NASA, Netflix, and the New York City school district tackle thorny problems with a philosophy of “user-centered design,” and a toolbox of strategies that includes crowdsourcing and hackathons. Starting with the stakeholders creating an open-minded definition of a problem—like how to solve the wide gap in achievement in a math class—a “provocation” is issued, instead of a “specification.” Software developers and other problem-solvers respond with a broad range of solutions. Then, schools and other stakeholders test the most promising ones for themselves. Using this model, New York has:

• Helped middle school math teachers
• Assisted families making choices about high schools
• Given music teachers a way to annotate any song and add quizzes

Learn more about this innovative, cost-effective, and transformative approach to:

• Address entrenched obstacles
• Reap surprising organizational benefits
• Jumpstart your own hackathon or crowdsourced solution

This chat took place on Friday, June 13, 2014, at 2 p.m. ET.
Stacey Decker
Good morning! I hope you are looking forward to today's chat, Solving School Problems Using Crowdsourcing and Hackathons.

I've opened the chat up for questions, so please submit any you have for our guest below. We will be back at 2 p.m. ET with Steven Hodas. See you then!

Michele Molnar
Hello and welcome to today's chat. Great to have you all joining us! It's my pleasure to welcome our guest speaker, Steven Hodas. Steven, please say 'Hi' and introduce yourself.

Steven Hodas / NYCDOE iZone
Hi everyone.

Michele Molnar
Steven is being modest! He is also one of our Leaders to Learn From, a distinct honor to be chosen from thousands of leaders.

Steven Hodas / NYCDOE iZone
I'm an Executive Director at the NYCDOE Office of Innovation, known in shorthand as the iZone

Michele Molnar
Now for our first question

Steven, we start with the idea that schools can solve their problems with crowdsourcing and hackathons. What kinds of problems are appropriate for these approaches?

Steven Hodas / NYCDOE iZone
The content of the problem can really be anything something related to instruction, or related to operations, or community engagement for example would all work.

Michele Molnar
Can you give some examples?

Steven Hodas / NYCDOE iZone
A classic hackathon produces software so for that format you obviously want to work on something where software is a sensible part of a solution and ideally, where there's a bunch of relevant data on which the software can draw.

Michele Molnar
From your experiences, please tell us a Hack-a-thon story.

Steven Hodas / NYCDOE iZone
Sure, in our work we've used it to source software for middle school math, for music education, for apps that help families choose high schools
Michele Molnar
How did you get to “the problem” that the hackathon was designed to address?

Steven Hodas / NYCDOE iZone
We also use crowdsourcing for many processes that don’t involve software at all.

Michele Molnar
We have a question that covers definitions.

Comment From Jason Simmon
Can you give us a brief overview of what crowdsourcing and hackathons are?

Steven Hodas / NYCDOE iZone
We believe really, really strongly in user-centered design. That means letting the people who deal with the problem, define the problem.

Steven Hodas / NYCDOE iZone
So we get to that problem definition by spending a long time interviewing and observing, say, classroom math teachers or parents choosing schools.

Steven Hodas / NYCDOE iZone
In a sense, we’re “crowd-sourcing” the problem definition as well as the solution.

Steven Hodas / NYCDOE iZone
By “crowd-sourcing,” I mean putting out a problem to a group of potential solvers that is larger than usual and more diverse than usual.

The goal is to avoid going to your usual circle of experts in favor of people who don’t share all your organizational biases about what’s possible and what isn’t. This is based on two simple facts.

One, not every smart person already works for your district and, two, something that has been demonstrated over and over in many domains, the crowd is smarter than any handful of smart people.

Michele Molnar
We have a crowd here, so thanks for the compliment!

Steven Hodas / NYCDOE iZone
Loosely, a hackathon is where a group of problem-solvers (usually software developers) come together, usually in a physical place, for an intense period of software coding, generally 6-72 hours long.

What doesn’t vary is the presence of pizza and beer (unless it’s a student hackathon, in which case swap in Mountain Dew).

Usually there is a specific focus to what they’re working on and usually there are also relevant datasets that are analyzed or incorporated into the work.

Steven Hodas / NYCDOE iZone
People who show up may come as individuals or teams and often individuals will form teams ad hoc at the event, combining people with common interests and complimentary skill-sets.

Steven Hodas / NYCDOE iZone
These events are effective because they provide conditions under which serendipity, inspiration, and focus can combine in unexpected ways.
Steven Hodas / NYCDOE iZone
You don't want too much direction, too much structure, or explicit expectations on outcomes. Otherwise you might as well just issue an RFP.

Steven Hodas / NYCDOE iZone
Of course, what comes out of a hackathon is going to be a bunch of prototypes. It's the beginning of a process, not an end in itself.

Michele Molnar
Sounds very collaborative and creative!

Steven Hodas / NYCDOE iZone
Yeah, that is really the point.

Michele Molnar
Do you sometimes call a problem a provocation? We have a question about that from one of our chatters.

Comment From Beth O'Connor
What might a provocation look like?

Steven Hodas / NYCDOE iZone
The end-product (software, etc) is a way of focusing your activity but the point is to learn a new process

Steven Hodas / NYCDOE iZone
Great question

Steven Hodas / NYCDOE iZone
The provocation is the statement of the problem that you use to focus the activity

Steven Hodas / NYCDOE iZone
The trick is not to make it too specific so that you can engage all the different perspectives that come with the crowd

Steven Hodas / NYCDOE iZone
For example, for the GapApp we said in effect, “We have a problem with the huge range of abilities in a typical middle school math class. Help us with that”

Steven Hodas / NYCDOE iZone
we didn't say how, we didn't presume it would be curriculum, or classroom management, or a tool for teachers vs students, etc

Steven Hodas / NYCDOE iZone
As a result we had 200 submissions to choose from, lots of which we never would have thought of ourselves

Michele Molnar
How many of them did you wind up choosing?

Steven Hodas / NYCDOE iZone
BTW, that problem statement was an animated video

Steven Hodas / NYCDOE iZone
You can see it at https://vimeo.com/user15400313
Michele Molnar
Now, you are testing several of the math solutions in classrooms, is that right, Steven?

Steven Hodas / NYCDOE iZone
Yeah, as part of that Challenge we invited 13 of the finalists to work with a school for a year to further refine their product.

Steven Hodas / NYCDOE iZone
That was an explicit goal of that Challenge, to foster collaborations between schools and companies, but it doesn't have to be.

Michele Molnar
Does crowdsourcing/hackathons work in smaller districts too? Or do you have to be a big district like NY to attract interest?

Steven Hodas / NYCDOE iZone
Absolutely, and perhaps more effectively than large districts.

Steven Hodas / NYCDOE iZone
The real point here is to absorb a new set of assumptions and reflexes about problem-solving.

Steven Hodas / NYCDOE iZone
It's fractal, so the basic theory of action is the same whether it plays out in the head of a single person, within a classroom, a school building, a central office, or a large or small district.

Steven Hodas / NYCDOE iZone
While small districts generally have fewer software developers in their vicinity than, say, NYC they have the huge advantage of fewer layers of bureaucracy and a more intimate culture when it comes to thinking and doing.

Steven Hodas / NYCDOE iZone
Having fewer software engineers physically present in your community is in many ways easier to solve for than twelve layers of “we can't do that”.

Michele Molnar
I “hear” you. You don't only invite software developers. Who else would you throw the problem out to?

Michele Molnar
After today's chat, you can read more about one of Steven's Hack-a-thons here “With New Technology, N.Y.C. Paves Way for Open Data” by Benjamin Herold http://www.edweek.org/ew/articles/2013/12/04/13opendata.h33.html?qs=hodas

Steven Hodas / NYCDOE iZone
It really depends. For example, if you're working on something that has to do with, say, communication between schools and families, graphic designers can have a lot to contribute

HAVE YOU EVER PARTICIPATED IN A HACKATHON?

| Yes (0%) |  |
| No (80%) |  |
| Not yet - I plan to (20%) |  |
Steven Hodas / NYCDOE iZone
sometimes there are heavily logistical problems (like transportation or food service) where operations people from various industries can be very helpful

Michele Molnar
Thanks, Steven. Great suggestions.

Michele Molnar
We have a question from Beth that's interesting.

Comment From Beth O'Connor
What are some obstacles that have come up?

Steven Hodas / NYCDOE iZone
Well, there are the usual logistical challenges of throwing a party for 200 people that can last a weekend

Steven Hodas / NYCDOE iZone
but what you might think of as obstacles--procedural objections or district policies that you have to route around--are really the point of the work

Steven Hodas / NYCDOE iZone
you want to field as many objections as possible because your mission is to show people that there are alternatives to business as usual

Michele Molnar
Can you please take us through the 1, 2, 3 steps of setting up one of these things? (I know there are a million steps - but the simple ones.)

Michele Molnar
Tom Vander Ark has also written for Education Week about the work of the iZone. Check it out here, after the chat:
“NYC iZone Launches Blended Learning Institute & Innovation Challenges”
http://blogs.edweek.org/edweek/on_innovation/2013/06/nyc_izone_launches_blended_learning_institute_innovation_challenges.html

Steven Hodas / NYCDOE iZone
1. figure out who is the crowd who will frame the problem
2. figure out who is the community you want to invite to solve
3. have someone who really understands marketing help you create a marketing plan, including the event structure, any prizes, outreach campaign, etc
4. recruit judges, donors if you need them
5. find a great space for the event
6. be prepared for more goodness than you expected.

Michele Molnar
Steven, I LOVE that last point!

Michele Molnar
We have a question from Jason Simmons about budgets. Stay tuned.

Comment From Jason Simmons
Where do you usually put the people and how do you fund it in this era of ever tightening budgets?
Steven Hodas / NYCDOE iZone
By “put the people” I’ll assume you mean, “hold the event”. Find the nicest useful space within 20 miles and ask them to lend it to you.

Steven Hodas / NYCDOE iZone
You’d be surprised by how many people/insitutions want to help try something new for schools

HOW DIFFICULT IS IT TO “DEFINE THE PROBLEM” THAT YOU WANT TO CROWDSOURCE?

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Steven Hodas / NYCDOE iZone
In terms of budgets, there aren’t that many costs food (can be donated), space (can be donated), maybe a prize (if cash, can be donated).

Steven Hodas / NYCDOE iZone
It’s not like the alternatives to doing this are free either, we’re just not used to counting those costs

Michele Molnar
Our next question from a guest is about equity.

Steven Hodas / NYCDOE iZone
If you have any tech companies in your community they will often be happy to host and help organize

Comment From Sherri IAITL
Interested in crowdsourcing equity issues in public education and keeping the conversation productive.

Steven Hodas / NYCDOE iZone
I’m not sure what you mean, Sherri. Can you re-phrase?

Michele Molnar
Not sure Sherri is still with us. Maybe you can answer in the way you interpret it?

Steven Hodas / NYCDOE iZone
As a shot in the dark regarding her meaning, I’d say that user-centered design and crowdsourcing generally promote a much more inclusive process than you usually have in government procurement, with lots more opportunity at every stage for a wide range of voices and perspectives

Steven Hodas / NYCDOE iZone
That’s one of the reasons that the solutions often feel more responsive and authentic

Michele Molnar
Thanks for responding to that, Steven!
Leaders To Learn From Virtual Events
Solving School Problems Using Crowdsourcing And Hackathons

Michele Molnar
We have another question about “innovations” from Sarah.

Comment From Sarah
Some administrators fear or resist ‘innovations’ because they fear having to deal with all of the chaos such things (from their perspective) generate when left to ‘run amok’. How have the hackathons helped created space for creative thinking while still respecting admin's need to have some measure of control and make it workable within the system?

Steven Hodas / NYCDOE iZone
Bulls-eye.

Michele Molnar
While Steven is writing, I’ll share a relevant comment about equity.

Comment From Mark McGuire
There’s no cost to having and sharing a good idea. Equity might relate to ensuring all ideas can be heard/seen.

Steven Hodas / NYCDOE iZone
that’s the work, convincing people who are afraid to be less so. It helps that there are more and more precedents from all levels of govt and the private sector that these kinds of approaches have a fantastic risk/reward ratio.

Steven Hodas / NYCDOE iZone
it’s not like what we do right now is without risk. In fact, it’s fairly predicatly mediocre at best

Steven Hodas / NYCDOE iZone
a new approach doesn't have to be perfect, just better in one way or another

Steven Hodas / NYCDOE iZone
and it helps if you don’t make overblown claims for it too

Michele Molnar
Creating excitement, while managing expectations. A balance it looks like you’ve achieved in your hackathons!

Michele Molnar
We have a question from a guest about “what’s worked.”

Comment From Guest
What are some successes you have had with crowdsourcing?

Steven Hodas / NYCDOE iZone
That’s exactly the tightrope

Michele Molnar
Oops! That question seems to have disappeared. She wanted to know about your successes.

Steven Hodas / NYCDOE iZone
Pretty much all of the things we’ve tried have been successful on the metrics we set for them raising awareness, generating new approaches, creating new partnerships, getting educators and bureaucrats to expand their thinking
which is not to say it's been perfect or that we don't have lots left to learn, just that everything so far has more than paid off, and has justified us in continuing to explore and to iterate this approach.

Don't underestimate the value of joy.

with all other outputs being equal, a process where people simply have more fun (= feel better about their job) is a real and legitimate win.

We have a comment from a participant about this.

As we tell our design students, the process IS the ‘product’; it's about the conversation.

absolutely. the benefit here is in the process much more than the software or whatever the ostensible goal is.

We are being asked for where you might refer us for more information ...

Do you have a website where you put things that have been created by this process?

Think of that as bait for your organization.

We're actually not great at that. you can see some stuff at izonenyc.org and on our Vimeo channel.

Also, when we have something to brag on we usually do it @innovatenycedu

Thanks!

Publicizing events is a must - as the following questioner indicates

How have you gotten the word out about these events?

That's one of the most important things to do well. Think of it like throwing a party, it's really sad when only a few people show up and it makes it less likely that people will come the next time.
DO YOU PLAN TO ORGANIZE A HACKATHON, OR CROWDSOURCED SOLUTION AROUND A PROBLEM IN YOUR SCHOOL?

- Yes, def (20%)
- Maybe (80%)
- Not yet (0%)
- Neat idea, but no thanks (0%)

Michele Molnar
Agreed!

Steven Hodas / NYCDOE iZone
definitely do not leave it to your internal resources if you can avoid it, enlist the help of someone who really knows how to do outreach to the communities you're targeting

Michele Molnar
This is the "create excitement" part.

Michele Molnar
You say that schools can reap surprising organizational benefits from these processes as well. How so?

Steven Hodas / NYCDOE iZone
The most immediate benefit is the conversation about problems you'll have with the people you're trying to serve teachers, kids, or families.

Then there's the benefit of having a new approach to problem solving. No one approach is ideal for all situations and so you can never have too many to draw on.

Steven Hodas / NYCDOE iZone
There's a long-term benefit in engaging a wider range of potential solvers and partners than you historically have worked with, especially smaller, more innovative and performance-oriented companies that most districts are familiar with.

Steven Hodas / NYCDOE iZone
But most important, I think, is that in learning how to work in this iterative, user-focused, collaborative manner, districts challenge their basic assumptions about how they go about their work and realize there's a lot more room for innovation, collaboration, and fun than they would have thought.

Steven Hodas / NYCDOE iZone
The limits to those things are almost always more cultural and organizational than they are regulatory, and challenges and crowdsourcing are great reminders that you can choose to do things differently.

Michele Molnar
Is there somewhere you send people (a book, a website, another resource) for getting answers about how to launch their own crowdsourced solution?
Steven Hodas / NYCDOE iZone
If people are interested, I've uploaded a couple of videos that describe our experiences with this to our Vimeo page, https://vimeo.com/user1540313

They may not be done processing yet, so if you only see one there, check back later.

Michele Molnar
That's great advice, Steven. Thank you for sharing that!

Steven Hodas / NYCDOE iZone
I wish there were something like that. EdWeek should make one!

Michele Molnar
Great idea! I know who would be our ‘go-to’ source!

Steven Hodas / NYCDOE iZone
[crickets]

Michele Molnar
I want to give you a couple of minutes to leave the audience with some parting thoughts.

Steven Hodas / NYCDOE iZone
Hmmm

Michele Molnar
I also want to tell everyone they should read more about Steven here "Ex-‘Outsider’ Chips Away at School Procurement Process in N.Y.C. “ http://www.edweek.org/ew/articles/2014/03/05/23ltlf-hodas.h33.html

Steven Hodas / NYCDOE iZone
Hackathons and crowdsourcing are a form of design. Design is a form of kindness, maybe the only form of kindness that is always possible for government to exhibit.

Michele Molnar
Steven, you have shown your tremendous kindness by volunteering (or being volunteered) to participate in today's chat - and share your great experiences and ideas.

Steven Hodas / NYCDOE iZone
The values of good design are, basically, empathy, enthusiasm, and optimism. To the degree you exhibit those--which you'll have to to succeed at this kind of thing--you will make allies.

Steven Hodas / NYCDOE iZone
Thanks, everyone for coming.

Michele Molnar
Steven, thanks so much for your time and insights!

Michele Molnar
And thanks to our wonderful, participatory audience.

Steven Hodas / NYCDOE iZone
See you all on the interwebs :-}