# How OLPC project can help children to create PLE/personal learning environment?

Como uma ferramenta que esta disponível 24/7

Oferecendo uma escolar de bolso

Oferecendo material de pesquisa, acesso a material e a comunicades de pesquisa

Focusing children around "activities" not on “applications” when developing learning experiences by using Laptops.

Stimulate collaboration by being both a learner and a teacher. Encourage children to take responsibility for others' learning as well as their own.

The exchange of ideas amongst peers can both make the learning process more engaging and stimulate critical thinking skills. (the laptops employ a mesh network that interconnects all laptops within range, by exploiting this connectivity, every activity has the potential to be a networked activity).

learning through doing

our journal concept embodies the idea that the filesystem records a history of the things a child has done, or, more specifically, the activities a child has participated in

By providing children with new opportunities to explore, experiment, and express themselves.

developers must focus energy into making interfaces discoverable, wholly intuitive, and building metaphors that strengthen and clarify the interface. (Zoom metaphor: Home, Groups, Neighborhood, Activity,

to develop activities in ways that scale well across age levels.

All activities and interfaces should be designed in such a way as to be simple and intuitive to users of all age groups, nationalities, and levels of computer experience.

Key Design Principles

Performance: provide a computer tailored to the needs of children in the context of their learning, not to the needs of frantic video games or office applications.

Usability: Usability has everything to do with the actual behavior of the activities, the layout of the buttons and tools, and the feedback that the interface provides to the children when they interact with it.

# Abstract

This paper examines how ‘One Laptop Per Child’ (OLPC) projects can support the development of Personal Learning Environments (PLE).

It will pay particular attention to the Sugar Graphical User Interface (GUI) to provide autonomous learning experiences for children using their own laptops.

Most teachers are frustrated by their unmotivated students. What they may not know is how important the connection is between student motivation and self-determination. Research has shown that motivation is related to whether or not students have opportunities to be autonomous and to make important academic choices. Having choices allows children to feel that they have control or ownership over their own learning. This, in turn, helps them develop a sense of responsibility and self-motivation.

As we reflect on our work and research in education, we hypothesize that at least four systemic problems, which have not been widely addressed in reform, are inhibiting our ability to effect breakthrough change:

The research shows that it is possible to move from a pedagogy of abundance to a pedagogy that supports human beings in their learning through the active creation of resources and learning places by both learners and course facilitators. This pedagogy is based on the building of connections, collaborations, and the exchange of resources between people, the building of a community of learners, and the harnessing of information flows on networks. This resonates with the notion of emergent learning as learning in which actors and system co-evolve within a MOOC and where the level of presence of actors on the MOOC influences learning outcomes.

Personal Leaning Environment (PLE) can be defined as as a concept vs PLE as a collection of tools.

Using these technologic resources on individuals’ knowledge construction process provided interdisciplinary learning and stimulated ones’reading, writing, researching, communicating, technical, artistic and cultural skills development.

# Introduction

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A tarefa de melhorar nosso sistema educacional, dinâmico e complexo, exige atuação em múltiplas dimensões e decisões fundamentadas, seguras e criativas. De um lado, há melhorias institucionais, que atingem instalações físicas e recursos materiais e humanos, tornando as escolas e organizações educacionais mais adequadas para o desempenho dos papéis que lhes cabem. De outro, há melhorias nas condições de atendimento às novas gerações, traduzidas por adequação nos currículos e nos recursos para seu desenvolvimento, num nível tal que provoquem ganhos substanciais na aprendizagem dos estudantes

The task of improving our educational system, dynamic and complex, requires action in multiple dimensions and reasoned decisions, safe and creative. On one side, there are institutional improvements, affecting physical facilities and human and material resources, making schools and educational organizations better suited to the performance of the roles that fit them. On the other, there are improvements in the conditions of service to new generations, translated by fitness curricula and resources for its development, a level that cause substantial gains in student learning

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We know that spending time in a seat doesn’t equal

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Sem dúvida, estamos vivendo um processo de rápidas transformações nas formas de ser, viver, relacionar-se, principalmente com os grandes avanços nos meios de comunicação e da Informática. Torna-se quase impossível planejar e definir com antecedência o que deve ser aprendido e que competências são necessárias para habitar esse “mundo novo”. Porém, quando falamos em Educação, podemos apontar algumas necessidades:

* Atualizar fontes de informações e desenvolver novos talentos/competências em todas as áreas, impedindo que as defasagens aumentem.
* Desenvolver atitudes e valores para a convivência com autonomia e cooperação.
* Desenvolver novas habilidades para uma mesma profissão cujas atividades variam e se transformam rapidamente.
* Desenvolver competências que permitam também mudanças de uma profissão para outras emergentes, no curso da vida.

A grande maioria das metodologias educacionais, e de suas tecnologias, que atualmente são ensinadas nos cursos de formação de professores, mostram-se ineficientes para ajudar o aluno a aprender e desenvolver novos talentos. Não se sabe ajudá-lo a alcançar o poder de pensar, de refletir, de criar com autonomia soluções para os problemas que enfrenta

Como oferecer às novas gerações oportunidades para desenvolver talentos para a ciência e a beleza, para a solidariedade e a harmonia? Como ajudá-las a conhecer, para construir novos mundos de trocas distributivas, de gestão positiva dos conflitos – e de aventuras?

Questões como essas angustiam a nós, professores. O que fazer, então? O salto necessário se constitui em passar de uma visão empirista de treino e prática – controle e manipulação das mudanças de comportamento do aprendiz –, que tem orientado a prática pedagógica, para uma visão construtivista de solução de problemas – favorecimento da interatividade, da autonomia em formular questões, em buscar informações contextualizadas, da comprovação experimental e da análise crítica.

Por que falamos em salto? Porque os sistemas de ensino estão organizados para um modelo de funcionamento geral e padronizado. Assim, passer de uma visão empirista para uma visão construtivista (não apenas de um discurso, mas de uma prática embasada em um forte e claro subsídio teórico), exige uso de recursos antes não existentes.

A chegada da tecnologia Informática na escola não traz para dentro dela apenas as mudanças que estão ocorrendo na sociedade. Ela vem, principalmente, oferecer as inusitadas possibilidades de fazer aquilo que nós, os educadores, temos tentado e sonhado!

Apenas poucos professores, trabalhando com pequenos grupos de alunos, têm conseguido vivenciar práticas inovadoras. Mas essas práticas, em séculos de experiências, têm sido pontuais, não se disseminam, não se generalizam. A Informática e a Telemática podem ajudar a enriquecer os ambientes de aprendizagem, podem ampliar os espaços das salas de aula, podem vencer as barreiras do tempo, podem servir como “próteses” cognitivas, podem ajudar a ampliar os processos socioafetivos e a conscientização, podem ajudar a atender os aprendizes como verdadeiros sujeitos de sua aprendizagem, podem assegurar a intercomunicação coletiva, podem ajudar a criar comunidades de aprendizagem e desenvolvimento. Podem, repetimos. Mas como fazê-lo?

Até o momento, no hemisfério norte, as avaliações têm apontado para a negação dessas possibilidades. Lá, há bem pouco tempo começou a ser discutida a necessidade de dar o salto de um modelo empirista para um paradigm construtivista. Contudo, essa tem sido a forte razão de termos enfatizado, nos últimos quinze anos, a necessidade de se fazer uma mudança de paradigma ao aplicar novas tecnologias no sistema educacional.

Nossa contribuição transitória é convidar os docentes de nossas escolas, os multiplicadores dos NTEs e os educadores em geral para analisar algumas experiências comuns realizadas dentro do Projeto EducaDi/CNPq durante 1997/1998, em que testamos a metodologia de projetos de aprendizagem

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Os currículos de nossas escolas têm sido propostos para atender a massificação do ensino. Não se planeja para cada aluno, mas para muitas turmas de alunos numa hierarquia de séries, por idades

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[The first piece of the puzzle is remoteness](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#50000) [and the quality of education.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#53000) [Now, by remoteness, I mean two or three different kinds of things.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#55000) [Of course, remoteness in its normal sense, which means](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#60000) [that as you go further and further away](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#63000) [from an urban center, you get to remoter areas.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#66000) [What happens to education?](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#71000) [The second, or a different kind of remoteness](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#74000) [is that within the large metropolitan areas all over the world,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#76000) [you have pockets, like slums, or shantytowns, or poorer areas,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#81000) [which are socially and economically remote](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#86000) [from the rest of the city, so it's us and them.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#90000) [What happens to education in that context?](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#93000)[So keep both of those ideas of remoteness.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#95000)

[We made a guess. The guess was that schools in remote areas](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#103000) [do not have good enough teachers.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#106000) [If they do have, they cannot retain those teachers.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#109000) [They do not have good enough infrastructure.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#111000) [And if they had some infrastructure,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#114000) [they have difficulty maintaining it.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#116000)

[When you take education and technology, then I find in the literature that,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#263000) [you know, things like websites, collaborative environments --](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#268000) [you've been listening to all that in the morning --](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#271000)[it's always piloted first in the best schools, the best urban schools,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#273000) [and, according to me, biases the result.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#279000) [The literature -- one part of it, the scientific literature --](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#282000) [consistently blames ET as being over-hyped and under-performing.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#286000) [The teachers always say, well, it's fine, but it's too expensive for what it does.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#291000) [Because it's being piloted in a school where the students are already getting,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#297000) [let's say, 80 percent of whatever they could do.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#300000) [You put in this new super-duper technology, and now they get 83 percent.](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#303000) [So the principal looks at it and says,](http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves.html#307000) says, 3 percent for 300,000 dollars? Forget it. If you took the same technology and piloted it into one of those remote schools, where the score was 30 percent, and, let's say, took that up to 40 percent -- that will be a completely different thing. So the relative change that ET, Educational Technology, would make, would be far greater at the bottom of the pyramid than at the top, but we seem to be doing it the other way about.

I have a quotation from Sir Arthur C. Clarke, the science fiction writer whom I met in Colombo, and he said something which completely solves this problem. He said a teacher than can be replaced by a machine, should be. So, you know, it puts the teacher into a tough bind, you have to think.

# Background

This **chapter** describes the foundations of the OLPC project and explores the most accepted definitions of PLE that can be found in literature.

## The OLPC project

By owning the laptop, children feel free to customize it, in order to adapt it to their preferences and needs.

(Serenelli & Mangiatordi 2010) Even if OLPC has been criticized for its ineffectiveness in enhancing the learning experience of the children involved in the various deployments around the world (Fox Buchele, 2007), the fact that a possibility of building a PLE was given to those children is still there.

## The PLE and the learner centred approach

(Wheeler 2010a) Personal Learning Environments (PLEs) do exactly what they say on the can - they are personal to each individual, created by them, owned by them, used by them within their lifelong learning. Essentially, we argue that students require structure and scaffolding when they first venture into digital learning environments. *No-one is a digital native*, no matter how much the Prensky theory is talked up. Yet the average institutional Managed Learning Environment is by nature dull, uninspiring and difficult to navigate. Web 2.0 tools (Cloud Learning Environment) are more attractive, easier to use and free, but are unprotected and vulnerable.

(Wheeler 2010b) The slide to the left represents the three main functionalities I believe are the most important functions learners need for lifelong learning in a digital age: Generate Content, Organize Content and Sharing Content.

(Cousin 2005)

Cousin, G., 2005. Learning from Cyberspace. In *Education in Cyberspace, Land, R. and Bayne, S. (eds)*. London: Routledge Falmer, pp. 117–129. Available at: http://books.google.com/books?hl=en&lr=&id=CiuCacen4PYC&oi=fnd&pg=PA117&dq=Learning+from+cyberspace&ots=1a7FUZ8CkQ&sig=r4lNC1edpgy9dnTHV3-kD308E8Y [Accessed May 8, 2013].

Serenelli, F. & Mangiatordi, A., 2010. The  ’ One Laptop Per Child ' XO laptop as a PLE A cognitive artifact beyond hardware and software. Available at: http://pleconference.citilab.eu/cas/wp-content/uploads/2010/06/ple2010\_submission\_71.pdf.

Wheeler, S., 2010a. Anatomy of a PLE. , (July), pp.9–11. Available at: http://steve-wheeler.blogspot.com/2010/07/anatomy-of-ple.html.

Wheeler, S., 2010b. Physiology of a PLE. , (July), pp.2–3. Available at: http://steve-wheeler.blogspot.com/2010/07/physiology-of-ple.html.

# OLPC as a platform for children to create PLE

# OLPC as a cognitive amplifier

A machine designed for children and equipped with software, which can empower their cognitive potential (computation abilities, memory, writing skills, etc.);

# Conclusion and Research Ideas

# References and Bibliography