

CoBLET2022

Eduthon

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Trigger 2: Ways of solving the geographical lack of advanced training in some bioinformatics areas

- In some countries/regions, the trainings hardly ever reach to advanced levels due to the lack of experts in the country/region.
- Also, there is imbalance in the fields of expertise (for example, there are many people working in structural bioinformatics in one country, but difficult to find experts in genome informatics, which may make bioinformatics in the country difficult to grow).
- How do we bridge this gap?

Roots of the Problem

- Interdisciplinary nature of the field
- Experts may lack advanced training
- Students may lack the necessary background
- Limited infrastructure to support advanced training
- Limited funding of broad support
- Academia-industry disconnect (narrow demand-narrow supply)
- Perspective bias (e.g. training for local demand vs global demand)
- Lack of ideas and/or their implementation

Existing Solutions

- Various ad-hoc opportunities (workshops, summer school, seminars, MOOCs, etc.) for breadth and depth of education and training
- Elective/enrichment courses at the degree level
- Complimentary infrastructure support (cloud service; opensource software and tools)
- Funding support from international agencies (e.g. NIH, ICGEB, EMBL, welcome trust, etc.)
- Top (e.g. government)-down and bottom (e.g. grassroots)-up support to bridge the demand and supply between academia and industry
- More (local/international) exposure and awareness
- More innovative solutions

Our Contribution

- A global meta-registry of bioinformatics alliance
- Goal: mitigate the imbalance in bioinformatics expertise and disseminate the opportunities
- Features
 - Listing of experts and associated feedback/review/ranking
 - Listing of clients' needs and demands
 - Matching of the client (students, academics, industry) with experts using AI with funding benefits that go back to the expert/organization
 - Listing of bioinformatics societies, networks, and organizations
 - Listing of funding opportunities
 - Listing of job opportunities
 - Listing of education/training opportunities (e.g. workshops, exchange programs, summer school etc.)
 - Listing of interest/discussion groups
 - Listing of achievements/milestones/deliverables because of our registry
 - Content organized according to an ontology of subdisciplines in life sciences

Ease of Implementation

- Cloud hosted
- Low cost
- Minimum manpower
- Limited Maintenance
- Requires dynamic updates, which can be automated
- Self-sustaining (free with a subscription for premium features)