

Designing Innovation Spaces

Britta McKenna, Chief Innovation Officer



8:30-9:00 Welcome/Introductions

9-10:00 The journey to IN2

10-11:00 Tour of IMSA's innovation spaces

11:15-12:00 Maker Space Panel

12:00-12:30 Lunch

12:30-1:00 Break/Open Maker Time

1-3:30 Design Challenge

3:30-4:00 Share Back



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A bit about

IMSA

Illinois Legislative Charges

IMSA was established in 1985 by the Illinois General Assembly as part of the State's comprehensive educational reform package to address the critical need for citizens highly skilled in STEM fields. The Academy opened in 1986.

IMSA is governed by an appointed Board of Trustees and is funded by the Illinois legislature under the Illinois Board of Higher Education appropriation.

Legislative Charge #1

To provide an advanced academic and residential program for students of exceptional talent in mathematics and science.



Legislative Charge #2

To serve others as a catalyst to stimulate teaching and learning in mathematics and science throughout Illinois.



About IN2



"IN2" is a highly conceptual name that plays upon the idea of both innovation and inquiry—bridging businesses and the educational focus at IMSA. It also extends the current name assets at IMSA, metaphorically extending the mission.

It plays on the concept of bringing both innovation & inquiry into practice at IMSA and on the concept of what is put "into" the center to make things happen—ideas, intuition, exploration, knowledge, experimentation, etc.

It is short, memorable and easy to say. It leaves room for curiosity and play without having to explain too much.

The three lines composing the "2" represents the different journeys of students through time and the paths that come together at IMSA through innovative practices, inquisitive learning, and problem-solving processes.

3D walkthrough



LimeRed Studio

The Illinois Innovation Ecosystem





In2 timeline

2014 2017

2015 2016

design

naming/branding

fund raising (private)

(public 2016 and beyond)

construction

awareness

Open/evolves



Where did we start?

- 1. 2007 IMSA Strategic Plan
- 2. CoolHub
- 3. The Gift



- 4. PB&J Innovation Brown Bag lunch
- 5. IN2 Advisory Committee (adults)
- 6. Select Architects



and then what?

- 7. Design Charrette
- 8. Intersessions (3)
- 9. Design Process
- 10. Maker Squad
- 11. IN2 Advisory Committee (Students)
- 12. Naming/Branding



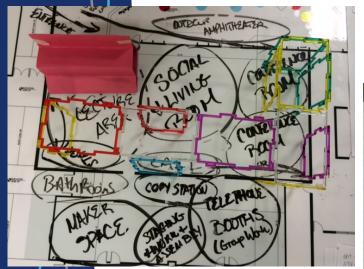
what came next?

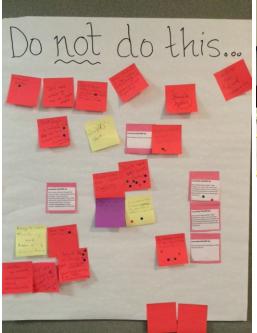
- 13. Programming
- 14. Fundraising
- 15. Job Descriptions, hiring and onboarding
- 16. Order equipment & prepare to open
- 17. Develop MVP
- 18. Open (fall 2016)



Design Charrette

August 2014









1871

Silicon Valley (Facebook, Twitter, Dropbox...)

State Farm Next Door (industry)

Chicago Public Library (Maker Space)

IIT Idea Lab

CIE – Chicago Innovation Exchange

MIT Media Lab (Boston)

Harvard Innovation Lab (Boston)

Northwestern University Garage

Greentown Labs (Boston)

Artists' Asylum (Boston)

Purdue (Foundry & Anvil)

Chicago - DMDII

University of Illinois Research Park

Rockford & Peoria Innovation spaces

seek inspiration





Twitter, Dropbox
Google, Avos
Exploratorium
Facebook, WeWork









Twitter

Takeaways: Internal hack days; branding; unique staff benefits;

Silicon Valley



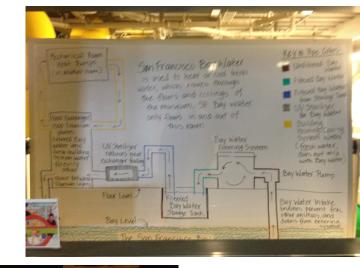




Exploratorium

Takeaways:

Engaging; fun; applied learning; Manipulatives; peek behind









Takeaways: teams; art inspired; edgey





Facebook



Creativity outlets; benefits



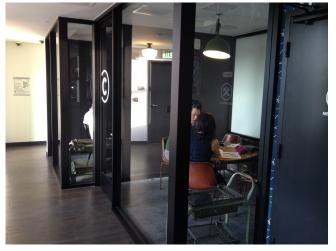




Avos

Takeaways: flexible open space; inexpensive options; toys & games; design and play with brand (colors)





Co-working Spaces (WeWork)



Takeaways: comfort; collaborative; amenity laiden; membership; phone booths; café; office station



Harvard Innovation Lab



Oblong





MIT Media Lab

Greentown Labs

Artists' Asylum





Artists' Asylum



HI – Harvard Innovation Lab – 10/1/14















HI – Harvard Innovation Lab – 10/1/14





Takeaways: Mobility, technology, experiential, community around food



Greentown Labs



Takeaways: focused vertical; sponsored community



MIT Media Lab













MNCSA



Jump Simulation

Thermo Fisher Scientific

Blue Waters Petascale Computing



Regional



Caterpillar Visitor's Center Peoria, IL



Woodward Aerospace Rockford, IL

University of Illinois EnterpriseWorks

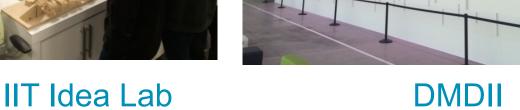


Chicago









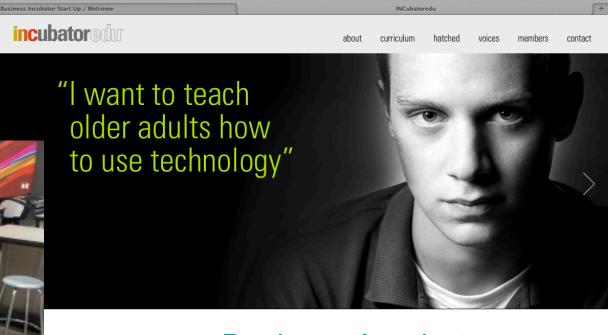






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Business Incubator Barrington High School

Aurora Public Library

Maker Space



Pillars & Programs

Teaching & Learning

Development of credit bearing opportunities

Design Thinking

@IMSA

Student Maker Squad

Maker Education

Energy Center

Power Up!

Green Apple DOS Seed Fund

Boot Camps

Maker Club

IN2 STEM

Mentors Series

3D Printing Workshops &

Demos

Maker Faire 2017

external curriculum/PD

TALENT junior high

Summer Camps

Swanson Fund

Global Social Initiative (GSI)

Social

Entrepreneurship Initiative

Codina classes

Try-it-

Tuesdays

Teen STEM Café (NIU)

Hackathon

Hours

TALENT programs

- MNL
- Internships
- **Power Pitch**
- Online

1M Cups of Coffee

Girls & STEM

First Lego League (Quad County **Urban League**)

STEM Talent Pipeline

eleMENT

Entrepreneurship Education

Jordan Foundation Partnership (with PFS)

Drop-in Maker

Funding

Revenue Streams

- Donations
- Memberships
- Sponsorships
- Program fees



Expenses

- Salaries
- Equipment
- Program supplies





Questions



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IMSA Innovation Spaces Tour

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Grainger Lab
Grainger Workshop
IN2
Robotics Lab
IN1
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Maker Space Panel (next door in IN1)

Lawrence "Bud" Bergie, IMSA COO Britta McKenna, IMSA CIO Erik Swanson, IN2 Maker Manager



3D printing online resources

- All Things Tech http://www.engadget.com/
- 3D Printing Industry Resource http://3dprintingindustry.com/
- NASA Summer of Innovation Site http://www.nasa.gov/offices/education/programs/national/summer/education_resources/#.Vgu7GbIrJaQ
- **Open Education Consortium**
 - http://www.oeconsortium.org/2015/12/new-oecd-publication-open-educational-resources-a-catalyst-for-innovation/
- Innovation in Community College http://www.league.org/
- National Consortium for Entrepreneurship Education http://www.entre-ed.org/
- Teachers Network for Teaching Entrepreneurship http://www.nfteconnect.org/
- Autodesk http://www.autodesk.com/
- Solidworks http://www.solidworks.com/
- Rhino 3D http://www.rhino3d.com/
- Blender http://www.blender.org/
- TinkerCad https://www.tinkercad.com/
- FreeCad http://www.freecadweb.org/
- Sketchup http://www.sketchup.com/
- Slic3r http://slic3r.org/
- 123dDesign http://www.123dapp.com/design

...more presentations and articles at **IMSA Digital Commons**



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Q: Who came today with a specific space or idea to design?



How might we design a new space at our school to invite and enable innovation initiatives?

Key questions...

Who is your target audience and what do they want?
What do they (you) want to make or do?
What are your constraints?

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Join IN2 on social media...











Lessons from Sylvia...

