



# Summer Institute

Mexico City  
July 9<sup>th</sup> – 20<sup>th</sup> 2001

7 May, 2001

# 1 Overview

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The Summer Institute is the next step after and before many others towards creating and studying the learning environments of the 21<sup>st</sup> century. As always, our primary goal is to deepen our understanding about learning and learning environments. Also, as always, we will build our reflections and discussions about learning from the concrete activities of the institute combined with the needs of our projects.

We will use the Summer Institute itself as an *object to think with*. That is, our activities, organization, and way of working should provide a model of the type of learning environments we want to create. It should not resemble school as it has been but rather it should be another step towards designing and constructing the type of environment we want as learners.

The Summer Institute is designed to support the Learning Hub initiative, which is designed to help create, support, study and improve the constructionist learning environments we desire for our communities. Thus, by the end of the Summer Institute the participants should have a better understanding about:

- Learning.
- The innovative learning environments they want to create.
- Long-term projects and activities to do within these environments.
- Technological tools to use.
- Technological tools to make.

The Summer Institute also will provide an opportunity to meet with colleagues from around the world who have embarked on the same mission. We will collaborate at a broad level to learn about and further develop the theory and practice of constructionist learning environments, as well as the more practical matter of how to bring about such changes. We also will collaborate at a more micro level not only in terms of interacting with learners, but also in terms of the project themes such as early childhood learn-

ing, teacher development, rural technology centers etc. Here too we hope participants will form networks of collaborators to continue work, research and discussion even when they return to their project sites. We plan to introduce tools for long-term remote collaboration during the workshops.

We would like to think of the Institute as an open learning community with participants engaged in a variety of activities. Rather than thinking of a number of classrooms with groups divided in particular ways (e.g. age, country etc.), we are thinking of a more flexible, mixed environment that combines project work within the themes of the Learning Hub, combined with focused workshops to provide learning opportunities for specific topics.

Unlike previous MIT workshops, this time participants will come from a variety of places and projects. The participants will range from having many years of experience to almost none. Some participants will have considerable technological experience and others none. Rather than treating this diversity as a problem, we believe it can be a strength. Just as we advocate not segregating learners by age and enabling a mixed environment where everyone works with and learns from each other, we believe this can hold for the Summer Institute. In this way the experience can serve as a model for local Learning Hub projects.

We have our ideas about how to organize the Summer Institute. However, we are taking more of an *Emergent Design* approach for a variety of reasons.<sup>1</sup> Emergent Design fits our notion of how to operate learning environments. Since there are so many participants from so many places with such vastly different levels of experience focusing on such different issues, there are many unknowns for this workshop and thus we need to be adaptive. Also, again fitting our notion of the design of learning environments, we want to accommodate the objectives of the participants and this will

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<sup>1</sup> See David Cavallo's PhD. thesis for a more in-depth description of emergent design.

only emerge through discussion before the workshop and interaction during it.

Paulo Blikstein, a student in our group at MIT, said that he believed that what people wanted from the Summer Institute was a *transformational experience*. This is a deep idea for learning. Powerful ideas and powerful learning are transformational. Fluency with mathematics, technology, music, art, writing etc., is transformational. Learning environments at their best are transformational places. Learning about and becoming passionate and excited about ideas and subjects are the goals of our learning environments. We want to learn more about creating such environments and we hope the Summer Institute itself will be such an environment.

At a systemic level we also want the Learning Hub and our initiatives to be transformative of the overall learning environment. We do not merely want to see small incremental improvements. Rather, we hope for the lofty goals of the promise of technology opening new pathways for children and our communities. This is the overall goal for all of us during this Summer Institute. How to do this is the issue.

The children's toys Transformers are a fun thing to think with. These are toys that begin as one thing and can transform into another. There is something quite constructivist about them. They cannot just change into anything. They start from a base and are constrained in which ways they can develop. We will investigate such transforming toys in one of the workshop activities.

## 2 Institute Design Ideas

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### 2.1 Background Data

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Participants will come from a number of countries. Within each country there are a number of project themes. We hope that the Summer Institute attendees will not only enjoy meeting their colleagues during the workshop, but will form lasting relationships with each other. The idea is to create a network of like-minded people to share ideas

The themes to date include:

- Creating new constructionist learning centers.
- Early childhood learning.
- Rural One-teacher schools.
- Teacher development.
- Secondary education.
- Village and community technology centers.
- Urban education reform.
- Informal centers such as libraries, community centers, museums etc.

Time will be devoted to each theme such that the participants will meet colleagues from other countries working on the same area, to brainstorm and plan for concrete ways of working in these areas,

Looking at goals on another level we also know that we want to:

- Better develop concretely our ideas about learning.
- Better develop technological fluency.
- Go deeply into ideas about learning environments, including the roles of:
  - project-based activities;

- learner-centered activities;
- time and doing projects over long periods of time;
- connecting from projects to knowledge domains;
- immersive environments;
- dynamic curriculum.

## 2.2 Possible Design Ideas

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Normally when we run workshops, we create a technologically immersive environment. We gather in groups that are not too large. The activities are a combination of building projects, discussions about learning and learning environments, and some longer talks by Seymour Papert and others. Each person constructs projects of her or his own choice with the technology available (for example building projects by programming or building little robots). The workshop facilitators provide examples, guidance, answers to questions and the like. We use the concrete construction experience as the basis for our conversations on learning.

We have found this to work well and this will be part of the Summer Institute. However, we also want to provide the opportunity for people who already have experience with the tools and philosophy to further develop their technological fluency. We propose to accommodate this either through constructing more complex projects, by engaging in focused workshops on more advanced activities, or by joining the development efforts of new tools we are making.

The types of advanced activities proposed to date include:

- Creating new computational environments for very young children.
- Emerging literacies of young children
- Making new sensors and extending the robotics to new materials.
- Controlling physical devices from the screen, and controlling Logo turtles from physical devices.

- Making computer games.
- Developing web-based collaborative, constructionist learning environments.
- Developing better video tools.
- Developing new computational toys.

We are open to suggestions of other workshop topics. Please suggest ones in which you are most interested.

## 2.3 Use of Time and Space

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Since the Summer Institute differs vastly from typical workshops, our use of time and space must differ as well. Again we hope to use this as a model to think with for the learning environments we hope to create.

For example, if we divide into groups that focus on a particular workshop, we will want others to be able to see our projects and learn about our ideas. At times we will want to work in very small groups and at other times gather everyone together. Some activities might not warrant the use of all 2 weeks, while others will.

One possible proposal is to use ideas from the Reggio-Emilia early childhood program. They designed space into 3 categories:

- The piazza, a large public space.
- Ateliers, workshop spaces for bigger groups.
- Mini-ateliers, workshop spaces for small groups.

They also have lots of places to post work to show a living memory of projects.

This is just one proposal. We invite everyone to join on an electronic forum to propose their own ideas. We can use Microworlds Logo to animate possible scenarios and designs. We will post some in the next few days as examples.

We do hope that people will post their expectations and goals for the workshops. In accordance with our beliefs, the Summer Institute should not be planned and run from above without regard to the interests of the participants, but should be jointly constructed by all.

At times there will be major talks for all to attend. For this we will provide simultaneous translation. When you communicate with us, please make certain to specify your language as well as the activity in which you think you will engage. No one will be bound to the activity they specify beforehand. That is just to give us an idea of numbers for planning purposes.

Some people will be torn between participating in one activity or another, as we believe all the activities will be exciting. Here, we might impose some order. Please remember that this is just the next step among many. We will hold other gatherings of this type. We also will maintain electronic contact. We want people to have the opportunity to go deeply into their projects and the underlying ideas. To jump from one activity to another will not permit such depth. This is a deleterious effect of a two-week workshop that we should not have in our learning environments. Thus, we request that people stick with the chosen activity throughout the duration of the Summer Institute.



## 3 Practical Logistics

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The Summer Institute will be co-sponsored by the new Latin Center for Digital Culture and the MIT Media Lab Future of Learning Group. The Learning Hub initiative is one of the principal projects of the Media Lab's new Digital Nations research consortium. It will be held in Mexico City and run from Monday, July 9 through Friday, July 20. We will send more detailed information about food, lodging, and transportation in the coming week.

We need to know how many people from each site will attend as soon as possible. We realize that this number is dependent upon the costs involved. We are doing our best to minimize the costs and provide sponsorship. Please let us know your capabilities for sending and sponsoring people from your site. We will work with everyone to ensure fairness. We do not want lack of resources to be a reason for anyone not to participate.

Please communicate with us as immediately:

- How many people will attend from your site.
- Their names and roles.
- The project(s) in which they are involved (e.g. early childhood, primary education etc.).

Please send this information to:

Jacqueline Karaaslanian [email: [jk@media.mit.edu](mailto:jk@media.mit.edu)]

### **Contact information**

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