

## CURRICULUM WORKING GROUP

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need more support for deep concepts and the harder conceptual stuff: Asha mentioned persistent data was difficult for them.  
asking questions of the students to be sure they understood

cascading mentoring -- older students help teach younger

Rogers: Diffusion of Innovation

innovators are going to be there (knocking on the door, looking for help) Give those people resources. Those people are going to be the role models for other teachers.

1. You need to solve a problem that they have. Not just tech for tech sake. In a way that doesn't scare the teacher that they might lose time in their curriculum.

Chinma's example: speed of car related to circumference of tire. Having the kids develop it as an app makes them really learn it and understand.

Clear Lab Muzzy Lane: ideas for things to change into apps.

skeleton projects - fix the error, change the simulation, etc?

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\*\*icons to indicate what you need to do this tutorial/lesson (i.e this one needs GPS, needs phone, needs...)

How modular can this curriculum go? (Tammy P)

starter lessons that don't even use the phone: what is an app? what makes a good app? why does it have to be on a phone?... affordances, etc. I think Motorola has this as well.

Jeff S: Diffusion of innovation. Do this by projects

This working group seems to be moving into a discussion of how to get things like App Inventor into actual schools -- esp the ones that don't have anything like this. Also, getting subject area teachers to see the usefulness -- how to solve a problem a teacher is having -- by showing them the value of the apps.

Look at Storytelling Alice website for good example of a way to package up curricular materials so that teachers can pick and choose what they need.

Greenfoot Hub - this is a good example of support structure -- regions have their person

### **Saturday morning notes:**

Tammy P: suggests making App Inventor curriculum aligned with CSTA K-12 Standards

Assessing Learning -- measuring how well students learn using App Inventor. Jean suggests that college profs may not want to use App Inventor because it seems to elementary/entry level. But it's quite possible that learning will be deeper (Jean's hop-skip-jump approach)

CS Unplugged type activities: games with pseudocode rules

Certification program: is there a way MIT could offer a way to go through a course so you become a "Certified App Inventor developer" or something like that. Different school districts would have different rules about whether/how they would award credit to students completing this. Independent study is something many HS offer -- also articulation with local colleges (this takes work to set up.)

CT will have a state requirement for hs students to do a capstone project - this will take effect in 2015. Kristin V will be doing this with students in CT starting this school year. (she will be working with and using Ralph's curriculum.)

PA has a senior seminar -- very open to how the district wants to do it.

EdX: may have a system where you finish a course and pay a small \$ to get your certification/endorsement saying you've completed this course.

Suggestion: to offer assessments (even just suggested questions that teachers could use) that go with the App Inventor curriculum. This could help it to be adopted by teachers.

Look at MS Office user specialist exams. Larry Snyder's students used to take this as a graduation requirement.

Dave W's course in a box: lessons listed under "what you are learning"

Language agnostic descriptions can be useful

Udacity courses are a good example: we think people are finding those engaging. They have also managed to set up an arrangement with (Pearson?) so that people can take an exam and get a certification (around \$20)

Teacher PD: online could work, face-to-face is also important. Maybe webinars could help with this, but the brainstorming, networking, playing off of ideas... affecting a culture change takes time. How will they be drawn to learn this? (esp the content area teachers)

Discovery Educators Network - "star" community members

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### **AI Lab - Concept**

**Cost: \$2,000 - \$4,000 and annual maintenance costs**

Hardware: 20 cell phones with necessary hardware and software

Professional Development: Online or via face to face

Maintenance of hardware and software keeps lab updated outside of school

- Provided only to defined teacher innovators
  - Demonstrated innovative with tech tools in classroom
  - Professional Development teaching mentor
  
- Required from teacher and students:
  - Daily Journal online with video
  - Creating solutions for community and/or school problems
  - Posting to Google Play
  - Creating games, database, networking, web
  - Submitting Apps to Gallery
  - Online assessments
  
- Possible courses
  - Semester long course
  - Year long
  - After school
  
- Certifications and recognitions
  - Emulate Science Fair competitions / FIRST Robotics
  - Required online formative and summative assessments provided through the apps gallery (see [w3schools.com](http://w3schools.com) certification process)