GOBLET

TGAC, Norwich, 25-26 March, 2013

Overview

• Evolution & mission
• What we’ve been up to
• Future directions...
Evolution

• Ideas to bring bioinformatics trainers/organisers together, to share experiences/materials emerged during last 6yrs
  - ELIXIR Training Strategy Committee WP11 (Tramontano)
  - FP7 SLING project (Serving Life-Science Information for the Next Generation) WP02 User Training (Brooksbank)
  - the Bioinformatics Training Network, BTN (Schneider)

The BTN

A global community-focused bioinformatics network

Founded in 2009
  UK: Vicky Schneider, Teresa Attwood, Jennifer McDowall, Phil Jones, James Watson, David Judge, Cath Brookbanks
  Switzerland: Marie-Claude Blatter
  Germany: Aidan Budd, Kristian Rother
  Portugal: Pedro Fernandes
  Italy: Allegra Via
  South America: Javier De Las Rivas
  Finland: Tommi Nyronen
  Denmark: Thomas Blicher
  Belgium: Wouter van der Geel

Joined in 2010
  Belgium: Joachim Jacob
  Canada: Michelle Brazas
  The Netherlands: Celia van Gelder

Joined in 2011
  Africa: Nicky Mulder
  Spain: Federico Moran

By 2012:
• >20 representatives from 14 countries
• BTN Organising Committee: Allegra Via (Chair), Teresa Attwood (Vice-chair), Celia van Gelder (Secretary)
BTN Activities

- Organised annual meetings for trainers to meet/discuss/share/do stuff...
  - 2009-2011, hosted by EBI, funded by SLING
  - 2012, hosted by NBIC in NL, travel funded by BTN members
- Published articles on bioinformatics training...

 BTN Publications

2010
Bioinformatics training: a review of challenges, actions & support requirements.
Schneider, M.V. et al. (2010), Briefings in Bioinformatics, 11(6), 544-551.

2011
Bioinformatics Training Network (BTN): A community resource for bioinformatics trainers.

10 simple rules for developing a short bioinformatics training courses

2012
Bioinformatics training for life scientists – Guidelines for best practice
SLING deliverable
Other BTN Activities

www.biotnet.org

- Organised events (e.g., workshops)
- Developed a training/trainers’ repository
  - freely available bioinformatics course materials

BTN Issues

- Sustainability
  - SLING funding ended, August 2012
- So, together we sought
  - new financial model & independent website hosting
- BTN had provided an excellent prototype
  - this allowed us to move forward quickly
  - to evolve towards a centralised resource
  - owned by everyone, possessed by no one
B³CB Meeting
Uppsala, June 2, 2012

International Alliance of Bioinformatics, Biotechnology, Biocuration & Computational Biology networks & societies
To join up world-wide training initiatives

• General consensus:
  – to evolve the BTN & extend its reach we should establish a

Global Organisation for Bioinformatics
Learning, Education & Training

GOBLET
GOBLET
Mission

- Agreed to establish an umbrella organisation, to
  - provide a global, sustainable support structure for bioinformatics educators/trainers & students/trainees
  - facilitate capacity development in bioinformatics in all countries
  - develop standards & guidelines for bioinformatics E & T
  - act as a hub for fund gathering
  - reach out to teachers at high schools, to bridge the gap to the next generation of bioinformaticians
  - foster the international community of B³CB trainers

GOBLET
Ethos

- With an ethos embracing
  - inclusivity (welcoming all relevant organisations, networks, societies)
  - sharing (expertise, best practice, materials, tools, compute resources)
  - openness (using Creative Commons Licence)
  - innovation (welcoming imaginative ideas & approaches)
  - tolerance (transcending national, political, cultural, social boundaries)
22 international & national organisations & networks signed an MoU to establish GOBLET – a neutral foundation, registered in The Netherlands.

Place-holder website established & portal in design.
• Kick-off meeting held in Amsterdam
  → 28 November 2012
• Grant application submitted to host next one in Toronto
  → Canadian Institutes for Health Research
• Arrangements in progress for interim meeting at ISMB
  → established a poster track for education
• Discussions in progress for 2014 meeting in Manchester
• This workshop to build relationships with ELIXIR
• Kick-off meeting held in Amsterdam – 28 November 2012
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• Paper submitted to Briefings in Bioinformatics – Best Practices in Bioinformatics Training for Life Scientists
**Survey on training needs amongst Life Scientists**
- for those using bioinformatics tools, to determine the areas & format in which they'd like training
- >200 responses

<table>
<thead>
<tr>
<th>Observation</th>
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<tbody>
<tr>
<td>Countries</td>
<td>75% Europe</td>
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<tr>
<td>Respondents/career stage</td>
<td>35% PD/RA, 32% MSc/PhD</td>
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<tr>
<td>Respondents/discipline</td>
<td>33% plant science</td>
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<tr>
<td>Current learning method</td>
<td>76% self taught/colleagues</td>
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<tr>
<td>Level of confidence</td>
<td>33% level 3 (scale of 1-5)</td>
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<tr>
<td>Training required</td>
<td>67% analysis/interpretation</td>
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<td>Preferred delivery method</td>
<td>74% workshop/57% e-learn</td>
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“Although I am aware of bioinformatics courses, there is not enough publicity or not enough of them to cover our needs.”

“There should be more awareness that older biologists are very keen to learn new bioinformatics techniques to continue research in our fields.”

“It would be great to provide slides used for teaching in the courses.”

“Bioinformatic training is imperative (in my opinion should be taught in life science disciplines at the university). I highly support your initiative.”

“There are so many bioinformatics techniques, softwares, etc, it would be great to have a central wiki devoted to introducing people to packages & analysis methods.”
Survey on training needs amongst Life Scientists

- “Large data statistical analysis skills & software are lacking. Need to train more people on this.”
- “Training is very difficult to timetable with work demands so great.”
- “Perhaps a common repository of code for analysis to improve access, use & standards in analysis. Otherwise it is very hard to repeat bioinformatic analysis carried out elsewhere.”
- “Interpretation is more important than the analysis.”
- “I think this is a really good initiative & hope to hear more from it”
- “More training in this area is vital for plant scientists to develop their employability.”
- “There are several initiatives out there. Would be great to compile resources in one place.”

Survey on training needs amongst Life Scientists

- “In the biocuration field I wonder what kind of workshop can be offered?”
- “The field is very "computer-centric". The tools need to be more transparent (intuitive?) to the user. You don’t need to understand mechanics to drive a car, and you don’t need to know programming to use Google. Bioinformatics needs to be very "user-friendly" to biologists & biochemists.”
- “I think what you are doing is of great value! I think some basic scripting course would be of great value to many in this field.”
- “We need an accreditation mechanism similar to board certification for MDs & the Bar for lawyers.”
- “This is an enormously important questionnaire. Thank you.”
• Questionnaire responses say it all!
• This an opportunity for GOBLET & ELIXIR to begin shaping the future…together!
Thanks for your dogged attention!

Questions?

ELIXIR-UK/GOBLET Trainers Workshop 2013

Expected Outcomes for ELIXIR-UK/GOBLET

- Begin together to tackle/work on solutions to problems shared by the ELIXIR-UK & GOBLET communities
- Begin to build a register of trainers
- Begin to build an inventory of training resources
- Begin to build a panorama of existing training activities across the three disciplines (B, CB & C)
- Begin to build a training ‘gap map’ across the disciplines (B, CB & C)
- Begin to gather info on methods for evaluating training activities
- Gain intelligence about mechanisms of training & their effectiveness
- Begin to explore the scalability of training mechanisms (e.g., MOOC)
- Gain deeper insights into the ways in which ELIXIR-UK/GOBLET could/should facilitate training activities