Clicking the Pieces Together

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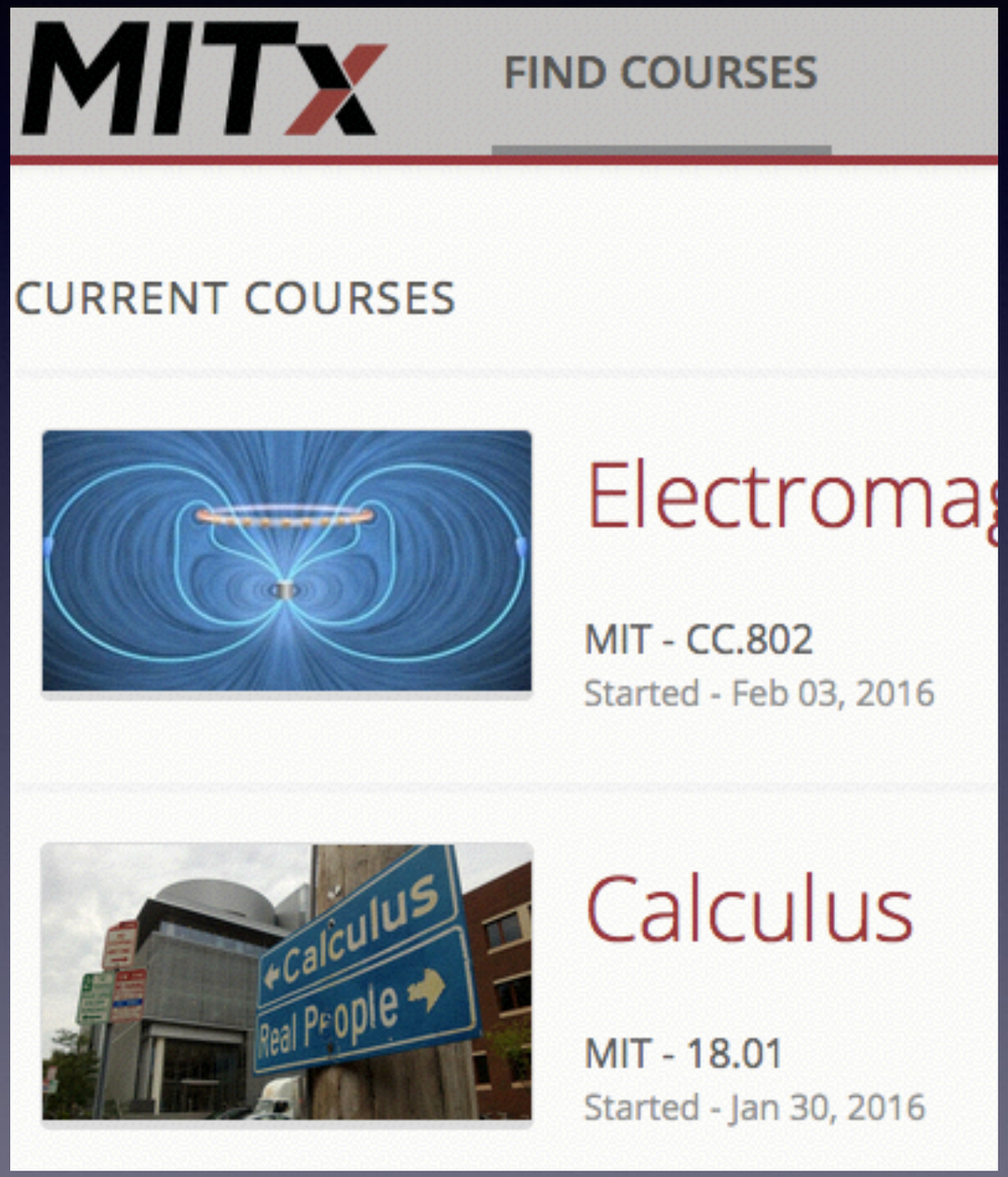
“Tools for Digital Learning” xTalk
3/3/2016

Let your imagination go wild!

- Instant response & feedback
- Hints systems
- Socratic tutor
- Classroom monitoring
- Automated in-class statistics and correlations

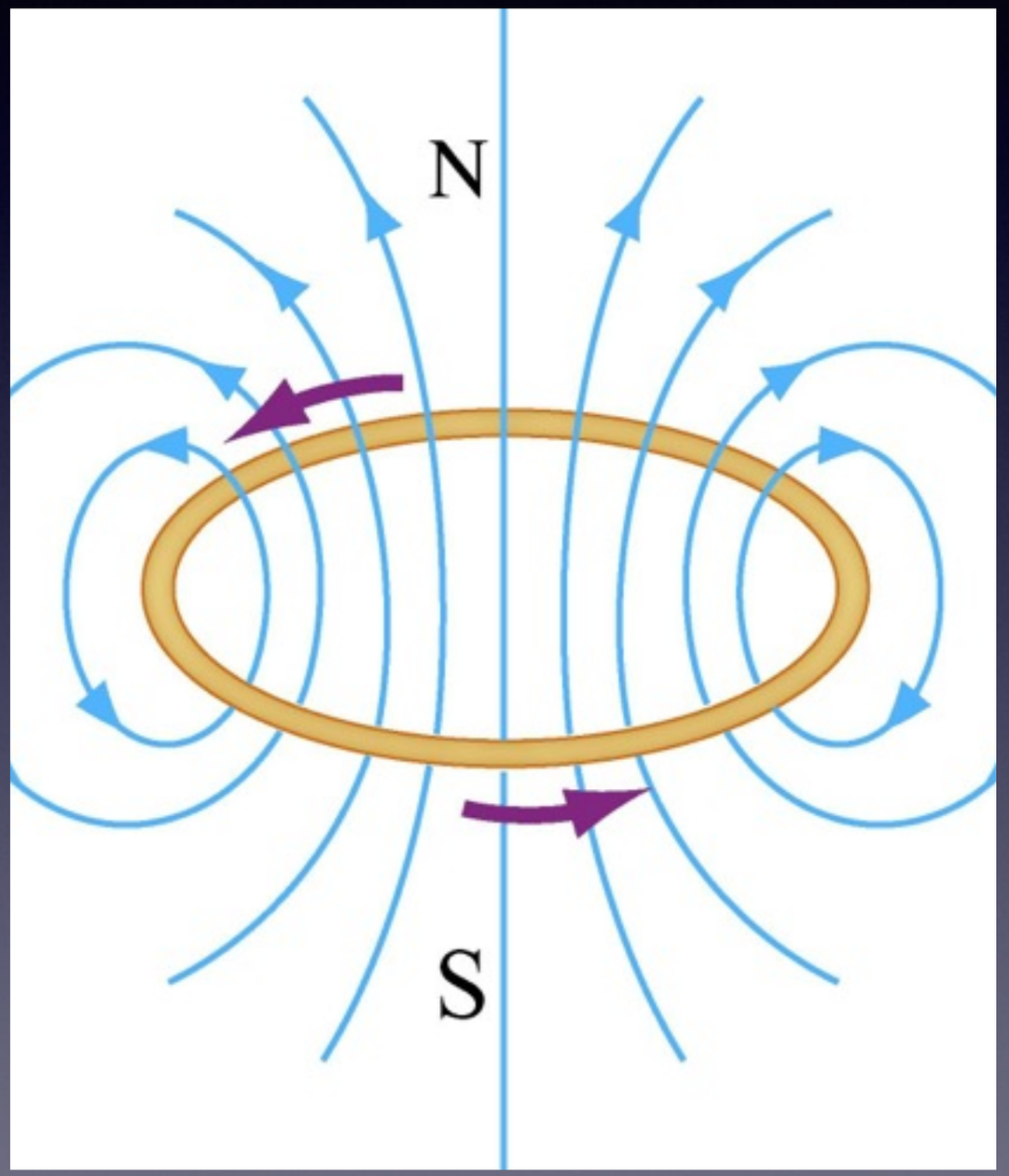
A Confluence of Technology

- Plethora of internet-capable devices
- Ubiquity of instant response technology (“clickers”)
- edX platform provides (reasonably) flexible baseline to build upon



8.01 and 8.02 Physics

- General Institute Requirements
- Mostly taken by freshmen
- Range from 500-750 students
- Uses TEAL format
- Uses MITx heavily



The Humble Clicker

- Used to get students thinking in class

- Provide real-time feedback to instructors on class understanding

- Every student registers their clicker

CLICKER REGISTRATION (EXTERNAL RESOURCE)

On this page, you can register your clicker and specify your section, group and table numbers. If any of this data changes in the future, you can come back here to update it. You can also view the last date your clicker was recorded as being used. Note that changing your section here does NOT change your section registration with the Registrar's office.

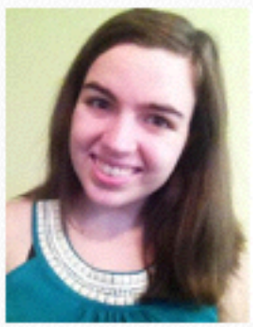
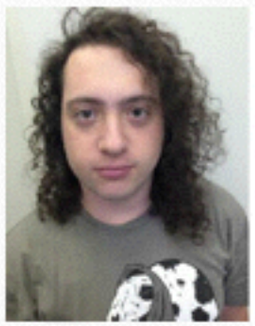
You currently do not have a registered clicker. **You should register your clicker now!**

Clicker ID:	
Section:	
Table:	
Group:	
	Register

Note: the clicker ID (also called the device ID) is a 6 digit hexadecimal code on the back of your device. If you cannot read the ID on your device, bring it to class and ask for the technical instructor, who can use the clicker system to find your ID.

Students register on MITx

57 Students Registered in Section 4

Table 2	Group 1	[redacted]@mit.edu	[redacted]@mit.edu	[redacted]@mit.edu
Table 3	Group 1	 [redacted]@mit.edu	[redacted]@mit.edu	[redacted]@mit.edu
	Group 2	 [redacted]@mit.edu	[redacted]@mit.edu	[redacted]@mit.edu

We generate class lists

Clicker Data Upload

Select the Turning Point data file (with extension .tpzx) to upload.

Section: ---

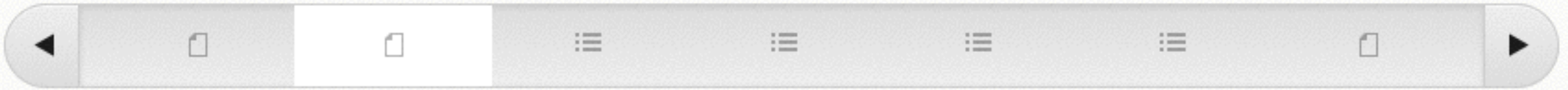
- (•) List present clickers
- ( ) Upload clicker grades

[ ] Send full grades for all clickers (use if sections got mixed)

Upload this file: Browse... No file selected.

Upload File

We load clicker data into MITx



EXPERIMENT LOGIN (EXTERNAL RESOURCE)

Please register your group for this experiment by providing the kerberos ID for each group member present.

Student 1:	
Student 2:	
Student 3:	
Student 4: (With instructor permission)	

Login

Students log into experiments in groups

Question: What distance between the slide and screen (L) did you use?

$L =$ 80 ✔ in cm.

Question: What is the average distance Δy between maxima?

$\Delta y =$ 2 ✔ in mm.

Question: Use your measurements to calculate the wavelength of the laser light in nm (1nm=10^{-9}m).

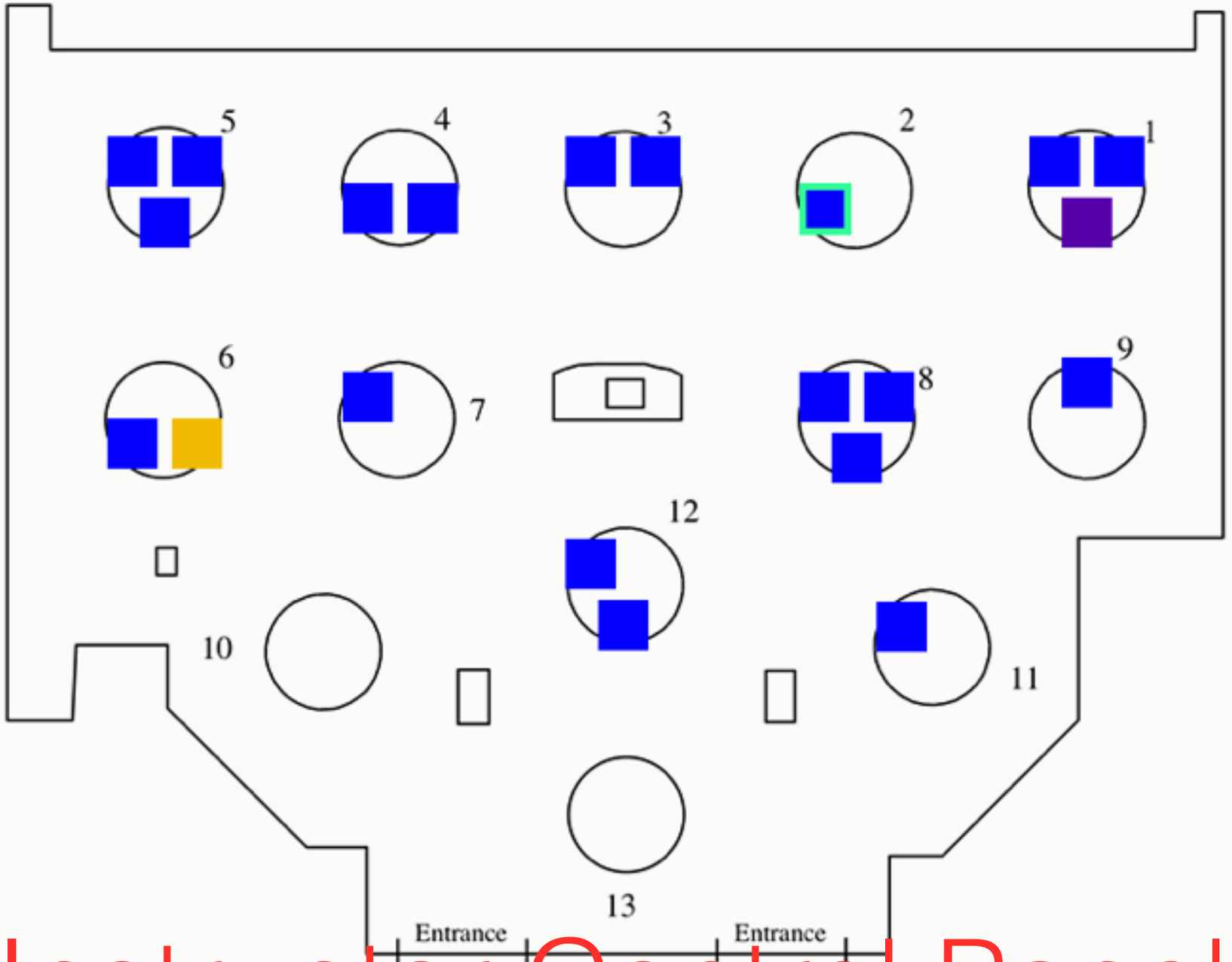
$\lambda =$ 1700 ✖

Warning: Something is wrong. Check your calculation and your units (nm in this case).

in nm.

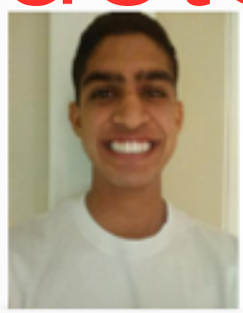
They answer experiment questions in MITx and get feedback

Page 1 | Page 2 | Page 3 | Page 4 | Complete



Instructor Control Panel

Table 2
Group 2



Delete Group

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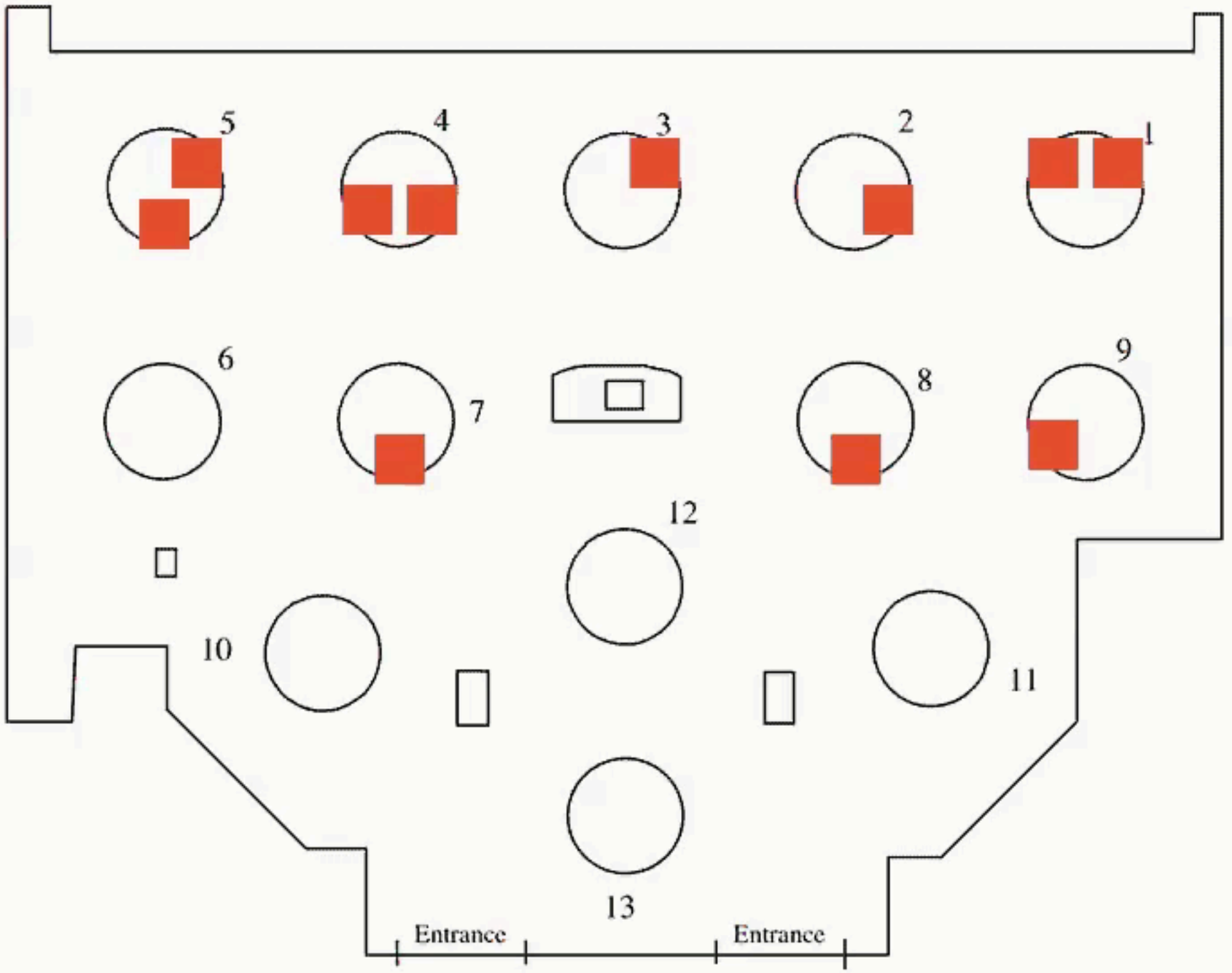

Conclusions

- We currently live in a technological utopia, but getting systems to communicate is hard
- The technology has been around for a (comparatively) long time
- Only recently has the scaffolding for building such systems become available
- We are educators, not technologists
- Hopefully systems will soon become “off the shelf” instead of DIY

With thanks to

- Saif Rayyan
- Peter Dourmashkin
- George Stephans
- ODL :-)