H3Africa eLearning Strategy

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Outline of Talk

• Overview: Human, Health and Heredity in Africa consortium (H3Africa)

• H3Africa eLearning Strategy
  – eGenomics Catalogue
  – mGenAfrica
  – H3ABioNet Network – Bioinformatics Training
  – H3Africa Blended Learning Approach
  – Evaluation Framework
    • Future work
H3Africa
H3Africa – Training Focus Areas

- Bioinformatics
- Epidemiology
- Genomics
- Biology/Genetics
- Ethical Legal and Social Implications of Genomic research (ELSI)
- Laboratory Skills
- Professional Development Skills
eGenomics Catalogue
eGenomics Catalogue: Process

1. Source & annotate material
2. Central Spreadsheet of online material
3. Webpage
   - Courses/Workshops
   - H3ABioNet Curriculum
4. Users access and write reviews about each course
5. Endorsement
## H3Africa Online Catalogue

### Search by Type:
- Book
- Journal
- Lectures/Webinar
- MOOC
- Tools/Software
- Resources

### Search by H3Africa Subject Category
- Bioinformatics
- Maths & Biostatistics
- Epidemiology

### Search by EDAM Ontology:
- Biological data resources
- Nucleic acid analysis
- Protein analysis
- Sequence analysis
- Structure analysis
- Phylogenetics
- Proteomics
- Data handling
- Chemoinformatics
- Transcriptomics
- Literature and reference
- Ontologies, nomenclature and classification
- Genetics

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**H3Africa**

Human Heredity & Health in Africa
eGenomics: User-Based Rating System

Text-based feedback

Would you recommend this material (Yes, No)

Clarity
Was the language used easy to understand?

Material

Relevance
Was the content relevant

Organization
Was the material organized logically?

Engaging
Was the material exciting

Reviewer:
Name, Position, Affiliation

H3Africa
Human Heredity & Health in Africa
mGenAfrica

Making Sense of Health & Heritability

Target – General Public
Needs

• No broad public education/engagement in H3Africa (happens in project silos)

• Give support & information to people in Africa living/affected by diseases being studied by H3Africa

• Facilitate public engagement in a collective & broad manner within H3Africa

• Training of H3Africa trainees in Community Engagement
mGenAfrica

**Section 1:** Behavioural Change Communications to give support and information to people in Africa affected/suffering from diseases under study in H3Africa projects. Include genetics/genomics

**Section 2:** Fun ways to engage with the youth.

**Section 3:** Researchers portal. Against each term, researchers will share explanations/translations

**Section 4:** Users to upload their stories
Webinars and Workshops
H3ABioNet: 12 Workshops

Panji & Mulder – NIH Report
(May 2013 – March 2015)
H3ABioNet: 420 Participants

H3AfricA
Human Heredity & Health in Africa

Panji & Mulder – NIH Report
(May 2013 – March 2015)
H3Africa Blended Learning

- Webinar & Face-Face Workshop
  - Manuscript Development

Diagram:
- Webinars
  - Assignments
  - eGenomics Catalogue
  - Vula
  - Face-to-Face Workshop
H3Africa/H3ABioNet Evaluation Framework

ACTIVITIES

Workshops Webinars

Knowledge change (pre/post tests)

TRAINEE SATISFACTION

TRAINER SATISFACTION

H3AFRICA TRAINING ACTIVITY EVALUATION FRAMEWORK
H3Africa/H3ABioNet Biannual – Trainee Surveys

H3AFRICA TRAINEE EVALUATION FRAMEWORK

**SITUATION**
- Lab resources
- Mentorship
- Needs/Challenges

**ACTIVITIES**
- Internships
- Workshops
- Internships
- Mentorship
- Webinars

**OUTCOMES**
- Knowledge
- Training skills
- Publications
- Career Progression
- Collaborations
- Awards
- etc

**IMPACT**
- Competent researchers
- Competent trainers

H3Africa
Human Heredity & Health in Africa
Challenges & Solutions

• H3A Fellows Club Webinar Series
  – Vidyo & Vula (Learning management system)

• Poor Internet Connectivity
  – eBiokit training
  – MP4 files

• Biannual survey – Participatory study

• Visas/Politics/Costs/Infectious Diseases
  – Training via Vidyo?
Future Work

• Improve H3Africa eLearning Strategy

• Advertise the eGenomics catalogue to community

• Develop an Genomics Medicine Curriculum

• Develop new courses – blended learning?

• We welcome feedback!
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