reach during the onboarding period? To name just a few, you can . . .

- Grow and encourage adoption of your culture
- Get new hires to understand, promote and believe in your brand
- Sow the seeds for outstanding customer service
- Cultivate the kind of spirit and energy that customers will value and love
- Hear creative ideas from new employees who have a fresh perspective
- Build retention by proving that your company is a great place to work
- Set up communication channels with new hires that will improve operations throughout your company

Those are only a few of the opportunities you have during employees' first weeks at your company. But how can you take advantage of them? Here are eight approaches that work.

1. Start by Having a Well-Defined Onboarding System
   Many companies just wing it, with negative results. Still other companies see onboarding as little more than filling out forms, setting up company email accounts and showing new employees to their desks. Because new hires start their jobs without a deeper understanding of what is expected of them, they make mistakes that quickly become costly habits that must be corrected later on.

   Many problems can be avoided if you set up a structured onboarding system that functions as high-level training. On their start days, new hires can meet individually with HR representatives to fill out forms, for example, and then meet as a group to watch videos and learn about your company, its brand and its values. After lunch, they can be trained in the basic skills their jobs demand; watching training videos, engaging in work simulations and working alongside current employees can work well to reach those goals. And after day one, they should attend regular follow-ups to address problems and reinforce basic concepts and skills.

   The operative strategy is to clearly define ahead of time exactly the skills and behaviors you need, and to create a concise mini-curriculum that tracks to them.

2. Set Up Genuine Mentoring Relationships between New Hires and Successful Current Employees
   Remember, mentors’ goals should not be to get new hires to imitate what they do, or even to adhere to company systems. Their purpose is to discover what new employees would like to accomplish at your company, and to help them reach those goals. In short, mentoring is not about the mentors or strictly about your company, but about the employees who are being coached.

3. Find Ways to De-layer and Free Up Communications
   Invite new employees to brainstorming sessions where their new ideas are collected, posted, discussed— and put into action when appropriate. Also consider setting up de-layered systems—like virtual suggestion boxes on your company intranet—where employees at all levels can present suggestions directly to top company executives. If employees can only submit ideas to their immediate managers, you have created a communication structure that carries a risk of demotivating front-line and entry-level personnel; just one supervisor who stifles new ideas can do great damage to your company.

4. Don’t Do Training on the Cheap
   One thing is for certain: if you are only handing out employee handbooks and having new employees fill out withholding forms, you are missing out on some great opportunities. If you can train every new retail salesperson to sell just 10% more on every order, for example, that could result in hundreds of thousands of dollars’ worth of new business company-wide, maybe even more. Or if you can set up mobile training that sends out pings to remind employees to use specific skills they learned in training, you could increase your training...
ROI dramatically. The lesson? Spending a little more to deliver great training is a money-maker, not a cost.

5. Within Your Budget, Customize Training for Each Employee
Even “standardized” training can be enriched by creating individualized training elements for each new employee. You can evaluate the skills of your new hires during training and address them directly, for example, or help employees overcome anxiety about performing certain parts of their new jobs. Investing just a little time to give training extra value can go a long way toward getting new employees up to speed faster.

The onboarding period is a highly effective time to share the big picture about your company and to get employees to buy into your most important goals and priorities. Instead of waiting for employees to discover these critical priorities, start talking about them soon after new hires come on board.

7. Consider Creating a Career Plan for all New Employees
You won’t want to do this for seasonal or short-term employees. But for employees whom you would like to stay with you for the long term, consider sitting down with each of them to create individual career-development plans that spell out what they need to do to be promoted within your organization. You could say, for example, that all retail salespeople can apply for management training after six months of employment, or that your company will provide technical training to help them move into their desired career path at your company.

     Millennials, especially, are more likely to stay with your company for the long term if they know the ropes and understand what it takes to build a long-term relationship with your organization.

8. Evaluate Whether You Are Acting like a Great Employer
This is something you should always do, not only when you are training a new class of employees. So take the time now to benchmark your company climate, benefits, quality of work/life balance and other factors against other companies. Unless you have the best of everything, you cannot expect your employees to commit their hearts and minds to working with you for the long term.

     You see, retention starts with you, not with your employees. Unless you commit your efforts to becoming an “employer of choice” - a company that people talk about and would love to work for - you are damaging your profits, operations and ultimately, your success.

ABOUT THE AUTHOR:
Cordell Riley is sought-after keynote speaker, and the Owner and President of Tortal Training, a leading training development company he founded in Charlotte, North Carolina. Tortal uses strategic engagement methodologies and specializes in developing mobile training platforms for organizations with distributed workforces. A recognized training expert with extensive experience in the service, automotive and franchising sectors, Cordell has spent more than 20 years helping thousands of companies achieve outstanding success through training. For more information about Cordell Riley, please visit: www.Tortal.net.

---

URISA’s Strategic Goals:

Protect, promote and grow the GIS profession. Support GIS professionals at all stages of their careers with essential training and resources. Sustain and strengthen the organization.

---
Powerful Team Conversation: The Foundation of a Successful Team  
By Chris Ciardello

When faced with a problem, it often helps to grab someone and talk it out. This is a great collaborative strategy to problem solving. Everyone has a different personality, and everyone sees the world in a different light. What happens when the problem you have is with another person? A common answer is, “I just need to vent, to get this off my chest.” The drawback with handling your problem with another person is that it now becomes gossip. Gossiping is a cancer in any office or social environment. It builds walls and divides teams.

A major subject in many offices and workplaces is conflict resolution. Every office has conflict, but not every office handles it the same way. That is why it’s a topic that should be discussed clearly with your team. Workplaces are full of diverse personalities who communicate in unique ways. These differences in personalities are what make conflict resolution an uncomfortable and touchy subject.

The first step to successfully deal with conflict is to bring both parties together and have a meeting of the minds. The parties involved in the conflict need to sit down and talk it out.

Prior to this meeting the ground rules need to be explained.

There are four ground rules to successful conflict resolution.

**Rule #1**
Each side must listen fully to the other side before responding. Often times when one party is explaining something that is bothering them the second party will feel defensive and want to jump in and explain why they did XYZ to justify their actions. There is nothing more frustrating when someone interrupts you, especially when trying to resolve a problem. The first person listens to everything the other person has to say, and then the second person will have their opportunity to explain their side. This process is repeated until both sides have sufficiently made their case.

**Rule #2**
Identify the issues clearly, professionally, and concisely. Unless the issue is identified, a resolution cannot be found. This morning Betty came into work and she threw her purse on her desk and snapped at Sally when Sally said good morning. The reason that Betty snapped at Sally when Sally told Betty good morning could be that Betty got a frustrating text from her child saying they forgot their homework. This has nothing to do with Sally, yet the frustration was taken out on her, and this caused some tension between the two of them the rest of the day. In some cases this kind of tension can simmer and slowly build up to a boil making it extremely important to have open communication with your co-workers. You may not always know what is going on in another person’s life, so try not to jump to conclusions.

**Rule #3**
When both parties meet to discuss their issues, they are only allowed to use “I” statements. “I felt ignored at the meeting this morning when I was trying to explain the details about Mrs. Jones.” Framing an issue you have with another person with an “I” statement helps to bring their defenses down so that a resolution can be found among the conflict. “You’ statements tend to put people on the defensive because they feel like their integrity is under attack.

“YOU always put the instruments back wrong.”
“You never take out the trash.”

When someone starts to get on the defensive they stop hearing everything that is being said. They are focusing on how to defend their integrity. “I” statements diffuse anger and assault.

“I get upset when I can’t find the instruments I need.”
“I feel demotivated when the chart is ripped out of my hands.”
“It hurts my feelings when a harsh tone is used when asking for a favor.”

Having conflict in an office is ok; in fact, it’s actually healthy.
When you bring the problem back to how it makes you feel it will bring guards down and a conversation can begin.

Rule #4
The final and most important rule is that there are no personal attacks, name-calling or finger pointing. These are a sure fire way to get the other person on the defensive, and there is just no need for petty attacks a professional environment. When voices raise, the control of the conversation is lost. This prevents both parties from being able to continue the conversation with a level head. As soon as the voices raise, or tears start to flow each side needs to pause (maybe even step a side for a few moments) to gain their composure so that a civil conversation may continue.

Having conflict in an office is ok; in fact, it’s actually healthy. However, preventing conflict from turning into heated conflict is crucial to avoid division in an office. If a resolution cannot be found with the two parties sitting down and talking it out, then it is time to bring in a mediator. Often times this will be the doctor or the office manager. Whoever it is, they need to remain as neutral as Switzerland. The mediator cannot and should not pick sides, and the same ground rules apply. Everyone wants to work in a happy, peaceful environment, so it’s important to talk it out.

ABOUT THE AUTHOR:
Chris Ciardello is a practice management consultant with Global Team Solutions. Passionate about sharing his expertise in technology and marketing, Chris has a distinctive knack for understanding the needs of office environments and assisting companies in building productive, cohesive teams. He began his career in dentistry as an office manager after graduating from the University of Texas, San Antonio with a BA in marketing. For more information on Chris Ciardello, please visit: www.GTSGurus.com.

Volunteer Opportunity: New Delivery Methods for Training

URISA has established a reputation and expectation for delivering quality educational offerings such as peer reviewed classroom workshops. In order to ensure that we continue to meet this expectation, we are seeking volunteers to be part of a small group of other interested URISA members who will be tasked with identifying new methods for delivering training to our members as well as the broader geospatial community. The group is anticipated to be active from May through October 2018.

Specific tasks:
• Review existing URISA training materials and methods
• Review training methods and fee structures of other organizations (e.g. self-directed online, webinar, etc.)
• Identify delivery methods that URISA should consider adopting in order to better meet its mission
• Identify technologies that should be considered for delivery of training (e.g. Zoom, Adobe Connect, GoToWebinar, etc)
• Produce a report that identifies:
  • Recommendations for delivery methods
  • Recommendations for training technology
  • Recommendations for training cost and fee structures for training

If you are interested in being part of this workgroup, please fill out this form by May 7.
Driving through the desert an hour outside of Joshua Tree National Park, the first stop of a whirlwind Spring Break last month that would eventually lead to Palm Springs for the GIS-Pro & CalGIS 2018 planning/program meeting the following weekend, was when I got the call that my brother had unexpectedly passed away.

As we made our way through the park with no cell service, no outside communication, we focused on and took in the wonders this very unique and Mars-like world. Through the love of all things geo (geography, geologic, geomorphology, and so on) …experiencing the park at that time from its vast micro habitats and landscapes, broke through the numbness of the news I had just received and allowed me to take a deeper breath and reflect on the significance, deep appreciation and definition of family in our lives. Three hours later, as we finally emerged from the Park when the first cell tower came into sight, is when my phone and email began pinging with sincere presence from a family that I got to choose to be a part of, the URISA International “Family.” Through the years of my involvement in URISA I have found that this “family” means that you have folks from all over the nation and internationally that you can count on beyond professional connections. URISA members value the work of our peers, help find each other jobs, provide teaming opportunities, share resources, look forward to seeing our friends at events and support each other in difficult times.

Folks are always asking what are the benefits of URISA, I can tell you personally the benefits are not always at first glance tangible, there are benefits that are not definable in a drop-down list on a website. Benefits include the experiences that you bring and that others bring to you. At this stage in my career, I have been part of many professional organizations, as a member and in leadership positions, and have never had the truest genuine personal and professional growth opportunities which were present from the first time I attended a URISA conference and said “yes” to this organization.

The uniqueness of URISA is that our members are unique and diversified and this connects you with knowledge and experiences outside of your daily norm; it is global, it is regional and local, all at the same time.

Here is just a glimpse of some of the URISA family lore…you can also find a few on our website testimonials [http://www.urisa.org/].

Vikings? Who knew we are actually related? Genealogy buffs- connecting our past. Carl Anderson and Teresa have a common ancestor- King of Denmark and Norway- Harald “Bluetooth” Gormsson.

– Wendy Nelson

When Worlds Collide…

Hilary Perkins knows my love of the Dave Matthews Band and while at the APA conference in New Orleans snapped this photo and tagged me on twitter.

– Keri Brennan

continued on page 12
A smaller world…
I had been to “other conferences”. It was an ocean of people, and I felt like a little rowboat, in the middle of a fleet of giant cargo ships. Sure, I was able to meet other folks, that I already knew, at local meet-ups, but otherwise, I felt anonymous, almost lost. Then, I decided to attend the URISA Annual Conference (GIS-Pro) in Orlando in 2010. It was a smaller conference, but, it had sessions that I could relate to, and strangers were open to talking about issues big and small. I felt like my own cargo ship. I was finally in more comfortable seas. After 2010, I have attended GIS-Pro like others attend family reunions. I am grateful for the friends and passionate colleagues that I have met, from all over the world, through URISA. Every year, I learn something or meet someone that is “invaluable” to my professional development. I am constantly surprised by how small the world becomes, once you have gone out to embrace it. The world would be a lot bigger without URISA.

– Stephen Berry

How can you build the benefits and value you get from the URISA family? If you haven’t joined or found a place to engage yet, I encourage you to volunteer, be a mentor or mentee, sponsor, attend a URISA workshop or event, participate at your local chapter and reach out to our current members and leadership.

Just Posted!
Take some time to review a packed GIS-Pro & CalGIS 2018 program.

Start with comprehensive workshop and training opportunities, the keynote addresses, professional development and networking events, and the abundance of concurrent breakout sessions in several focused program tracks:

- GIS Leadership & Management
- Data Driven (aka Smart) Communities
- GIS for Natural Resources
- GIS for NextGen 9-1-1 & Emergency Response
- GIS Supporting Health & Human Services
- Inspiring the Future of GIS
- Geospatial Technology Innovations

The entire program is online. Registration and exhibit/sponsorship opportunities are on the way.

The first URISA GIS Leadership Academy of the year was in Columbus and it was phenomenal. Thank you to the Ohio URISA Chapter for the hospitality!

Thanks also to our faculty: Ashley Hitt, Carl Anderson, Allen Ibaugh, Brett Horr, and Rebecca Somers and to the always-inspirational URI-SA GISCorps founder, Shoreh Elhami, for the closing message.

One of the GIS Leadership Academy attendees in Columbus said:

‘This was the best training I’ve ever attended. Ever.’

GLA attendees are clever: “You can’t spell GENIUS without G-I-S!”

Meet the latest graduates:

Columbus, Ohio GIS Leadership Academy Class

Don’t miss the second opportunity to attend the URISA GIS Leadership Academy in 2018. We’re heading to Salt Lake City in late July.

The class is already two-thirds full, so don’t delay. Make your plans today!
GISCorps (www.giscorps.org) is run by volunteers with the support of its parent organization, the Urban and Regional Information Systems Association (URISA). However, its operations depend entirely on donations from allied organizations and individual support from people like you. DONATE HERE!

What is URISA’s GISCorps?

GISCorps is Volunteerism

GISCorps is a passionate team of volunteers and leaders in the geospatial industry who are dedicated to service to the global community. There are over 5,000 GISCorps volunteers, from 133 countries, world-wide, ready to respond to requests for technical assistance. A core group of volunteer leaders organize and assign these volunteers to projects based on need and skill sets. Using tools that include OpenStreetMap and Esri’s ArcGIS Online, these volunteers help respond to natural and man-made disasters, assist in community building, and support sustainability for underserved and underdeveloped communities. —222 projects completed and counting!

GISCorps is Disaster Recovery

GISCorps participates in projects that assist in the assessment and recovery operations from natural and man-made disasters. From hurricanes and earthquakes to epidemics and homelessness, GISCorps volunteers provide innovative support and GIS services to national, local, and regional government agencies, as well as to NGOs and non-profits.

GISCorps is Community-Building

GISCorps lends its support to programs that create stronger communities. Projects have included blight analysis, site analysis, and assisting in the building of geospatial capacity for organizations that are working to build a more compassionate and just world.

GISCorps is Sustainability

GISCorps leads geospatial projects that enhance the capabilities of governments, private and non-profit organizations, and grassroots groups to tackle the challenges of a planet that offers limited resources to growing populations. GISCorps has assisted on projects that address food scarcity, climate change, and education across the globe.

URISA is a 501c(3) charitable organization. Contributions are tax-deductible in the U.S. Please donate today!
Mobile Government Strategy: Take GIS to the Field and Back

Turn a routine data collection expedition into a data goldmine with GIS. From the very moment that your crew heads into the field, geo-powered data guides and simplifies their tasks. Data collection is exact and instantly useful back in the office. A perfect suite of apps, all working together to make your field operations smooth and efficient.

Next time, send your field crew out with ArcGIS, the mapping and analytics platform with a mobile strategy built in.

Learn more about building a government strategy with GIS at go.esri.com/URISA-mobile.
Welcome New URISA Members

Kathleen Brenkert, GISP—City of North Charleston—North Charleston, SC
Alexia Brokop—Arcadis—Chicago, IL
Christina Bynum—Sun World International, LLC—Bakersfield, CA
William Carroll—Mississauga, ON Canada
Ricardo Contreras—University of Wisconsin—Los Angeles, CA
Dylan Coolbaugh—CivilTech Engineering, Inc.—Cypress, TX
Jaret Demcher—Gannett Fleming—King of Prussia, PA
Abdullah Diab—Rocky River, OH
Norm Diesman—Richmond Hill, GA
Wendy Dorman—Eastern Michigan University—Ypsilanti, MI
Carolee Doughty—Zekiah Technologies, Inc.—Arlington, VA
Emily Fisher—Tyler Technologies—Ann Arbor, MI
Jordan Hamm—SD1—Erlanger, KY
David Hoff—Forsyth County—Cumming, GA
Eric Huntley—Massachusetts Institute of Technology—Cambridge, MA
Nancy Johnston—Apex Software—San Antonio, TX
Danielle Journey—Murphy, TX
Todd Kelvington—ONEOK, Inc.—Tulsa, OK
Glen Kilian—County of Grande Prairie—Clairmont, AB Canada
Hyunjin Kim—Z-Geoinfo, Inc.—Timonium, MD
Kerri Kisko—State of California—Sacramento, CA
Wendy Kramer—INCOG—Tulsa, OK
Anna Kulesza—McMaster University—Hamilton, ON Canada
Marisa Laderach—Beckett & Raeder, Inc.—Ann Arbor, MI
Mary Latiolais, GISP—MDA Information Systems, Inc.—New Orleans, LA
Steven Lehr—Embry-Riddle Aeronautical University—Port Orange, FL
Ko Ko Lwin—Tokyo, Japan
William Mast, GISP—Pikes Peak Community College—Colorado Springs, CO
Kimberly Mauch—Placer County Water Agency—Auburn, CA
Jeffrey May, GISP—Idaho Dept. of Fish & Game—Boise, ID
Mason McCord—Clark County—Winchester, KY
William Mellman—Clairmont County Ohio Water Resources—Cincinnati, OH
Kristen Milburn—County of Grande Prairie—Clairmont, AB Canada
Kyle Mullen—Bolton and Menk—Mankato, MN
David Norris—The Kirwan Institute at Ohio State—Columbus, OH
Heather Nunn, GISP—Langan Engineering—Perkasie, PA
Bryan Parent—Los Angeles, CA
Christina Parker—Powder Springs, GA
April Pearce, MPA, MPH—Jefferson County – Alabama—Birmingham, AL
Timothy Poe, GISP—Georgia Department of Transportation—Atlanta, GA
Andrew Pollock—City of Saint John—Saint John, NB Canada
Solomon Pulapkura, GISP—VESTRA Resources Inc—Redding, CA
Shriya Rangarajan—Cornell University—Ithaca, NY
John Rowles—Canada
Vilasini Shrinivasan—Atkins North America, Inc.—Las Vegas, NV
Benjamin Silvernail—Falls Church, VA
John Strain—San Dimas, CA
Timothy Tabor, GISP—Power Engineers—West St. Paul, MN
Kenneth Thompson—Delaware Valley Regional Planning Commission—West Chester, PA
Jacob Tittle, GISP—Johnson City Water & Sewer Services—Johnson City, TN
Pam van der Leeden—LSA Inc—Morgan Hill, CA
Katherine Wright—LJB—Miamisburg, OH

New URISA Government Agency Members

City of Commerce City—Commerce City, CO
Jaime Giesen, GISP
Cinda Murdock
Jasmine Ramos

County of Grande Prairie—Clairmont, AB Canada
Tracy Archibald
Claire Bibby
Cityworks

Cityworks provides users with a web GIS-centric solution that helps them manage, track, and analyze your infrastructure maintenance and risk assessment. Cityworks includes an integrated permitting and community services management system to include activities done across residential, commercial, and other community infrastructure.

Since 1996, Cityworks | Azteca Systems, LLC has created and designed public asset management software for cities, counties, utilities, and authorities (i.e. local government). Cityworks pioneered the web GIS-centric paradigm and approach for public asset management to help organizations improve service and maintain the public infrastructure. Cityworks is a major software system used by organizations throughout North America and Internationally for managing utilities, public works, parks, planning and development, and airports. Daily, Cityworks is used by over 40,000 public sector employees to service and maintain the vital public assets for communities with a combined population of more than 80 million people.

For more information please go to cityworks.com

Esri

380 New York St, Redlands, CA 92373
Phone: (909) 793-2853
info@esri.com

Since 1969, Esri™ has been helping organizations map and model our world. Esri’s GIS software tools and methodologies enable them to effectively analyze and manage their geographic information and make better decisions. They are supported by our experienced and knowledgeable staff and extensive network of business partners and international distributors.

A full-service GIS company, Esri supports the implementation of GIS technology on the desktop, servers, online services, and mobile devices. These GIS solutions are flexible, customizable, and easy to use.

Esri software is used by hundreds of thousands of organizations who apply GIS to solve problems and make our world a better place to live. We pay close attention to our users to ensure they have the best tools possible to accomplish their missions. A comprehensive suite of training options offered worldwide helps our users fully leverage their GIS. Esri is a socially conscious business, actively supporting organizations involved in education, conservation, sustainable development, and humanitarian affairs.

Gold Corporate Partners

UPGRADED PARTNER LEVEL FOR 2018!
Michael Baker International

Since 1940, Michael Baker International has built its global legacy – and full continuum of solutions – on a diverse culture of innovation.

Solving our clients’ most complex challenges often requires new ideas, new processes, new technologies – new solutions where none existed previously. Our success always has drawn on the collaborative creativity of our dedicated employees, who leverage our diverse backgrounds, expertise, experience and can-do attitudes to make the communities we serve safer, more accessible, more environmentally sustainable, and more livable.

The result: a growing portfolio of exclusive innovations at Michael Baker that add significant dimension and value to our ability to deliver our full continuum of solutions. Michael Baker innovations – and the innovators behind them – serve as game-changing differentiators in the industry and demonstrate once again how we Make a Difference for our clients and the communities we serve.

- A suite of products and services to support the NG9-1-1 call-routing environment

Michael Baker International’s DataMark suite of software solutions and services support public safety answering points (PSAPs) and their GIS stakeholders in this mission critical transition. DataMark solves upgrade challenges, helps improve public-safety communications and ensures the data meets the precise NG9-1-1 requirements. The software considers all aspects of the data that is provisioned to a NG9-1-1 system (data creation, clean up, quality and maintenance workflows). With extensive expertise in GIS and public safety, Michael Baker can help GIS departments determine what they need to do in order to support NG9-1-1.

- GIS-based mobile app for managing infrastructure assets

Michael Baker International engineers created a mobile phone-based computer software platform, MICAP (Mobile Infraction Capture) to collect and analyze data and images over broad geographic areas to help monitor utility equipment for changes and compliance problems. The GIS-based MICAP platform provides access to licensed data, as well as the collection and analysis of new data and images, delivering an improved workflow interface for managing assessments, repairs, and geographic changes to infrastructure assets. It is designed for state agencies, municipalities, utility companies, land developers and other engineering firms that need to effectively monitor and manage utility poles, underground cables, utility pipelines, bridges, runway infrastructure and other assets. MICAP is free and available via the App Store and Google Play.

- Local watershed assessment at the push of a button

iWATR (Integrated Watershed Assessment Tool for Restoration) is a mobile app-based innovation developed by Michael Baker International’s water services team to add speed, capability – and value

For information about URISA Partnership, please visit:
to provide an easy-to-use assessment tool for any city, county or state planner across the U.S. to develop or better manage local land. The app combines GPS features and data from the U.S. Environmental Protection Agency and other government sources, to compile local data at the push of a few buttons. It tabulates a comprehensive assessment, and provides several solution options with cost estimates to solve specific water quality-impairment problems in watershed areas.

- Analyzing bridge data with ease

iUSBridges, is a geographic information system (GIS)-based app that allows users to locate nearby bridges, explore details of those bridges, save information on favorite bridges, and share feedback. iUSBridges uses data retrieved from the Federal Highway Administration’s (FHWA) National Bridge Inventory. State departments of transportation provide updated bridge information on a cyclical basis to the FHWA.

For more information, click here.

**Silver Corporate Partners**

**Cyclomedia Technology, Inc.**

1250 I-Newell Ave., Suite 160
Walnut Creek, CA 94596
Phone: 800-790-3652
Email: usa@cyclomedia.com
www.cyclomedia.com
www.thedrivingdutchman.com

Cyclomedia is the market leader in systematic imaging of large-scale environments from cities to complete countries. Cyclomedia’s smart imagery solution creates Cycloramas – 360-degree panoramic photos – with high accuracy, providing current and clear views of street-level environments.

The Cyclomedia recording system is like no other. It uses patented technology to determine the exact position and orientation of every picture taken. By creating a dense network of geometric street images, Cycloramas are always focused on the correct address or feature from multiple vantage points.

Our solution revolutionizes the way asset and property assessment is managed and reported. It reduces field visits and provides accurate feature measurements with convenient spot-checking. It simplifies maintenance and enables automated inventory and controlled processes. It also saves valuable resources while simplifying the decision-making process, improving operations and increasing efficiency.

We provide ready-made solutions throughout Europe, North America, and Asia. Our technology is widely used in government GIS, public safety, and security markets, as well as in construction, infrastructure management, and insurance.

We provide a full range of services related to 3D mobile mapping. Data is captured and delivered worldwide.

Our primary market segments include:
- Property Taxation, Appraisal, and Building Inspection
- Transportation and Infrastructure Management
- Public Safety and Homeland Security
- Engineering and Construction Planning

Cyclomedia offers the following licensed products:

- **Content**
  - Cycloramas – Seamless, accurate 360° panos taken at street-level with our patented recording technology.

- **Viewer Software**
  - GlobeSpotter – Our feature-rich web app for viewing Cycloramas that runs on any browser supporting Flash.

- **Hosting Solutions**
  - GlobeSpotter Cloud – Secure, scalable hosting service managed by Cyclomedia that’s free to customers.
  - GlobeSpotter Server – Locally hosted option supporting all Cyclomedia’s content and software.

- **Developer Tools**
  - GlobeSpotter API – Integrate GlobeSpotter components into your user’s existing business workflow.
  - Panoramic Rendering Service – Extract pictures for reports and texture map buildings with Cycloramas

**Data Transfer Solutions**

3680 Avalon Park Blvd East, Suite 200, Orlando, FL 32828
Phone: (407) 382-5222
aibaugh@dtsgis.com

Headquartered in Orlando, DTS is a leader in asset management, geographic information systems, and transportation planning. We specialize in creating solutions to help clients automate their worlds, reduce their workload and organize their data through customized technology.

DTS is comprised of seven divisions, each with its own scope of services. Often however, a single project spans several divisions before completion because we uniquely offer all the necessary cutting-edge services, integrated within one company.

**EagleView Technologies**

3700 Monte Villa Pkwy, Ste 200
Bothell, WA 98021
1-855-984-6590

EagleView Technologies offers Pictometry® Intelligent Images®. The high-resolution oblique and ortho images are captured and processed with patented technology and delivered through innovative analytical tools to allow for the most accurate assessment of properties.

Used daily by GIS, assessment, public safety, defense, insurance, construction and utility professionals, Pictometry solutions bring field work to the desktop. Solutions are easily integrated into existing workflows through strategic partnerships and make it easy for users to make informed decisions and enhance productivity. To find out more please visit www.eagleview.com

Every day, new applications for Pictometry are realized. Discover how Pictometry can help you work better, faster, smarter and with optimal cost savings.

**Bronze Corporate Partners**

**Clark Nexsen**

Our clients leverage our expertise and rely on our long history of proven performance to develop geo-related solutions, including Geographic Information Services, GPS survey and map grade data collection, geo-enabled photogrammetry, aerial imagery analysis and process-
ing, and cloud mapping.

As a trusted partner, we collaborate with our clients to identify their goals and deliver solutions and products that exceed expectations. Our team’s cutting-edge technical capabilities meet the emerging survey, mapping, data collection, and application development needs of our clients, building on a strong foundation of experience and proven ability to perform and execute multiple, simultaneous task orders.

Learn more: Featured Projects

GeoDecisions

Since 1986, GeoDecisions has partnered with clients throughout the U.S. and abroad to design, develop, and deploy leading edge, disruptive GIS tools and applications that improve decision-making. Backed by Gannett Fleming, our rock-solid engineering parent company established in 1915, we combine the best talent and resources from across our firm to deliver the best business solutions.

Planning, budgeting, managing assets and data, and optimizing resources are critically important in today’s global economy. At GeoDecisions, we provide the data management and mapping technology tools and products that help clients successfully navigate change. Our geospatial information technology (IT) offerings empower organizations to make more informed business decisions and improve their bottom line.

Partnering with industry leaders such as Esri, our turnkey approach encompasses strategic planning and implementation design all the way through system integration and testing. Our foundation for success is based on the belief that the true power of GIS lies in the integration of diverse information technologies, data formats, and systems. From cloud computing and mobile technologies to Software-as-a-Service (SaaS) offerings built on the Esri® platform, our location-based IT solutions provide next-generation reporting, visibility, and analytics.

GeoDecisions believes that all IT projects require vision and considerable leadership to be completed successfully, on time, and on budget. By championing a philosophy vested in partnering, collaboration, and shared goals, GeoDecisions’ staff makes every effort to work with all parties who will use a system. We strive to recommend the best-fit solutions for our clients, based on the balance of available funding and personnel versus desired functionality.

GeoDecisions is ISO 9001:2008-certified and employs more than 80 IT and geographic information system (GIS) professionals operating out of 9 offices. Our staff is engaged in IT consulting and in the design, development, and deployment of data repositories and geospatial and Web-enabled information management systems. GeoDecisions IT solutions are flexible, scalable, and reusable.

Our business specialties benefit the logistics and fleet management, insurance and financial, municipal and facility asset management, transportation, and utility markets.

Our team includes subject matter experts with advanced certifications who keep their fingers on the pulse of geospatial technology. Through industry leadership, ongoing training, and a unique blend of talent, GeoDecisions professionals work to exceed client expectations every day. Our vision identifies and mitigates risk, resulting in more effective project collaboration, on-time delivery, and success.

Evari GIS Consulting

Evari GIS Consulting, Inc. (Evari) was founded in 2009 with the mission of providing high quality, custom GIS solutions for municipal projects. Evari has a wide array of project experience supporting municipalities, utilities, and energy service companies, providing As-Needed GIS support for Transportation, Civil Engineering, Storm Water, Undergrounding Master Planning, Street Lighting and Planning projects. Evari is driven to innovate, employing GIS to streamline data management, empower field crews with mobile GIS technology, and facilitate Smart City, IoT solutions. With a focus on producing clear, accurate and valuable data, maps and figures, Evari’s provides its clients with effective decision-making and project communication tools. Evari leverages the Esri Technology Stack (ArcGIS) and the Amazon Web Services Cloud Computing platform for a broad range of municipal GIS applications.

VESTRA

5300 Aviation Drive, Redding, CA 96002
Phone: (530) 223-2585
MBraghin@Vestra.com

As a leader in GIS/IT, Environmental Solutions, Engineering, and Surveying, VESTRA has the depth of know-how and experience to help clients achieve success. VESTRA, an employee-owned corporation dating back to 1988, prides itself on our local presence and commitment to the community. Our mission is to be our clients’ most-valued consultant by providing cost-effective, innovative, and technically superior project solutions. Whatever your current or future needs, VESTRA’s full-service resources are available to support you on your next critical project.

Business Partners

Applied Ecology, Inc.

Located in Brevard County, Applied Ecology is knowledgeable and experienced in working with clients in the central and south Florida area. Our location has allowed us to be highly involved in the Indian River Lagoon TDML process, and preserving some of the most precious natural resources of the Tampa Bay and Indian River Lagoon estuaries. We serve municipalities and other businesses that cater to public clients and are experts in their fields. Applied Ecology, Inc. is a small, woman-owned business with 40 years of combined specialized experience in:
- GIS
- Remote sensing
- Project management
- Complex data and database management
- Statistical analyses
- Software tool development

We focus on serving public clients in:
- Environmental resource management
- Ecological studies
- Water resources
- Stormwater management
- Utilities
Bad Elf

AFFORDABLE GPS SOLUTIONS. COMPREHENSIVE INDUSTRY SUPPORT.

Bad Elf specializes in the design and manufacture of affordable and reliable high-performance GNSS receivers for GIS mapping and field data collection. All of our products are lightweight, portable, and provide a battery life of twenty-four hours for a full day of data collection activities. Our complete product line offers a range of capabilities and accuracy (from 2.5 meters to 1 meter) to match your requirements.

Bad Elf products work seamlessly with most GIS and mapping apps in the iTunes App Store or the Google Play Store. Bad Elf also supports Android and Windows devices, providing streaming location data in standard NMEA sentences.

Our Bluetooth GNSS Surveyor provides high-accuracy (~1 meter), multi-constellation support (GPS, GLONASS, QZSS), SBAS (WAAS/EGNOS/MSAS), and universal Bluetooth connectivity (iOS, Android, Windows). The free Bad Elf Utility app for iOS includes DGPS and post-processing workflows.

We are forging strong relationships with GIS app developers taking advantage of our products’ advanced hardware features thru our Bad Elf Developer program. There are no restrictions on how you use your data. We believe in open standards. Any device that can connect to a Bad Elf GNSS receiver via Bluetooth will be able to consume data directly from our GNSS accessories. Your data. Your way.

Geocove

Geocove helps agencies solve the problem of where. Geocove provides spatial technology solutions to government agencies and utilities to help them collect, manage, visualize and share information. We provide insight into problems and solutions for decision makers, users and the public. We also make seriously cool map apps. So how does your GIS program work for you? info@geocove.com.

GeoTechVision

With offices in Kingston, Jamaica (876-970-5686) and Georgetown, Guyana (592-227-0433) www.geotechvision.com

GeoTechVision focuses on “Delivering Value through Innovative Solutions!” We have been assisting Caribbean Businesses, Agencies and Government Ministries to develop and effectively use spatial intelligence in critical decision making! We are very involved with establishing Geographic Information Systems, GPS and Mobility products and solutions, as well as marketing our own “GeO” brand tablet. We consider Human Capacity Building as very critical - right from the classroom to the work environment. Hence our Classroom Management Solution and our strong focus on Training and Development in all our engagements. Our other consulting services include Project Management, Information Security Advisory, Process Audit and Assurance, Business Analysis and Enterprise GIS solution planning and Implementation.

Infrastructure Mapping and Autonomy

We leverage technology developed by our autonomous vehicle mapping partner for rapid LiDAR processing and map production.

Infrastructure Mapping and Autonomy was created out of the Heavy Industry of Civil Maps an industry-leading artificial intelligence company, providing LiDAR processing and feature extraction services. Our technology was first developed to meet the high accuracy, 3D mapping needs of the autonomous vehicle industry. IMA is now bringing this technology to the engineering and infrastructure industries.

Our technology allows us to scan, map and report on assets or asset areas at a rapid pace and affordable cost not possible before. Leveraging our proprietary artificial intelligence, patented cloud based processing technology, and global relationships for LiDAR collection and processing and quality control, we can generate data sets, models and change detection reports 10x faster than with traditional methods.

By creating HD 3D maps in the earliest stages of projects, our clients are able to increase the NVP of projects by lowering the time to completion and reducing and deferring survey programs until the later stages of a project. Additionally, clients with existing assets to manage benefit from our centralized on-line business-to-business services to manage their rapid feature extraction and mapping programs. Eliminating the inefficient traditional person to person sales and manual data handling processes. Our al-a-carte on-line tools allow asset owners to individually direct and manage their mapping projects, resulting in quicker turnaround times and lower costs overall.

RFP Distribution

URISA members, remember that URISA will distribute your RFP/RFQ announcements to our corporate and business members at no charge. Simply email your announcement to info@urisa.org (Subject: RFP Service) and we’ll send it right out for you!
MGP

701 Lee Street Suite 1020
Des Plaines, IL 60016
Tel: (847) 656-5698
info@mgpin.com
www.mgpin.com

MGP is an information systems services company that specializes in geo-spatial solutions. Our comprehensive range of geographic, data modeling, and business process solutions provide you new opportunities to find a better way. We believe that innovation creates opportunity and collaboration breeds success. MGP was formed as a shared business model in which clients are partners. This philosophy enables significant cost savings and makes it possible for any client, regardless of size, to get where they need to go. MGP is the managing partner of the GIS Consortium.

Planning Communities, LLC

9131 Anson Way, Suite 304
Raleigh, North Carolina 27615
919-803-6862 (Office)
919-882-1206 (Fax)
contactus@planningcommunities.com
ttowsend@planningcommunities.com

Planning Communities, LLC provides a wide range of multi-disciplinary planning services for local, state and federal agencies, tribal nations and community organizations. Community, transportation, environmental and GIS services include local/regional planning, visioning/scenario planning, land use, socioeconomic, market and cost-benefit analysis, community asset mapping, tool/application support and development, process improvement/integration, consensus-building and facilitation.

Headquartered in Raleigh, North Carolina, Planning Communities has additional offices in Charlotte (NC) and Seattle (WA). Planning Communities is a North Carolina certified Small Professional Service Firm (SPSF) and is certified as a DBE in North Carolina, Tennessee, Florida and Delaware.

Solv3D, Inc.

Solv3D creates tools that enable people to effectively use large 3D point clouds and immersive imagery within their existing workflows. Using the 3DPointLogic™ toolkit, individuals can easily turn massive point clouds into manageable data sets. With the SiteVisit360™ collaborative platform, companies can merge 3D point cloud data, panoramic imagery and other photography, resulting in a virtual project environment, allowing them to more effectively leverage the value of their datasets for estimation, planning, design, and decision-making.

Spatial Relationships, LLC

800 Boylston St #990756
Boston MA 02199
(857) 400-8920
Contact:
Kathryn Brewer
James Armstrong

Spatial Relationships, LLC is a consulting firm that provides on-demand teams of expert Geospatial Professionals to ensure organizations have the capability to deliver on existing and future goals, manage business risk, and increase profitability.

Think of us as your geospatial concierge. Our “concierge services” provide resources and solutions for planned or abrupt disruptions as well as future projects. These can include:
- Being a key person down – planned leave or unexpected departure
- Technical requirements – fill skills, knowledge and training gaps
- Budget constraints – less than anticipated funds for the same scope of work
- Capacity constraints – completing urgent priorities for overbooked staff

Spatial Relationships, LLC was born out of the necessity to create new flexible and affordable ways to work that support organizations to manage ever-increasing demands as well as the need to support the community of Geospatial Professionals.

USC Spatial Sciences Institute

Since its founding in 2010, the USC Spatial Sciences Institute has been using the power of spatial thinking and literacy – the ability to connect place and space – to help address global challenges, including those connected with population growth, urbanization, environmental sustainability, and human well-being. Through its innovative academic programs, the Spatial Sciences Institute educates and trains today’s leaders capable of deploying the “science of where” in every possible discipline and industry. Members of our internationally-recognized faculty contribute to the rapidly-evolving body of geospatial knowledge. From our home base in the USC Dornsife College of Letters, Arts and Sciences, we collaborate with faculty colleagues throughout the University of Southern California and with other prestigious institutions around the world on funded research that links SSI faculty and students with decision makers and citizens and knowledge with action. We promote the analysis, modeling, and visualization of location-based data through interdisciplinary use-inspired and integrated research and teaching.

Roster of Academic Programs:
- B.S. in GeoDesign
- Spatial Studies minor
- Human Security and Geospatial Intelligence minor
- Online Graduate Programs in Geographic Information Science and Technology
- Graduate Certificate in Geographic Information Science and Technology
- Graduate Certificate in Geospatial Leadership
- Graduate Certificate in Geospatial Intelligence
- M.S. in Geographic Information Science and Technology
- M.S. in Spatial Informatics
- Ph.D. in Population, Health and Place

North Carolina State University - Center for Geospatial Analysis
- Master of Geospatial Information Science and Technology (MGIST)
- Graduate Certificate in Geospatial Information Science (GIS)

Lakeland Community College — Kirtland, OH
- Geography and Geospatial Technology - Associate of Applied Science and certificate programs
Mark Your Calendar!

**July 23-27, 2018**
URISA GIS Leadership Academy
Salt Lake City, Utah

**October 9-12, 2018**
GIS-Pro & CalGIS 2018
Palm Springs, California

**February 25-28, 2019**
2019 GIS/CAMA Technologies Conference
Portland, Oregon

---

**THE GIS PROFESSIONAL**
A publication of URISA

**URISA**
701 Lee Street, Suite 680
Des Plaines, IL 60016
Phone (847) 824-6300
Fax (847) 824-6363
info@urisa.org
www.urisa.org

**Submissions**
Editor – Judy Colby-George, AICP, Spatial Alternatives, Yarmouth, ME
Managing Editor – Wendy Nelson, URISA

---

**Keri Brennan, GISP — Michael Baker Intl. (Indianapolis, IN)**
kbrennangisp@gmail.com

**Lynn Dupont, GISP – Regional Planning Commission (New Orleans, LA)**
lldupont@norpc.org

**Corey Halford, GISP — City of Airdrie (Alberta Canada)**
Corey.Halford@airdrie.ca

**Brent Jones, PE, PLS — Esri (Vienna, VA)**
bjones@esri.com

**Robert (Robb) Kirkman, GISP — Metro (Portland, OR)**
robert.kirkman@oregonmetro.gov

**Michael (Glenn) O’Grady—Planning Commission (Encinitas, CA)**
mogrady@interserv.com

**CHAPTER ADVISORY BOARD REPRESENTATIVE (NONVOTING):**
Cindy Post, GISP—City of Leduc (Alberta Canada)
CPost@leduc.ca

---

**GIS-Pro & CalGIS 2018**
October 9-12, 2018
Palm Springs, California

---

**Save the Date!**