

# Personal Learning Environments: blurring the edges of formal and informal learning<sup>1</sup>

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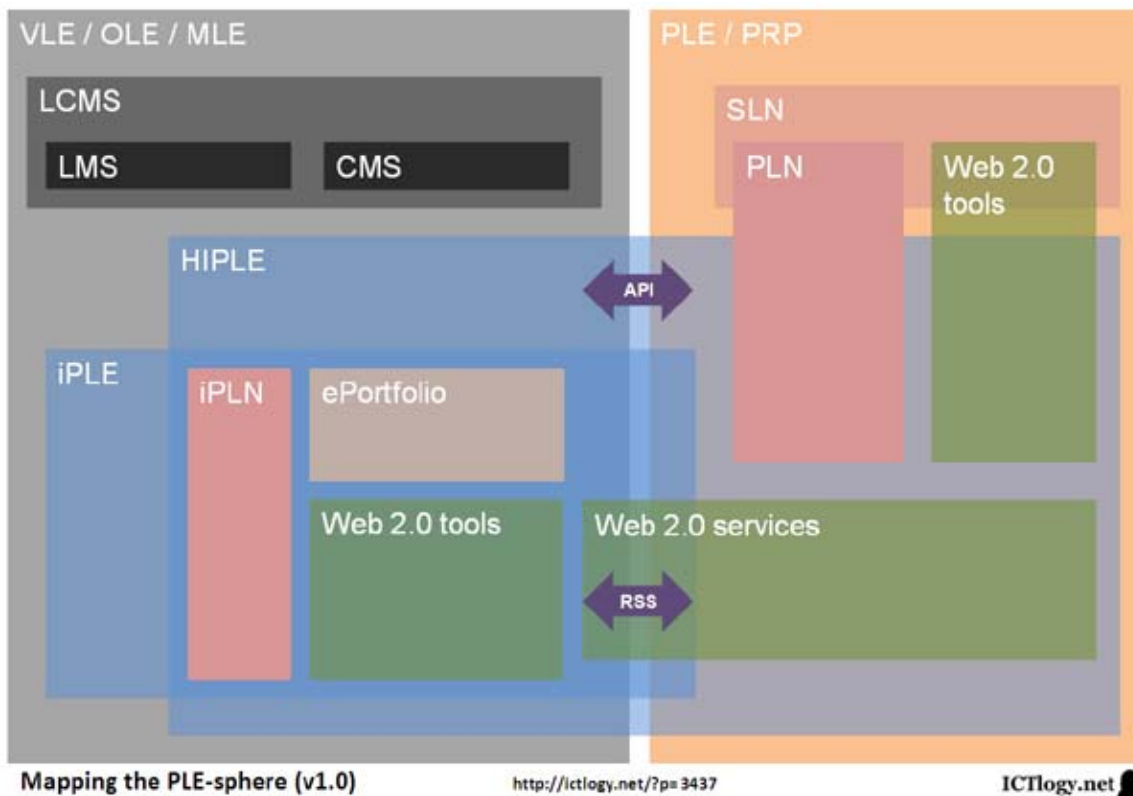
<sup>1</sup> This “working paper” is a collection of articles appeared in [ICTlogy review of ICT4D](#), and that were put up together with the help of [Anthologize](#). See last page for details.

# 1. Personal Learning Environments and Formal Education

## 1.1. Mapping the PLE-sphere

At the [PLE Conference](#) and, especially, during the days before it (the pre-conference) an interesting debate rose on whether there was one kind of PLE or there were many, and if many, what were all the differences that the multiple existing acronyms and definitions seem to be representing. One of the most interesting conversations I had was with [Carlos Santos](#) and Luis Pedro from [Sapo Campus](#) about the institutional PLE (iPLE).

Indeed, I think the core of the debate was not on the different conceptions of the PLE, but on the role of institutions and the educational system as a whole, and not in providing educational spaces through technology, but on their very same essence: do we need institutions and, if yes, of what kind and doing what.



[Mapping the PLE-sphere \[click to enlarge\]](#)

While we get rid or not of institutions, they are still there, PLEs exist too and it would not be such a bad idea to try and build bridges amongst them. The iPLE is a very interesting approach, and I very much liked the communication [SAPO Campus. Plataforma integrada de serviços web 2.0 para educação](#) that Carlos Santos and Luis Pedro made at the VI Conferência Internacional de TIC na Educação. I came up with the HIPLÉ concept with [Introducing the Hybrid Institutional-Personal Learning Environment \(HIPLÉ\)](#), and now Steve Wheeler proposes a more generic term, Cloud Learning Environment, in his [Anatomy of a PLE](#).

The complexity we're putting ourselves into makes me feel the urge to somehow map all the concepts and approaches I've been seeing around in the last years. This is a gathering, not a taxonomy, and the definitions and sets will be purely personal.

### 1.1.1. Institutions

**Virtual Learning Environments (VLE), Online Learning Environments and Managed Learning Environments (MLE — sometimes also iMLE for Institutionally Managed Learning Environment)** are the institutional ways to provide a platform for virtual learning (or to support the online part of blended learning). They stand for what some have called **Virtual Campus** or **Online Campus**.

As a platform, VLEs mainly have four big categories of applications and services:

- The applications that manage records, registrations and all the administrative staff. Most people call them **Learning Management Systems (LMS)**.
- A place where to store learning materials, a **Content Management System (CMS)**. LCMS is usually understood as LMS + CMS.
- A social layer, that is, directories, or virtual classrooms where students can interact. Let's call this in-campus social layer **Institutional Personal Learning Network (iPLN)**.
- A device where all the "production" of the student is stored and assessed. For the sake of clarity let's call this just **ePortfolio**.

### 1.1.2. Individuals

The personal side is more chaotic. Under the concept of the **Personal Learning Environment (PLE)** we find everything (literally: everything) that a person is using to learn. In general terms, this is:

- **Web 2.0 services**, offered by third parties, that help them to blog, to share documents, to monitor people and content, etc.
- Sometimes, these services are not offered by third parties, but hosted and managed by the individual himself in his own domain. We talk then about **Web 2.0 tools**. The distinction, while technically not very relevant, it certainly is at the conceptual level.
- A social layer can also happen outside of campuses. If provided by a third party as a service, we're facing the **Social Learning Network (SLN)** and it usually includes Web 2.0 tools.
- If self-built, we are talking about the **Personal Learning Network (PLN)**. The difference between the SLN and the PLN is certainly blurry and maybe even arbitrary. I like to see them as  $SLN = PLN + \text{Web 2.0 tools/services}$ .

### 1.1.3. The institution-individual bridge

- If we add some Web 2.0 tools *inside* the institution (i.e. inside the VLE) and we link them with the social layer, we come up with an **Institutional Personal Learning Environment (iPLE)**. We can even bring some content from the "outside" within the VLE by retrieving the information from external Web 2.0 services through the RSS pipeline.
- An alternative to the iPLE is the **Hybrid Institutional Personal Learning Environment (HIPL)**. The logic is very similar than the iPLE, but instead of

retrieving content, the idea is that platforms *speak* one to each other by means of APIs. The difference with iPLEs is that HIPLes allow for inside-outside interaction (not only reading or retrieving) in both senses while keeping both spheres (institutional and personal) separate; another difference is that the HIPLes allow the individual to use Web 2.0 tools provided by the institution *and/or* third parties, while the iPLE requires choosing *either* institutional tools or third parties' (see, for instance, the [HIPLes into practice with Twitter](#)). It is very likely, though, that the iPLE and the HIPLes will end up merging as technology advances (though the conceptual differences will remain).

I tried to map all of these in the figure above. Colours have a meaning: greys refer to the institution and, especially, to the administration of learning; orange pictures the personal (believe or not, the ePortfolio is orange beneath those blue and grey layers); pink (or dark orange: the ambiguity is intended) make reference to the social; green are Web 2.0 tools and services; lastly, blue paints the bridging devices.

## 1.2. Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning

This is a plea for equidistance and eclecticism. Based on:

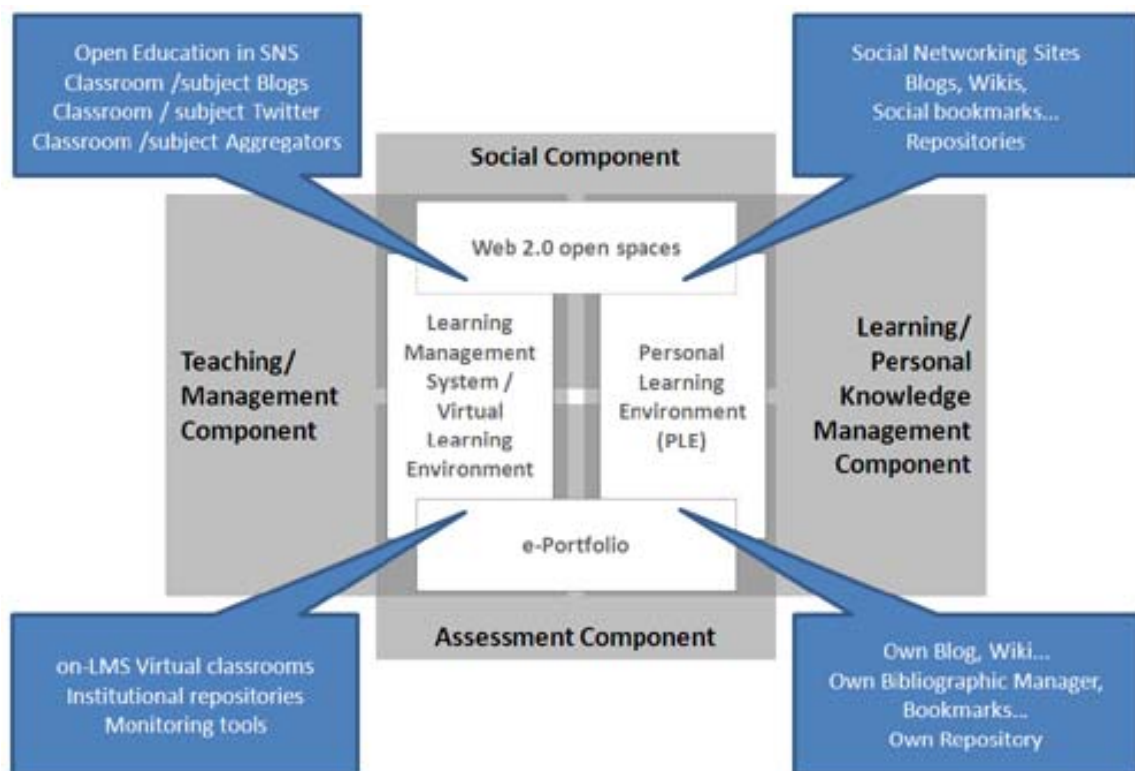
- Being a teacher myself, and having to manage people, marks, syllabuses and on, I heavily rely on centralized solutions that I can barely imagine differently;
  - being (in many aspects) a learner myself, I can't help myself from the bounds that tie me to monolithic structures, and hence manage an open personal environment where knowledge (and learning) comes in many ways;
  - constantly knowing and meeting other people like me (teachers and/or learners), it is just normal that our paths cross and our knowledge environments overlap and enrich one another;
  - all that said, it is just normal that both as a professional and as a learner I need to assess and be assessed by everything that I do here and there, as learning in
-

the Information Society knows no boundaries.

All these aspects concur in the educational process, though many of them make opposite forces, which is why some certify the [death of the virtual learning environment](#) while others consider it [alive](#) and [kicking](#); some will seem to be putting all the eggs in the [personal learning environment](#) and/or [open social learning](#), while maybe there is still room to [reconsider e-portfolios](#).


All this gets more complicated if we take into account [assessment](#) or [tracking knowledge acquisition along your whole life](#).

I increasingly believe that the solution to all this, and put in [Simon Grant's words](#), may perhaps be not a tool but several tools [and] a tool for bringing together evidence residing in different systems. This is my go at the whole issue:



**Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning**

<http://ictlogy.net/?p=3323>

ICTlogy.net 

[Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning \[click to enlarge\]](#)

In general, I see two sets of opposite trends here:

- On the one hand, the dilemma between the **management** needs of teaching, which lead to **centralization** vs. the **self-management** needs of learning, which lead to **de-centralization**;
- on the other hand, the dilemma between the **assessment** needs, which lead towards **individualization** vs. the **socialization** needs, which lead towards **openness**.

Put these four issues one against the other one, I think we can clearly see that there are interesting intersections between them, and these overlaps are crowded with things that are already happening. What I've pictured is not exhaustive in any way, but it gives (me) an idea that "competing solutions" might not be as much of a solution as a hammer is an all-purpose tool.

- Traditional learning management systems (LMS) have long gone online and included (shyly, though, most of times) the social component by providing Web 2.0 tools or channelling third parties' content through widgets and open APIs;
- on the other end, repositories and (hopefully, but very well yet) monitoring tools by means of
- which both the institution and the learner can access (and assess, if needed) the content of the latter;
- e-portfolios are, in many cases, the bridge between the "inside" and the "outside", and I truly believe (or expect) that they will gain increasing importance in blurring the frontiers that still separate virtual learning environments from personal learning environments;
- last, but not least, personal learning environments do also have a social component, which in its other "end" is linked with virtual campuses, thus closing the circle.

In my opinion the [debate of centralization vs. decentralization](#) is not an either-or-

debate, but a puzzle that will be solved by weaving the appropriate (and surely complex) tapestry. And I wonder whether the tools (the needles and the clothes, the open APIs and the widgets and the XMLs) are already there, and what lacks is some upgrade on our digital skills and mindsets (and a little bit of time).



## 2. The Workings of a Personal Learning Environment

### 2.1. The Infrastructures

#### 2.1.1. A PLE digression

During the Spring of 2007 I wrote an article, [The personal research portal: web 2.0 driven individual commitment with open access for development](#) in which I proposed the concept of the Personal Research Portal as a means to create a digital identity for the researcher — tied to his digital public notebook and personal repository — and a virtual network of colleagues working in the same field.

Later that year, in summer, I attended the Oxford Internet Institute Summer Doctoral Programme at the Berkman Center for Internet and Society. It was for me — and for most in there — the first truly web 2.0 enhanced event (as I put it in [OII SDP 2007 \(Epilogue\): Last thoughts about Web Science and Academic Blogging or Why did not Academia come up with Wikipedia](#)), as it was a fantastic exercise to stress the potential of blogs, wikis, social bookmarking, open bibliographic managers or photo and video sharing websites for knowledge sharing and building; and the (personal) discovery of then emerging tools like Twitter, Facebook and Dopplr.

The academic course ended up with the publication of [Personal Learning Environments: Challenging the dominant design of educational systems](#), where, finally, Scott Wilson et al. formally put together what they had been working on in the previous couple of years, but whose origin could at least be traced back to Olivier's [Lifelong Learning: The Need for Portable Personal Learning Environments and Supporting Interoperability Standards](#).

Summer of 2007 was, I believe, the actual taking off of the PLE. Though many had contributed to its conception ([Oleg Liber](#), [Scott Wilson](#), [Graham Attwell](#), [Mark Van Harmelen](#) or [Stephen Downes](#), to name just a few), I personally consider the publication of Wilson's article the coming of age of the concept, and most especially because many interesting things would happen since in an explosive way, from the "massive" adoption of the concept to the "massive" adoption of Web 2.0 tools in

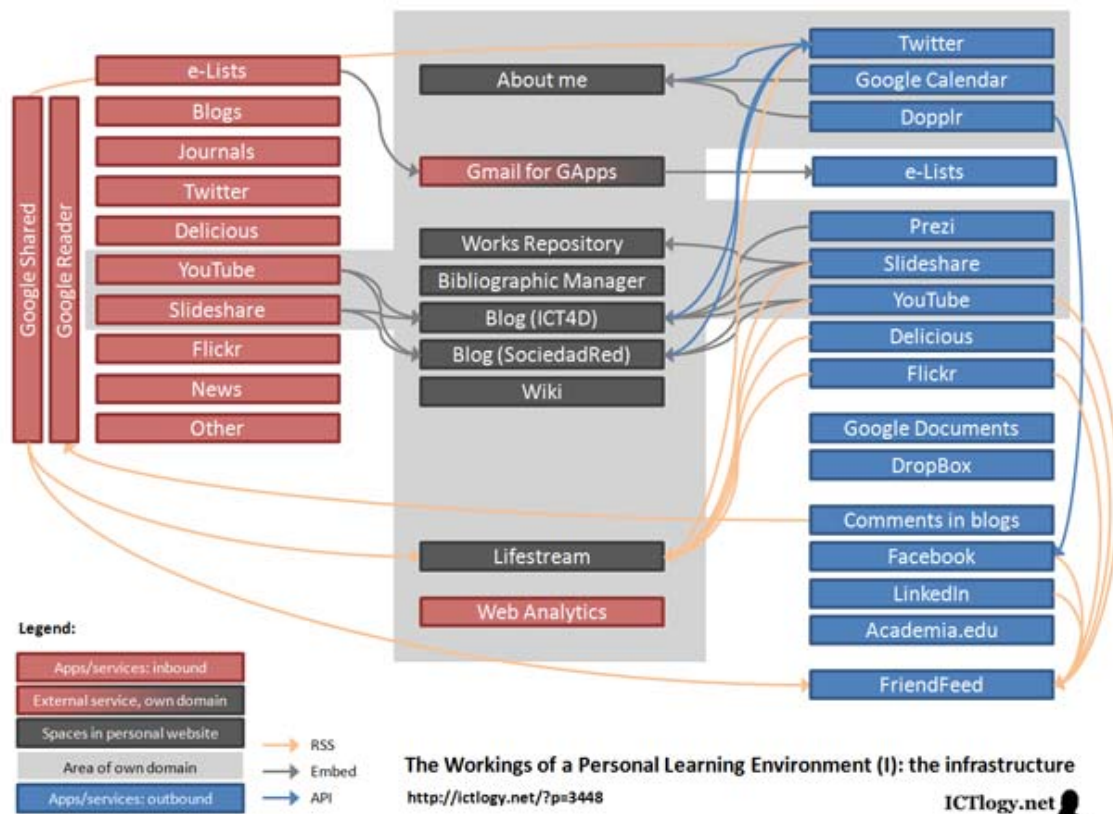
formal and informal learning (as "massive" as we consider ourselves and our reflections on ICT and education "mainstream", of course).

### 2.1.2. Managing the complex

Since 2003 — when this blog was born — and especially since mid 2007, things have changed a lot. Mainly three things have radically changed the information-sharing landscape:

- More people sharing information on the Net, boosted by the popularization of nanoblogging and social networking sites;
- more ways to share information on the Net, boosted by the "cloud" alternatives to desktop applications;
- a likely improvement in everyone's (including me) digital skills, cause and consequence (make a virtue of necessity) of the former two.

According to that, my personal learning environment more or less looks now like this:



[Infrastructure of a Personal Learning Environment \[click to enlarge\]](#)

I used to rather call it personal research portal, as it had an explicit goal in (scientific) outreach and communication that most PLE do not. I'll here stick to PLE for the sake of clarity and consensus.

Instead of wiring all the services I use between them, I chose to present it in a more sequential way (more on this in the following part on information management): information acquisition (input, what I get, in red), storage and processing (own self, in gray), diffusion and communication (output, what I create,

in blue). Of course we cannot sequence information management this way: many tools are used for several purposes, processing is also a part of diffusion, etc. But I think it puts things in a clearer way.

The personal website — [ICTlogy.net](http://ICTlogy.net) — is, of course, the core of the whole thing. I [wrote back in December 2009 that](#):

What we do, what we are must be centralized. It is the image of what we do and become the one that has to be decentralized, not the essence.

I plead for the construction of the portfolio, for a return to the personal or institutional website, using social media as a game of mirrors that reflects us where we should also be present.

If anything, my vision of this statement has strengthened. I am, for instance, seriously considering shifting from [Slideshare](#) to [iSpring](#). Or, at least, doing both: be present in Slideshare but upload and share in my site my own presentations in flash format.

This explains not only why the personal website (the areas shadowed in gray) is not only a huge hub where everything at least passes through, but why most information is embedded in there, especially all *my own* production. The blogs, the wiki, the bibliographic manager and the repository all are personal installations that surround my digital persona (here pictured as "about me"). Even the e-mail accounts, though managed with G-Mail, are my own domain's. Moreover, the site also hosts a [lifestream](#) that works as Friendfeed collecting most my activity, but storing it on my own site.

### 2.1.3. Some reflections

First of all, it is important to note how relevant **RSS has become as a vehicle to exchange information**, but how **embedding still is the option to present information**, leaving APIs just a marginal role in the whole picture.

Linked to this, it is becoming increasingly industrious to keep record of your own production (whatever its quality). The result of this is that your digital persona and even your e-portfolio is scattered all over the Internet. This has consequences on the perception people have on you, thus consequences in how you are evaluated (knowledge, competences, behaviour). **The forces that drive you to being present in the relevant places are opposite to the forces you have to apply to keep your things straightened up** and under control. RSS feeds, open APIs and embedding help, and a personal website (including domain) is, in my opinion, becoming mandatory for every knowledge worker.

On the other hand, I would also like to stress the **role of web analytics tools**. If used for something more than quantitative measuring (pointless in my case, as visitors to my site come one by one and never in herds), these tools provide precious information if monitored carefully. Among others:

- Discover kindred souls that visited you and you hadn't heard of. Of course, this fact deeply depends of you keeping in topic.
- Discover comments on your opinions and work.
- Discover works that have been listed besides your own, and that you hadn't heard of.
- By construction, discover others' ongoing work and projects and, sometimes, even be able to take part in them.

## 2.2. The Information Workflow

### 2.2.1. Mainstreaming your PLE

If in [The Workings of a Personal Learning Environment \(I\): the infrastructure](#) we saw how a PLE could be built, we here explain how can it work. Or, in other words, how the information flows through it and is fixed and transformed.

An observation, though, should be made about the substance and the form of the PLE which, actually, can be translated into two conditions (necessary, not sufficient) for a PLE to be useful to oneself (not talking here about it being "successful" as measured by third parties). If we understand useful as that it serves our purposes in learning more and better, or doing more research and better, then:

- Setting up a PLE means that you really want to learn or do research, and that you're willing to confront what this means. This basically zeroes in performing the processes of analysis, synthesis, abstraction and critique. That is: read, note, think and write. Many people think that PLEs require a lot of reading or writing. Wrong: it is learning that does.
- Setting up a PLE means that you just built a parallel structure to your usual pencil and paper procedures. Maintaining two channels requires extra work. The more you mainstream and focus in just one platform, the better. I myself found my PLE useful once it became mainstream in the production of my knowledge and network. With rare exceptions (and reducing), *everything* is on my PLE.

### 2.2.2. Reading

I would like to make a point before going on with the discussion. While I argue that open publishing (and your PLE fits in this category) should be part of a scholar's commandments (especially if in a publicly founded university or research centre), I acknowledge that the idea of where to publish (e.g. paper vs. blog) is at least debatable. But concerning reading, I have instead a very strong opinion: RSS feeds let you reach more information and in an easier way. Thus, I have serious doubts whether a knowledge worker can be up-to-date in their discipline and/or be efficient in their information management without the help of an RSS feed reader.

Now, being a scholar, reading is a total priority, even if it sometimes will imply me

lagging behind deadlines in other kind of tasks. Of course there are different categories in the things I read, but besides the ones that are strictly personal, reading usually goes first place. So, first things in the morning are e-mail, feed reader and Twitter (some tags and users come in by through the feed reader too) until the morning reading is done or almost done.

The first exercise is to tell things that have to be read "right now" from things that are going to be saved for later. Amongst these, some will be printed or saved in the mp3/mp4 player for the train, or for a quiet moment, and some others will be shifted to the future. In any case, the key thing to do is to read the important things or at least to know what I've got pending reading of interest.

### 2.2.3. Storing

If what I find to be *really* important, I at least read the abstract+introduction+conclusions and save it on a folder on my hard drive. This is a folder labelled with the main topic (e.g. e-readiness) under a general "readings" folder. This is useful afterwards when writing: you can make Acrobat perform a full text search for a keyword in a whole folder. You don't have to remind everything: just know you read something about that and that it has to be "somewhere" in those folders.

If the article is read thoroughly, it will go to the [bibliographic manager](#) and sometimes even to the [blog](#) with a comment or a reflection.

Sometimes what gets to me is not an article, or the article has some extra information worth keeping apart. In that case, the [wiki](#) plays its part. For instance, the last edition of Leonard Waverman's [Connectivity Scorecard](#) will be included in my bibliography. Nevertheless, because the datasets have now been made public online, a [Connectivity Scorecard](#) entry will be created in the wiki. This is laborious and makes little sense in the short run. In the long run, your list of [ICT Indices](#) and [ICT Data](#) sources is always up-to-date, you can easily list all the works you've read by [Leonard Waverman](#) or [Kaylan Dasgupta](#) or under the category of [e-Readiness](#) or tagged with [connectivity scorecard](#). In the long run, the effort pays back, it far does.

Once you think you've more or less scanned a topic, posted about it and created the necessary references, then you can forget about them: you know they'll be on your blog with the reflections you got at that time and the interlinked references with other works, comments, authors, etc.

I gather information on a double basis:

- things I know 100% I'll be using, e.g. the World Economic Forum's [Global Information Technology Report 2009-2010](#), a reference in the field of e-Readiness and digital development;
- things I might use somewhen: politics 2.0, for instance, or e-government. Not sure whether I'll be using them, but likely, as it normally ends up happening. e.g. Last year I wrote a [book chapter on Spanish Politics 2.0](#). During a year and a half I had been gathering info on that topic "just in case" and storing it in my hard drive, putting the main references in the bibliography and saving the rest "for later". I knew, when I got the proposal to write the chapter, that whatever I got it had to be there. There was a lot of crap, but enough good references to prepare a fair chapter. "Just in case" also works pretty much well to update syllabuses or to prepare non-academic conferences, as they are full of facts and good examples.

What about [delicious](#)? I normally use it just for (a) news or (b) applied practices/examples. In other words: information with expiry-dates or that interest me just to build lists. Delicious is useful for me to quickly share resources that need low elaboration.

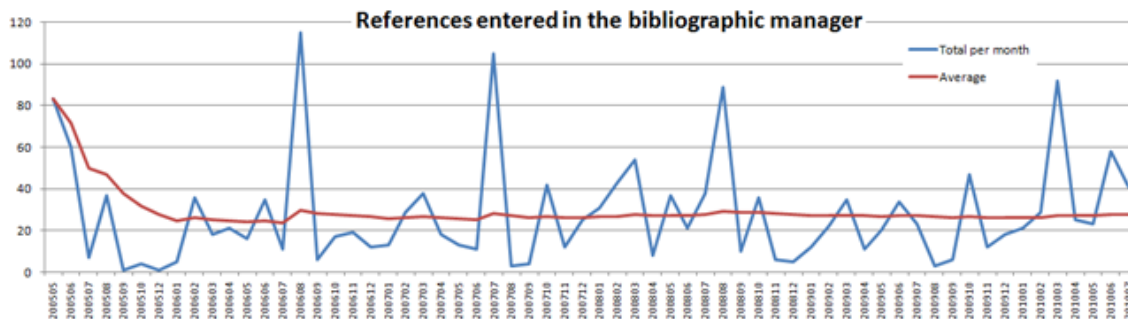
So, summing up:

- If I find something that seems really relevant, I scan it and store it the best way possible.
- If I you find something that is just probably relevant, I store it under a "tag" in the hard drive and in a way I can later perform brute force searches without crashing my computer (this procedure is diminishing along time and being

substituted by the former one and trashing leftovers).

The following chart plots the references entered in the bibliographic manager since it went online (May

2005). Simple as it is, it shows two things: the first one is that despite some irregularities, the average has *always* been around the 27 new entries per month, which implies how mainstreamed the tool is with my daily work; the second one is that, besides the long-term regular pace, some months are "better" than others and can be easily identified as (a) periods of preparation of papers/speeches and (b) holidays, often used to "catch up" with pending readings.



[References entered in the bibliographic manager \[click to enlarge\]](#)

## 2.2.4. Sharing

Some of the sharing can be inferred from the storing, as the whole PLE is open (with just a very very few exceptions).

If we follow the information management timeline, some interesting news are shared through Twitter, either directly (using retweets or [bit.ly](#)) or indirectly: my [Google Shared](#) account directly sends everything to Twitter and everything that goes to [delicious](#) is made public at the moment.

As can be seen in the image image in [The Workings of a Personal Learning Environment \(I\): the infrastructure](#), the [lifestream or aggregator](#) and [FriendFeed](#) collect all the activity from the several applications and services I use (blogs, updates to the wiki and the bibliographic manager, [Slideshare](#), [Youtube](#)... not Prezi), being the main difference that FriendFeed gathers "social" information (Facebook, LinkedIn,



Dopplr) that the aggregator does not.

Talking of which: I still have to find a return for Dopplr and Google Calendar. I think they give a sense of presence (of "realness") worth keeping. Besides, Google Calendar holds right now three calendars: one gathers the [public events I attend](#); a second one is my teaching schedule (more about this in the third

part: [The Workings of a Personal Learning Environment: the institutional fit](#)); the third one is the [ICT4D Calendar](#), a collaborative project and an easy way to keep track of ICT4D conferences while also letting others know about them. I'm pretty sure the latter is the most important as, within its limited success, it is a good trial on decentralized collaboration.

### **2.2.5. The Institutional Fit**

If in the two previous sections we have seen what can the infrastructure of a PLE be like and what can the workflow be, we here will see how the personal fits into the institutional. I agree that [PLEs are not just tools but ways to understand learning on the Net](#), hence the debate around institutional or non-institutional PLEs may seem void. Still, I think this question is indeed relevant because, beyond their learning specificities, I believe in PLEs as a driver of change in formal learning en educational institutions, as a wedge that breaks through the interstices that have opened in the education system.

### **2.2.6. An introduction to the (new) UOC Campus, a virtual open campus**

In the last years, my colleagues at the [Office of Learning Technologies](#) (OLT) at the Open University of Catalonia have been doing a terrific job in preparing our virtual campus for openness.

Being part of the faculty and not part of the OLT team, I'm not fully knowledgeable of [all the work that has been done there](#), but I can speak of perceptions, which is most of the times what in the end matters. And the perceptions are that our campus has undergone (at least) two drastic transformations in the recent years from the

standpoint of view of the user:

- The [Campus project](#), a multi-stakeholder initiative, changed our virtual campus from a closed legacy system into a service-oriented architecture that now can interact or incorporate most services and applications existing around, from modules from other LMSs (e.g. a Moodle classroom) to the most common web 2.0 applications (e.g. a Wordpress blog). These services can be selected (with
- the required profile permissions) and set up into a classroom at will. New services and apps take from one to two semesters to be added to the current pool of options, depending on complexity. The [MyUOC](#) project provided each and every university member with an "i-Homepage" inside the Campus, the flavour of Netvibes or iGoogle thus allowing for a brand new path towards personalization and external information self-integration (i.e. DIY integration of external information, not top-down led).

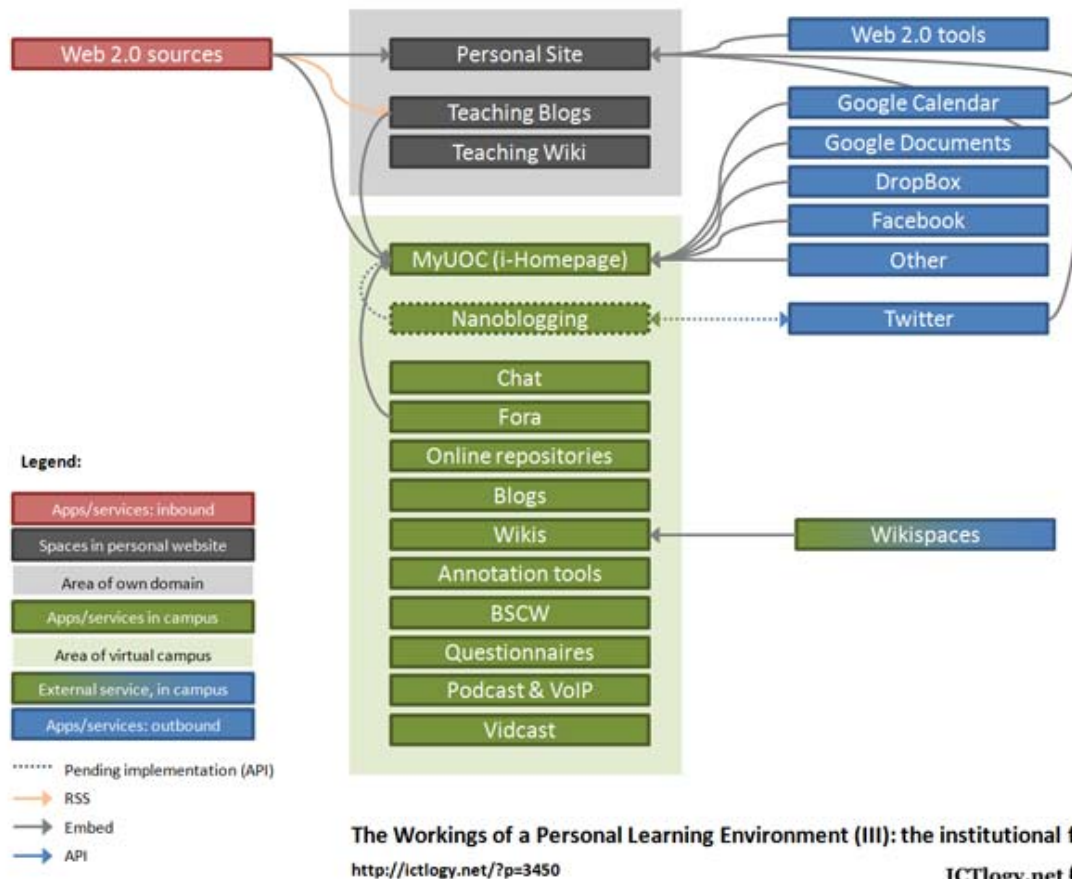
### 2.2.7. Fitting the personal into the institutional

So, what have these changes meant? And, especially, how is that new virtual campus coping with my own PLE?

The following image re-visits the [infrastructure of a Personal Learning Environment](#), simplifies it and puts it in relationship with the infrastructure of UOC's virtual campus (also greatly simplified).

Of the virtual campus (painted in green), I listed several web 2.0 applications currently in use. These are the usual suspects: on-site installations of blogs, wikis, fora, repositories, question tools, etc. Of course you do not always (for several reasons) can or want to install something in the campus. Then, you always have the option to install it in your own web server (i.e. your own personal learning environment or, in this case, your personal teaching environment) and either call it with a link from the virtual classroom.

But there are better ways to cross the line that separates the walled garden of the virtual campus from the rest of the cyberworld:



[The interaction of a LMS and a PLE \[click to enlarge\]](#)

- The **MyUOC i-homepage**, which now can hold information from third parties. Some of this information is retrieved by using widgets especially adapted to the campus. But potentially all kinds of information, apps and services can be embedded by means of iframes. Simple (and not elegant) as this solution may be, it definitely works and lets any user (i.e. me) to add information without bothering or requiring anyone to code anything. I'm currently using this page to collect in there my academic schedule on a Google Calendar, the dropbox account I use(d) to share huge MSc thesis documents and datasets with an student of mine living in Panama, Google Docs with a collectively edited and authored ongoing book, or the teaching blogs that I installed in *my own* site but for teaching purposes and to be used by campus students.
- The **Wikispaces wiki**: unlike your typical Mediawiki or PmWiki installation, which resides *in* your LMS (we use these too), you can now use a wikispace which lives *outside* the campus (i.e. at [Wikispaces](#)), though it has been wired to the campus so that the user is automatically kept logged in so they do not have

to bother whether they are in or outside. Again, simple as this might sound, it does not only enables installing external applications to your campus, but use external services that may not be available for custom install.

- Third, the **nanoblogging** project (being implemented in the next two semesters in different phases) will bring StatusNet to the classroom in a first phase. So long, no big news: there is, of course, technical stuff to be done, but it is "only" a matter of installing and wiring tools and classrooms. I'm not trivializing this part, but "conceptually", there's no big difference with setting up the first blog. Hopefully, though, in a second and third phase, the idea is to bring the nanoblogging timeline to the MyUOC i-homepage and to make possible an interaction with Twitter. If everything goes well (time, resources, etc.), it should very much look like what was described in [The Hybrid Institutional-Personal Learning Environment \(HIPLÉ\) into practice: an example with Twitter](#), where the boundaries of the virtual campus are totally overridden.

## 2.2.8. Back to the Hybrid Institutional-Personal Learning Environment

At this point, it is necessary to pay back a visit to the concept of the [The Hybrid Institutional-Personal Learning Environment](#)(HIPLÉ). Even if still at a very low level and with a lot of effort invested, the LMS I've been mainly using for almost 11 years and the PLE I started almost 7 years ago now speak one to each other. They sometimes speak in smoke signals, they sometimes speak like Italians and Spaniards do (each one in their own language, but more or less understanding each other), but speak they do.

Why is this so important?

It took years to journalists and, especially, to news businessmen to understand that the monopoly of news distribution was over, and that there were news streams outside mass media. Part of the crisis media are living today comes from the late understanding (and negation) of that fact, with consequences in job losses, decreased quantity of quality information, negative effects on democracy... you name

it.

While journalism is important, I believe that education is even more important... and much more complex. As it happened with news, learning is increasingly happening "out there". And if blogs were the main tools of "citizen journalism", PLEs are becoming the tools of out-there-education.

It is my opinion that all the forecasts about the emergence of life-long-learning, informal learning, social learning, etc. are coming true, but are taking place outside of formal education and its walled institutions. And while educational institutions — and their components, including assessment, accreditation and educators — definitely need a dire transformation, they still play a [core role in our society](#).

And it is precisely here, in bridging what is happening in out-there-education with the important socioeconomic role of educational institutions that PLEs can come to the rescue. As we have just shown, PLEs can permeate the waterproof membranes of educational institutions, the brick walls of classrooms. PLEs as personal research portals (PRP) can turn the academic ivory towers into crystal, enabling peeping the inside... and bringing some external light to its dark matters too.

That is why, in my opinion, PLEs are not only learning tools, not only ways to understand learning on the Net or to understand informal learning. In my opinion, PLEs are transforming drivers with an extraordinary potential for change.

## 3. The Hybrid Institutional-Personal Learning Environment

### 3.1. Introducing the Hybrid Institutional-Personal Learning Environment (HIPLE)

In [Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning](#) I made a plea for equidistance and eclecticism and performed a first exploration on how to cope centralization with decentralization, the institutional and the individual, the traditional Learning Management System (LMS) with the [undefined](#) and [polymorphous](#) Personal Learning Environment (PLE).

Two concurring projects in the last weeks make me revisit that topic:

- My participation in the implementation of a very small line in the [Strategic Plan 2010-2014](#) of the [Open University of Catalonia](#), which consists in foster student participation in the Virtual Campus, based on the philosophy of social networking sites.
- My participation — along with [Carlos Casado](#), [Enric Mor](#), [CÀ©sar CÀ³rcoles](#), [Gemma Aguado](#) and [Juan Francisco SÁInchez](#) — in an educational innovation project to test different uses of Twitter in an online classroom.

#### 3.1.1. Common issues

Both projects share some issues — I dare not call them problems, though some of them are absolutely challenging — that have definitely to be addressed before implementing any kind of project:

- With the increase of broadband penetration and the popularization of Web 2.0 tools and spaces, **most participation (and a lot of it, indeed) happens outside the campus**, unlike what was usual just 10 (or even 5) years ago.
- With the realization of the concept of long-life learning, **it is increasingly difficult to tell students from non-students, and even from members of the university community from non-members**, specially when you can [attend](#)

[conferences online](#), [download learning materials](#) or follow the faculty or institutional initiatives on [Twitter](#) or their own [blogs](#).

- Just for the two previous reasons, **one's own learning management increasingly happens off-campus** too.
- And yet there's the issue of where the experts are. Some of the experts are in-campus, but many of them (other faculty, professionals, potential employers) are off-campus too. And **we definitely want our students to meet the relevant (online) communities of experts** and people they should (and we want them to) be in contact with.
- But: learning monitoring does require a certain degree of **centralization and closeness or quietness**, for many reasons: assessment, guidance, "noise filtering"... Or, at least, some educators feel more at ease in these "controlled" scenarios. Not to speak about managers.
- And: some **people are reluctant to use all that arcane network technologies**, because of lack of knowledge, lack of competence, even lack of social skills.
- And: some people just do not want to have their **identity spread all over the e-place**, but to be able to manage different digital personnae. Sometimes for privacy; sometimes for security reasons.

### 3.1.2. A proposal

So, there are people in and people off the Virtual Campus. There are geeks and [explorers](#) and *digerati*, and there are refuseniks and [robinsons](#) and [goffmans](#) too.

So, to respect and answer all demands, what do we need?

- That the **members of the university community that so wish it, can interact with their peers and teachers and all kind of educational resources with the tools and platforms own choice** (e.g. off-campus), and thus concentrate or diffuse their activity at will.

- That the members of the university community that so wish it, can **maintain an idea of a campus as a space dedicated to learning, and use the tools within** without having to disperse their energies (and attention) in (for them) low added value activities.
- Despite the above said, **tear down the concept walls of in- and off-campus, and member and non-member of the learning community.** Let third parties participate of learning life, and let active and formal learners participate of informal learning or professional life.

### 3.1.3. What's in a name

I ask for a hybrid-institutional personal learning environment. I ask for a HIPLÉ:

- The HIPLÉ is a PLE.
- The HIPLÉ is a hi-PLÉ.
- The HIPLÉ rhymes with hype ;)

At this point, please allow me to bring back what I draw in Figure [Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning](#).

## 3.2. The Hybrid Institutional-Personal Learning Environment (HIPLÉ) into practice: an example with Twitter

In the previous section, [Introducing the Hybrid Institutional-Personal Learning Environment \(HIPLÉ\)](#), I dealt with the different profiles, behaviours and needs that concur in online education (or online enhanced education). I also asked for a way to be able to give a satisfactory answer to all the problems that arouse with that concurrence while being able to swim and keep one's clothes dry at the same time (as we say in Catalan).

Let us put it into practice with a totally applied example using Twitter.



### 3.2.1. The typical situation

The context is an online course on e-Government. There is a character ([ONcampus](#)) which is a student that, for unspecified reasons, just wants to access the virtual campus to study and that everything that happens on the campus remains unknown for the outer world. There is a second character ([ictlogist](#)) that is also a student and uses several Web 2.0 tools for learning (call it a Personal Learning Environment or PLE), amongst them Twitter, and just does not want to use two nanoblogging tools, one on-campus and another one off-campus. A third character ([OFFcampus](#)) is a professional working on eGovernment and, as such, uses Twitter to interact with other people on the field.

What you usually would have is two conversations:

- Inside the campus, a closed conversation that neither benefits from "outside" conversations nor contributes to them. Including the student remaining unknown to other people on the field.
- Outside campus, an open but not-permeating-the-campus conversation and that forces some people to attend two conversations on the same field mostly with different people but similar purposes.

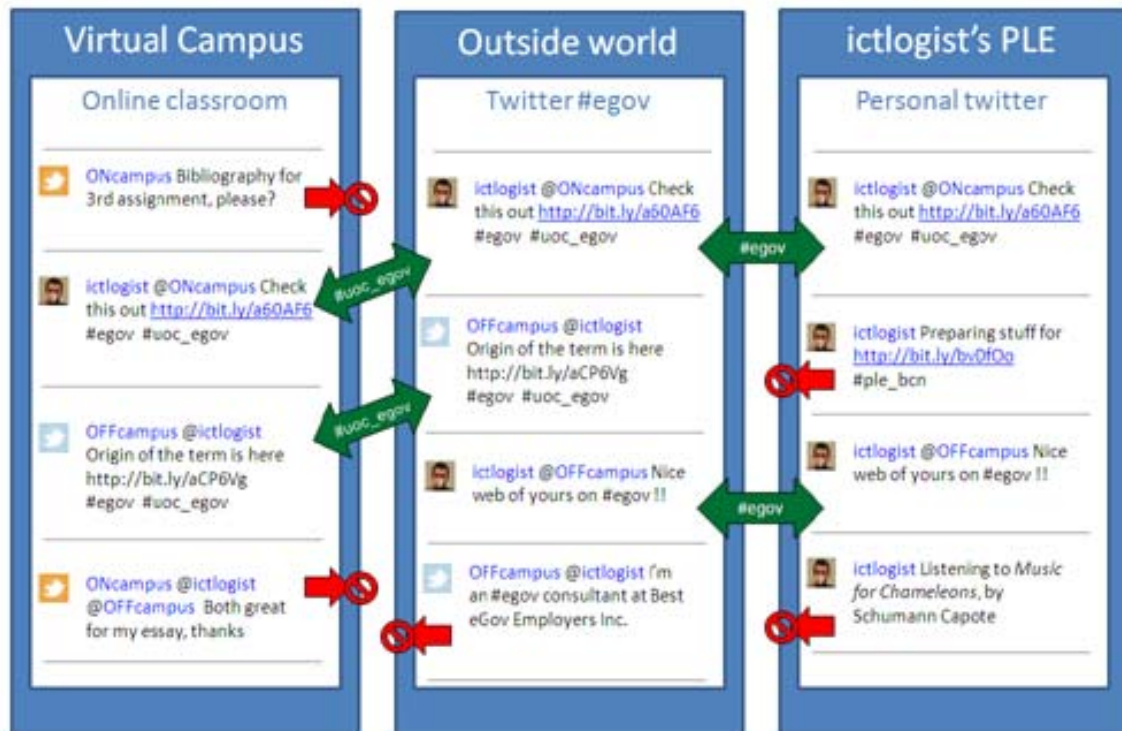
### 3.2.2. The HIPLÉ to the rescue

Imagine a nanoblogging tool (e.g. StatusNet) installed inside the virtual campus classroom. Everything that happens in there is invisible to the outside world. But everything you tag with [#uoc\\_egov](#) (the "official" hashtag for the course) is published on Twitter.

In fact, everything you publish on Twitter with the [#uoc\\_egov](#) hashtag is *imported* onto the nanobloggin tool installed in the virtual campus, so everyone can see it. Thus allowing people to participate in the closed classroom from outside of the campus.

In fact, messages from other people alien to the closed classroom can also be seen

inside the classroom, provided that (a) they add the #uoc\_egov hashtag and (b) we have not added a filter to the closed nanoblogging tool that not only filters by hashtag but also by user (in this case, students could participate from their Twitter accounts but the classroom would only be participated by enrolled students).



The Hybrid Institutional-Personal Learning Environment (HIPLE) into practice: an example with Twitter

<http://ictlogy.net/?p=3393>

ICTlogy.net

[The Hybrid Institutional-Personal Learning Environment \(HIPLE\) into practice: an example with Twitter \[click to enlarge\]](#)

### 3.2.3. Benefits

- Students can opt to participate only in the classroom and be invisible to off-campus users. Students can opt to participate from outside the classroom and with their own tools. In the limit, they will *only* participate from their own PLEs and not from the virtual campus.
- Off-campus students engage in *real* conversations with "real" professionals and experts in the field. Exposure is likely to be good.
- Faculty and managers can, if thus desired, use the closed environment to

"contain" what is to be monitored or assessed, and without the need to wander around "chasing" spontaneous and ubiquitous contributions from their students.

The increase of open APIs shouldn't make these kind of developments very difficult. Of course there are thousands of applications and one will always have to choose which ones to "bridge". But (a) there are not many *really popular* applications and, in fact, (b) that is what standards are for.

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See also the author's blog on the Information Society, the Digital Divide and ICT4D: <http://ictlogy.net/>

This "working paper" is a collection of articles appeared in [ICTlogy, review of ICT4D](#), and that were put up together with the help of [Anthologize](#) as an exercise to experiment with that tool. They have almost not been edited and thus the inner structure and cohesion may have suffered from this. The original articles can be found at:

- Mapping the PLE-sphere (<http://ictlogy.net/review/?p=3437>).
- Funnelling concepts in Education 2.0: PLE, e-Portfolio, Open Social Learning (<http://ictlogy.net/review/?p=3323>).
- The Workings of a Personal Learning Environment (I): the infrastructure (<http://ictlogy.net/review/?p=3448>).
- The Workings of a Personal Learning Environment (II): the information workflow (<http://ictlogy.net/review/?p=3449>).
- The Workings of a Personal Learning Environment (III): the institutional fit (<http://ictlogy.net/review/?p=3450>).
- Introducing the Hybrid Institutional-Personal Learning Environment (HIPLÉ) (<http://ictlogy.net/review/?p=3389>).
- The Hybrid Institutional-Personal Learning Environment (HIPLÉ) into practice: an example with Twitter (<http://ictlogy.net/review/?p=3393>).



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