hillhacks - hacking and making in the himalayas

0: Introduction

We are providing a space and place for various temporary hackspaces with technology, art and education workshops, leading into a conference and maker exhibition in Dharamsala/India. This region in the foothills of the Himalayas is directly affected by a concrete idea of freedom as it hosts the Tibetan Community in Exile.

As a group of self-motivated and independent hackers and makers from India, Tibet, Japan, Germany and the US, we want to educate children and the interested general public. We hope to get them thinking critically and creatively and to develop thoughts and ideas with the tools and knowledge they will be exposed to.

Likewise important, we want to bring together the Indian and Tibetan hackers and makers, to have more self-motivated, free and open developments in technology e.g. in ethics, arts and security. With the demise of foss.in, the whole subcontinent has the need for a gathering of the open information society, focused on the love and joy of free and open source technology and knowledge. A celebration of the hacker way, doing things just for the interest, the curiosity!

1: Event

From around 13th of October onwards we will prepare and conduct workshops. Already outlined are workshops that includes soldering and lasercutting, others will teach web development, security, and protection online. In addition there will be some general introductions into topics like Wikipedia or OpenStreetMaps (that is astonishingly good in the Himalayas), networks and the history of the internet and web, as well as the making-side of hacking and using technology in creative contexts.

Besides learning and teaching it is also about the joy and mindfullness: People that think differently about technology and de-emphasize the commercial and exclusionist aspects of it come together and share thoughts to contribute to an open information society. As such a society, we are free to shape our world, if we use the power of our combined heads, hands and hearts – we have more knowledge then all the companies and governments together.

For that reason the workshops culminate into a conference of like-minded people, surrounded by the temporary hackspaces as homes of various projects and their tools. Those homes will be similar to the concept of the assemblies of the CCC conferences – those conferences are are serving as an example in many ways.

The current plan is to have three central themes to the event: Art, Ethics and Security.

A: Technology and Art

This track will focus on hands on workshops to demonstrate how technology can be used in an artistic context. The purpose is to expose people, especially children, to technology being used in non-technology applications. Showing how technology can be used in a creative context makes the subject more human, approachable and interesting. Here tools like the laser cutter will be in the focus of the workshops, but also e.g. Arduino, photography and film editing. Also other creative approaches to culture, music and art might be covered.

B: Mindful and Caring Usage

The location and context of the northern part of the Indian subcontinent with its unstable borders, the constant erosion of internet freedoms and the increasing amount of sophisticated technology in military use show more then ever the need of a mindful and intelligent approach to technology. Topics that will be discussed are: How should ethics be addressed in a technological context? What responsibility do we have with developing and supporting technology? How should internet governance look like? How is society affected by technology, positive and negative? How can we gain broader accessibilty? What means openness and why is it important? But also: How can we increase the development of open hardware? How is hardware produced, recycled or disposed of (Green-IT)? Hands-on workshops in this area would center on various techniques to repair and restore used phones, computers and tablets.

C: Security and Protection

There is a large community of activists in Dharamsala. Activists are traditionally a target for hacking, unsolicited monitoring, or communications sabotage. Recent revelations on breaches of privacy and security in technology have shown, that nowadays everyone is affected. In India programmes like the Central Monitoring System (CMS) or National Intelligence Grid (NATGRID) just recently started. Focusing on the special needs of activists but also on a normal daily life online, hands-on workshops will show how to secure devices and communications, and how to change behaviour online if necessary. In addition the infrastructure itself needs to be protected, there is a huge need of decentralized services distributed amongs the whole network. That means other hands-on workshops would focus on the knowledge sharing and development within experts, what kind of precautions and configurations can be used to protect a private but open infrastructure that is provided in a decentralized manner.

2: Documentation

All possible results will be documented and published in a free and open way. Our planning efforts also aim to create and foster a free and open source documentation on building and running a conference. Everything is already accessible and documented within a wiki, mailing list, etherpads and other free and open source tools, provided voluntarly and in a decentralized manner for and by the community (see hillhacks.in/tools and hillhacks.in/timeline).

3: Timespan

The event will be two weeks long and is scheduled so that at the end of hillhacks, the Dharamsala International Film Festival will start. In the first week we expect less attendance and we will focus on non-core events and build-up. The second week will have the core events and the larger talks will be scheduled on the final weekend. The time span will be approximately 10/13 to 10/28 with the bulk of the scheduled events happening 10/18 to 10/26.

4: History

The seeds for hillhacks started out from a discussion with Ritu and Tenzing, the organizers for the Dharamsala International Film Festival and Akiba, an open source hardware developer from Japan. They were discussing the possibility of doing an art&technology event in Dharamsala that centered on hands-on workshops. The main purpose would be to expose local residents and children to digital fabrication and many of the things that are possible today. Since Dharamsala is remotely located in the Himalayan foothills, digital fabrication seems an ideal skill to have since people could fab hard-to-find/get tools or fixtures on demand. One focus of the event at that time would be to get some digital fabrication equipment to the area such as a laser cutter that could stay in Dharamsala

and be put to use. Since then the scope of the event has become much broader, although this is still included and the fabrication tools have already been purchased and are on their way to Dharamsala.

At the time of the discussion, Ritu and Tenzing's website was also under attack by malicious hackers. Dharamsala is one of the most hacked places on earth due to the political significance of the Tibetan community-in-exile. We discussed the possibility of having a network security side to the event as well.

Half a year later sva met Ritu and Tenzing when she was living in the local hackbase in Rakkar near Dharamshala: It was at the end of a six month period in India, wherein she had explored this place as a country of amazingly skilled technologists, whereas those techies seldom play around with technology just for curiousity and the joy of it. Seen from the perspective of the Indian society, doing "work" without getting money, learning and gathering knowledge without any certificate is not appreciated much. Sva's background is with the Chaos Computer Club (CCC) in Germany, where it could be seen as the opposite. By giving talks, organizing cryptoparties and attending other events across India she got the feeling, that there are plenty of people who would like to contribute to an open information society, but often feel alone, not confident or just don't know where to begin. She was asked: "Why don't we have something like CCC in India?" Her answer was: "Just get together and start!", and the idea of an hacking and making event was born.

On meeting sva the two filmmakers promptly connected her to Akiba, and soon the two ideas merged into this happening in the foothills of the Himalayas. Meanwhile many people and organizations started to donate time, money and effort to help flesh the event out.

See more on hillhacks.in/timeline.

5: Planned Content
The content of the workshops is still evolving as we try and line up the logistics. There is a lot of potential so it will actually require trimming and focusing. In the follwing the most relevant examples. Updates on this list can be found at hillhacks.in/what#content

- Tech/art creative workshops: Creative computing workshops with content organized by staff and instructors from MIT Media Lab as well as others volunteering to teach workshops
  - Creative coding for kids using Scratch
  - Technology for Artists
  - Papercraft electronics
  - Soldering 101
  - Creative technology with Arduino
  - Film/Audio editing, shooting techniques

- General technology workshops:
  - Wireless and secure communications
  - Environmental monitoring with wireless sensor networks
  - Mobile phone repair (mostly simple repairs such as screen/digitizer replacement, replacing logic boards, fixing wiring and charging issues)
  - Notebook PC repair/servicing (tearing down and rebuilding Lenovo Thinkpads we'll be using for other workshops)
  - Network penetration testing with Metasploit
  - Wireless network security auditing using Kali Linux

- Privacy, anonymity, and secure communications with Tails Linux
- Use of PGP/GnuPG for mail and files (PC and mobile)
- Use of open IM protocols like XMPP with OTR for encryption (PC and mobile)
- Use of Tor (PC and mobile)
- Passwords, passphrases and how to remember and secure them
- Open Street Maps - beginner and advanced usage workshops
- How to edit and use Wikipedia; also discussions on advanced issues e.g. regarding the variety of different languages in the region
- HTML, CSS, devoloping and administrating websites (citizen journalism)
- Unix commands
- Hopefully other non-technical workshops focusing on art, (local) craft, film, dance, music, yoga, and other relevant topics for the region

- Ideas of talks and discussions:
  - Decentralization of infrastructure
  - What is the internet, where does it come from and where does it go?
  - Alternative networks
  - Licencing software, hardware and other things we develop (e.g. including non-military use etc.)
  - Confidentialy, integrity and authetification/authorization in networks and our daily communication - how can we implement this?
  - Openness
  - Accessibility
  - Internet governance
  - Women and technology
  - Tibetan issues and local initiatives
  - Movies and technology
  - Art'n'beauty
  - Cryptography and security
  - Hopefully talk by secretary general of Tibetan Childrens Village

6: About the Himachal Hill Hackers (H3)

6.0: Introduction
An open coalition of independent community volunteers. H3 is based in Dharamsala/India, but the volunteers are a composition from different countries all over the world. We are just a group of people spending time and tools, aiming for the same (that is: education and exchange), because we want to do good. Everything is just newly set up. Most people involved so far are from India and Tibet. Main input in time, money and tools is coming from Akiba (Japan) and sva (Germany, based in Dharamshala); also included are people from around the world based in Dharamshala, people involved in Indian and Tibetan NGOS and other organisations like MIT Media Lab or Chaos Computer Club from various places world wide. More: hillhacks.in/who and hillhacks.in/partners.

6.1: Form
The open group got together in a spontaneous and dynamic way. As we want to have such an event regularly, we might have some registered form in the future, but we are not formal in any way so far. We hope to route things that requires official status via the White Crane Arts & Media Trust for now (Dharamshala International Film Festival). If necessary, we can have the full event based under the White Crane Trust. (Hackers tend to find the easiest solution based on existing systems ;))

6.2: Partners
Connections exists e.g to the Centre for Internet and Society in Bangalore and the Programme on Information Society and Technology of the Center for the Study of Developing Societies in Delhi, both registered non-profits. Tibetan Children's Village in Dharamsala and MIT Media Lab in Boston and India are also part of this effort, as well as other local and regional organisations. Also there are some companies; those are not listed on the website, as we try to stay free from any "commercial" interests. Those connections solely exists via the owners volunteering within the group of the hillhackers. More: hillhacks.in/partners.

6.3: Commitment
We are independent volunteers, but committed. We've already secured various tools and many laptop computers for the hands-on workshops and in particular childrens' workshops. Even without any funding there will be a lot things happening, as we already spend those tools, time, experience and knowledge: Servers, services, tools and infrastructure are provided by various persons around the world; soldering irons, lasercutter and other tools got donated and shipped from China; we got an open offer for covering one venue for the core time; another open offer is a smaller venue to conduct one of the week-long workshops.

6.4: Some more background
Akiba is a founder of Tokyo's Hackerspace and just recently created a hackerfarm outside of Tokyo. He is a wireless expert and deeply involved with open source hardware. He is also a researcher at Keio University Internet Research Lab, research affiliate at MIT Media Lab, and design consultant to the UN.

Sva is actually from the humanities (including background in computer science as well as carpentry) and e.g. co-founded the Hackspace of CCC Munich in Germany, Hackspace Dharamshala in Rakkar and mentored some more.

Her special feature is sva's experience in organizing and conducting similar events: Part of the core team organising the Chaos Communication Congress (C3) of German Chaos Computer Club (CCC) the last years, and involved in the organization since 2007 (see events.ccc.de/congress, around 10.000 participants in 2013). She also led smaller German events such as the re-publica.de, as well as some in India in 2013 (mostly with support of the Centre for Internet and Society).

For the past 30 years, CCC has shown that it is possible to drive events without "paid workers", but plenty of people doing things they love. We want to dock onto this idea of everyone contributing, and just started doing so ourselves. As things are very different in India, our planning efforts aim to pay some travel and living expenses for speakers and volunteers, if they need it. We apply for different grants in parallel and hope to be able to achieve this.