

Education and Training Committee: AGM2011 report



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Commitee members

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Secretary:	Emiliano Barreto
Member:	Bruno Gaeta,
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The activity that was proposed for the 2010-2012 started in the Summer of 2010. Some work had to be put into a better definition of short and long term priorities, an assessment of the difficulties and costs involved, etc.

Mostly there were discussions over the e-mail and on the telephone. We started a series of contacts with prospective authors for the materials that we intend to develop.

Virtual Training

We have realised that there is no sufficient data to be able to make decisions on that. Using the Gulbenkian Training Programme in Bioinformatics (GTPB) programme at the Portuguese node as a possible way of performing comparative experiments, we have been collecting information in the following ways:

- we have made video recordings using commercial equipment for lecture capture on loan ([Sonic Foundry MediaSite](http://www.sonicfoundry.com/mediasite/))¹. Our intention is to evaluate usage utility with several classes of attendees. Experiments with the materials will start in June 2011;
- we have tried support platforms for running practicals, such as websites and collections of documents (samples available); we have tried remote audiences using collaborative tools such as Adobe Connect. We will also test [Webex](http://www.webex.com/)² in an upcoming training course.

1 <http://www.sonicfoundry.com/mediasite/>

2 <http://www.webex.com/>

So far, the conclusion is that only a mixture of methods can cover the specific needs of Bioinformatics training.

We have "Server side" data collection in progress at the moment, building towards a clear definition of requirements.

EMBnet Kits

We have made a series of contacts with potential authors for the materials. Mostly with positive results. We have also conducted a rough evaluation of costs.

As an exercise, we have started a feasibility study on the production of an "Introductory Bioinformatics" book. The conclusion is that it is not an opportune idea, moreover we know of two competitive books coming-up in 2011-2012, backed by commercial publishers.

So, we carry on with the idea of the kits based on materials on electronic support.

We are making the first plan for the "Embnet student kit" and starting the pre-plan for the "Agro" and "Food" kits, in connection with volunteers from universities.

Training for active Bioinformaticians

The format model of the GTPB "Foundations" courses is currently under review. An additional idea is under preparation based on the model of Role Playing Games: a bioinformatician brings previously worked problems to the training room playing the role of a user asking for support. The trainers follow with a series of suggestions that are explored in the training room.

Software for collective exercises

Commercial vendors are not interested so far. We have contacted several commercial vendors, but the general attitude is that they are interested in the undergraduate market and not in cooperation. We are currently exploring open source solutions but all of them require adaptations for which we have no manpower.

Quick Guides

A survey is under preparation to probe for interest in new Quick Guides. The level of response is still low but there is a clear incidence in "R", "Bioconductor" and "Primer design".

We believe that there is room for a new way of thinking about these kits, that reflects the change in the the majority of end users, that has shifted away from "command line" into GUIs, and, in

particular, web interfaces. This is up for a discussion in the upcoming Annual General Meeting (AGM). As stated in our business plan, cooperation with the TMPC is deemed necessary.

Cooperation with ISCB

We see the recent [joint press release](#)³ (26th April 2011), as a positive step toward a fruitful cooperation. There is a real chance of defining its contours in the upcoming AGM, that will be attended by Fran Lewitter (Whitehead Institute), who chairs the [Education Committee of ISCB](#)⁴. Bruno Gaeta, manager of the Australian EMBnet node New South Wales Systems Biology Initiative (SBI), is a member of that committee. We will explore the possibilities of making our plans converge for the benefit of users and communities of users worldwide.

Bioinformatics Training Network (BTN)

Pedro Fernandes and Terri Atwood are founding members of the [BTN](#)⁵, that is keen on optimising training methodologies in Bioinformatics. The group has now come-up with a website where resources are being organised. We believe that there are big benefits in cooperating with BTN, such as not duplicating efforts, for example. Again, the contours of such an intention for cooperation are not yet defined, but a proposal can be prepared at the upcoming AGM.

Reflections on Education in Bioinformatics

The ET PC is preparing a set of recommendations that are a mere reflection of our concerns about undergraduate and graduate education in the sense of promoting best practices in the educational universe. It is generally felt that education in Bioinformatics is insufficiently supported by professionals and that more practical work should be introduced, based on a standardised set of problems. The "EMBnet kit for students" - in the initial phase of preparation at the moment - can become the embryo of such an idea. We will evaluate these possibilities more carefully when our cooperation with ISCB is better defined.

3 <http://journal.embnet.org/index.php/embnetjournal/article/view/217/477>

4 <http://www.iscb.org/iscb-leadership-a-staff-/112>

5 <http://www.biotnet.org/>