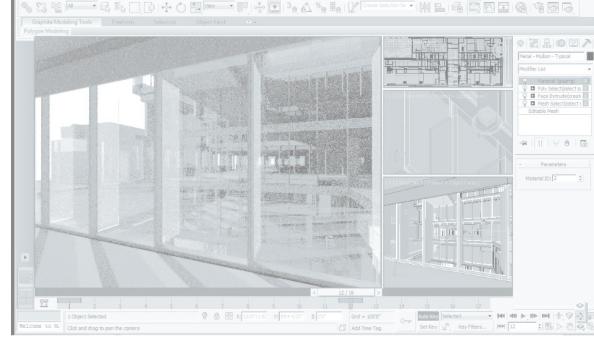
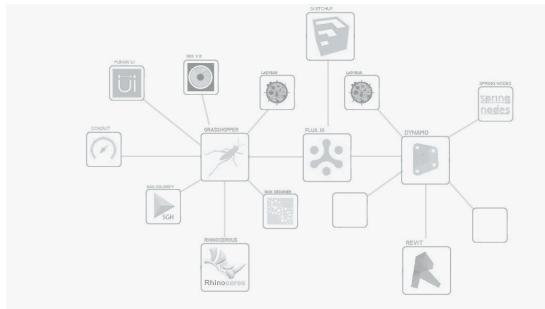




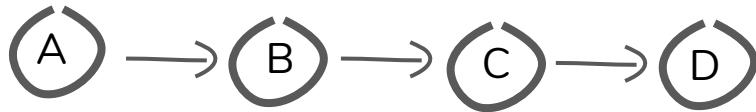
# Innovation at OBMI



# Innovation Avenues

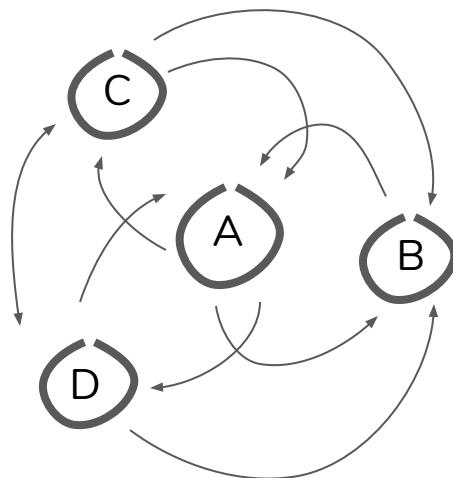
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# Culture of Innovation



How would you set about instilling a culture of innovation in our company both as a mindset and as a practical tool?

A great idea can come from anyone.



# Culture of Innovation



## Practical Tool

- Hackathons
- Innovation Ventures
- Innovation partnerships
- Power User Groups
- “Tech culture” tools



# Culture of Innovation



## Innovation mindset

### Think Big

Thinking small is a self-fulfilling prophecy. Leaders create and communicate a bold direction that inspires results. They think differently and look around corners for ways to serve customers.

### Learn and Be Curious

Leaders are never done learning and always seek to improve themselves. They are curious about new possibilities and act to explore them.



# Culture of Innovation



## Innovation mindset

### Think Big

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### Learn and Be Curious

Leaders are never done learning and always seek to improve themselves. They are curious about new possibilities and act to explore them.

### Insist on the Highest Standards

### Invent and Simplify

### Ownership

### Deliver Results



# Innovation Lab Tools



What tools would you envisage needing to kick off your “Innovation Lab” in OBMI?



# Innovation Lab Tools



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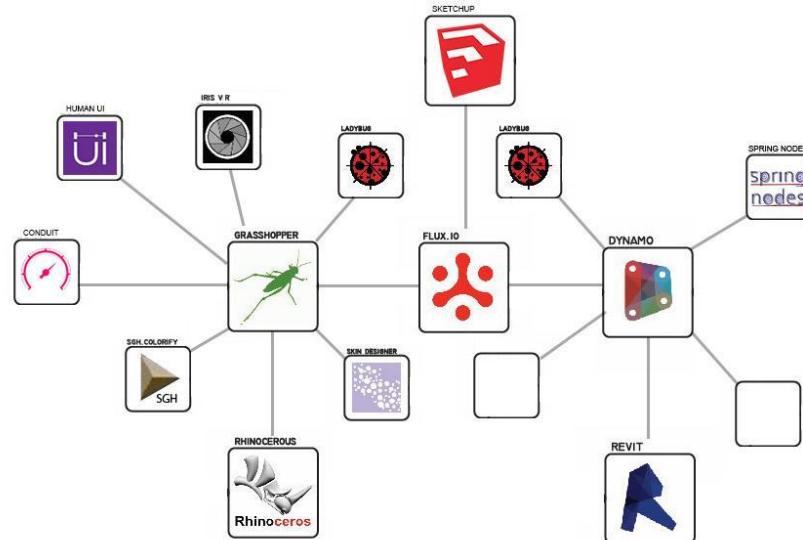


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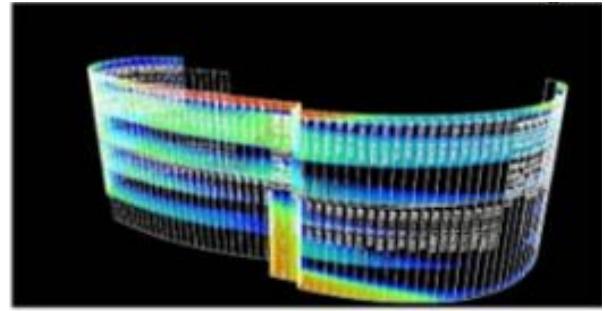
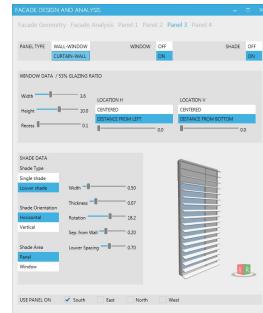


What tools would you envisage needing to kick off your “Innovation Lab” in OBMI?

# Innovation Research



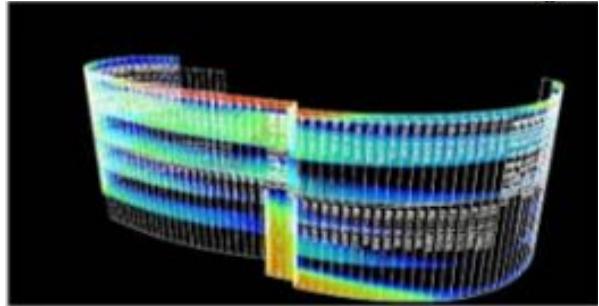
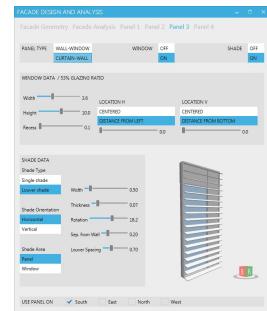
If you are targeting the involvement of existing staff, how would you balance the challenges the pressures of fee generation versus innovation development?



# Innovation Research

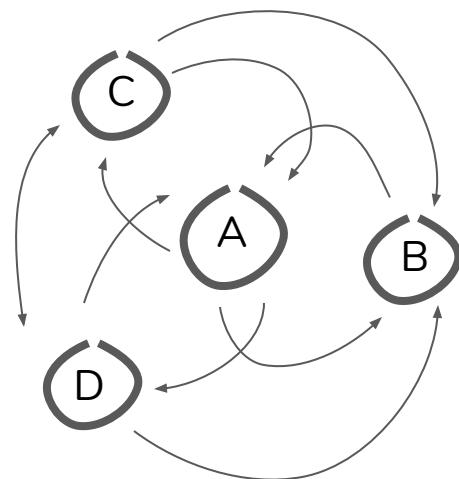


Do you see innovation research as an investment (sunk cost) for the future of the company short/medium term or do you see ways to translate innovation into a tangible opportunity for revenue generation?



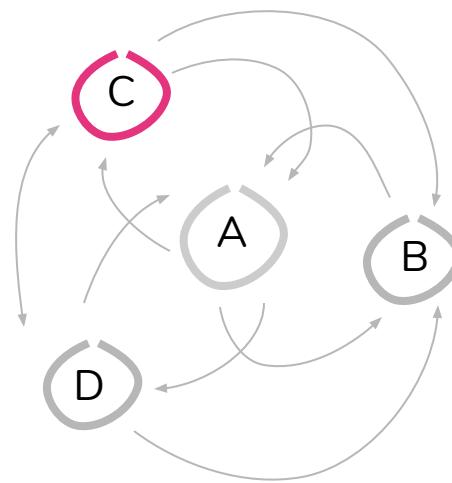


# Potential Avenues for Innovation



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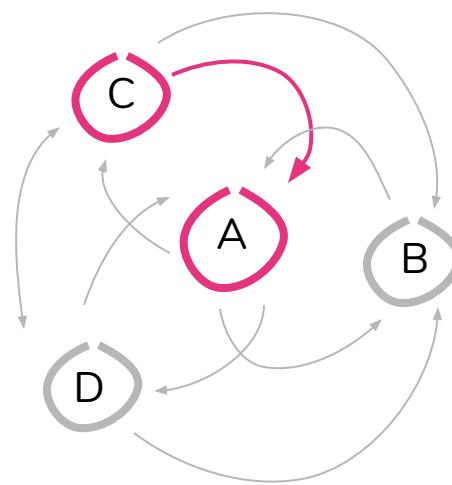
# Potential Avenues for Innovation



C

Relevant understanding and impact with respect to innovation in our clients' businesses.  
**Biophilia and Natural Light**

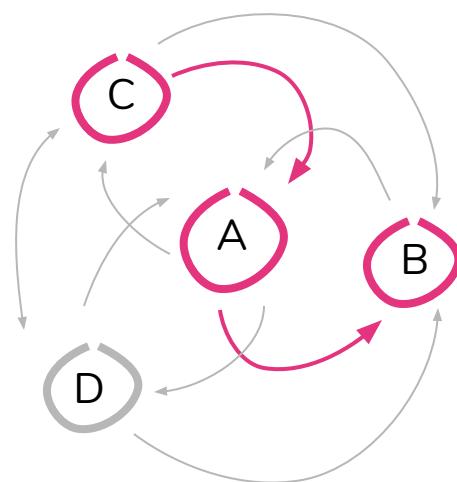
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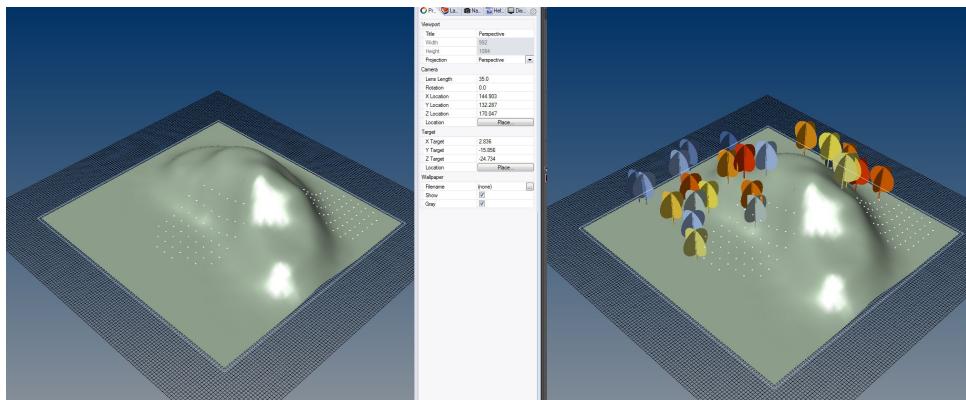
A Innovation in the way that we conduct our business internally.  
**Innovation tools**

# Potential Avenues for Innovation



- C Relevant understanding and impact with respect to innovation in our clients' businesses.  
**Biophilia and Natural Light**
- A Innovation in the way that we conduct our business internally.  
**Innovative design tools**
- B Innovation in the way we present our product to our clients.  
**Innovations in Rendering and VR:  
Real-time rendering of atmospheric effects to communicate resulting experience.**

# Potential Avenues for Innovation



A

Innovation in the way that we conduct our business internally.  
**Innovation tools**

# Potential Avenues for Innovation



B

Innovation in the way we present our product to our clients.

# Innovation

# Culture of Innovation



Hackathons



# Culture of Innovation



- Hackathons
- Innovation Ventures



# Culture of Innovation



- Hackathons
- Innovation Ventures
- Innovation partnerships



# Culture of Innovation



- Hackathons
- Innovation Ventures
- Innovation partnerships
- Power User Groups



# Potential Avenues for Innovation

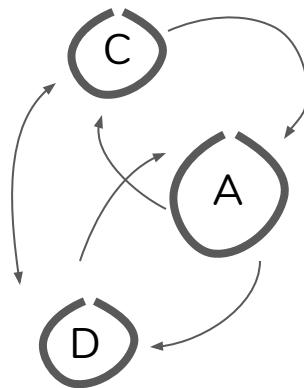
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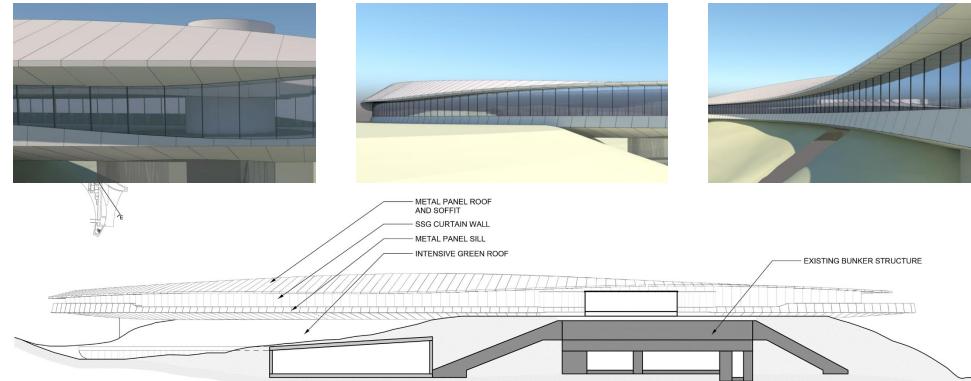
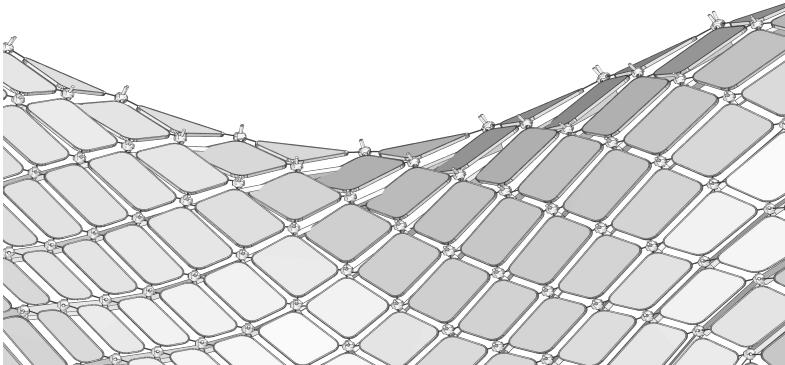
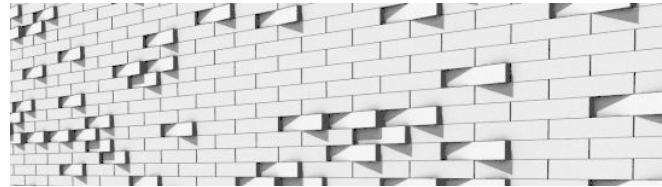
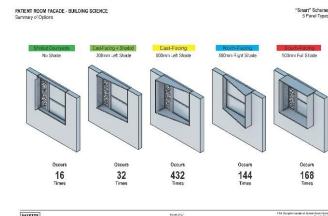
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# Innovation at OBMI

Visual Scripting & Tool Development for Project Design

Santiago Garay



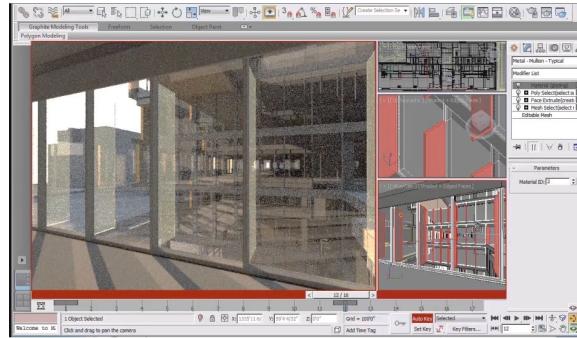
Imagery © PAYETTE



# Design + Interactivity

## VR / AR Interactive Tools Development

Santiago Garay



# Iterative Design

## Photo-Real 3D Workflows

Santiago Garay



Base terrace rendering



Terrace rendering with basic color correction



Terrace rendering with 'light painting' technique



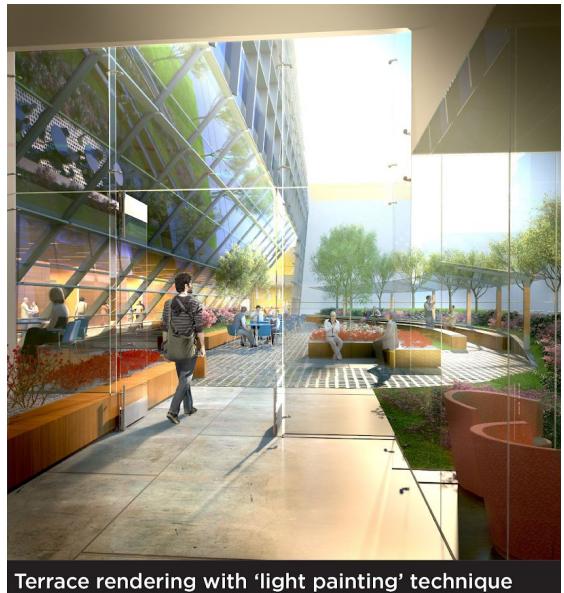
Base rendering



Rendering with basic color correction



Rendering with 'light painting' technique



Terrace rendering with 'light painting' technique

# Computational BIM

Visual Scripting & Tool Development for Revit Design & Documentation

Santiago Garay

Dynamo Player

REVIT

Excel

DYNAMO

COT\_MP\_Space\_Study.xlsx

Room	Facility Code	Facility Name	Room Number	Floor	Station City	Room Net Area	Type	Room Type Desc
1014 10001	1014	Well Hall	1	10001	0	234	21	STAIRCASES
1014 10003	1014	Well Hall	1	10003	0	234	21	STAIRCASES
1014 10004	1014	Well Hall	1	10004	0	234	21	STAIRCASES
1014 10005	1014	Well Hall	1	10005	0	234	21	STAIRCASES
1014 10007	1014	Well Hall	1	10007	0	276	21	PUBLIC TOILET
1014 10020	1014	Well Hall	1	10020	0	276	31	PUBLIC TOILET
1014 10021	1014	Well Hall	1	10021	0	287	31	PUBLIC TOILET
1014 10022	1014	Well Hall	1	10022	0	43	31	PUBLIC TOILET
1014 10040	1014	Well Hall	1	10040	0	173	29	CIRCULATION AREA
1014 10041	1014	Well Hall	1	10041	0	159	29	CIRCULATION AREA
2	1014 10042	1014	Well Hall	1	10042	0	4267	29 CIRCULATION AREA
3	1014 10043	1014	Well Hall	1	10043	0	181	24 LOBBY
4	1014 10044	1014	Well Hall	1	10044	0	618	29 CIRCULATION AREA
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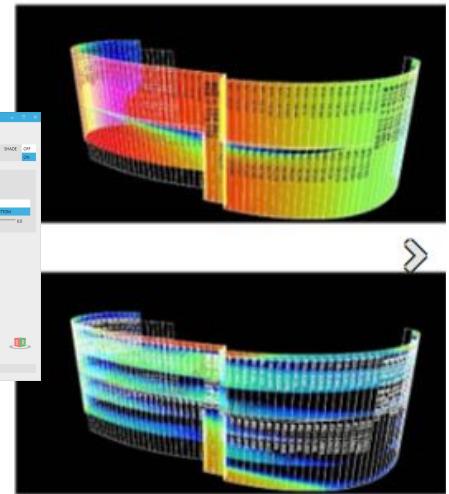
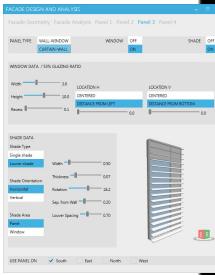
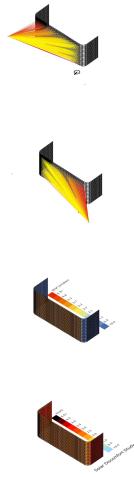
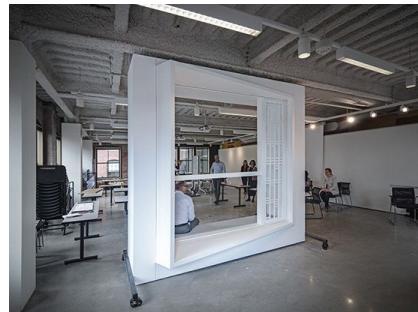
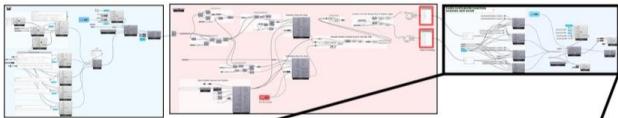
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# Design + Performance

## Performance-Driven Design Workflows & Tools

Santiago Garay

THE INTEGRATED MODEL



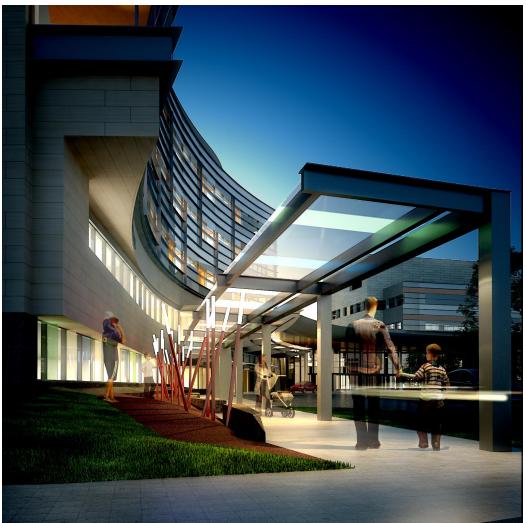


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Santiago Garay

University of Chicago Crear **Photo-real 3-d workflows**  
Penn State Hershey Medical Center **Computational BIM**

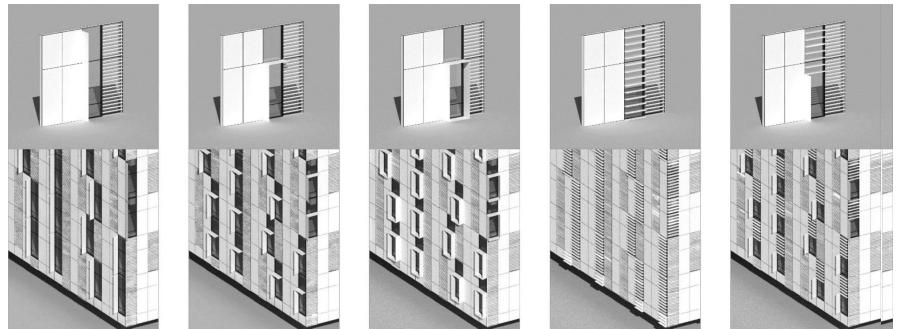


Imagery © PAYETTE



Northeastern ISEB Performance-Based Design  
Temple University Master Plan Photo-real 3-d Workflows  
XiangYa Virtual Mock-up Interactivity / VR

Santiago Garay



Imagery © PAYETTE



Imagery © PAYETTE



# Santiago Garay

## Design Technology Innovation

Santiago is a design technologist with more than 15 years of relevant experience in the architectural industry. He joined Payette in 2001 where he initially led the 3D Visualization group. He was later promoted to Head of Design Technology Innovation. During both of these roles, Santiago spearheaded the exploration and development of new design technology tools and systems. At the core of this effort, Santiago focused on the generation, integration and adoption of computational design tools and iterative 3-d workflows, as design automation, generative design and performance increasingly influence the way architects think and work. Recently, Santiago started his own practice to focus on assisting AEC firms and technology startups in the areas of VR/AR, computational design and 3-d visualization. Santiago has presented many of his projects and software tools at AEC conferences and Design Technology events.

Santiago received his B.Arch. from the University of Buenos Aires and his post-graduate Certificate in Applied Sciences with a software engineering concentration from Harvard University.