

HOW TO START CONTRIBUTING TO KDE-EDU: PRACTICAL HINTS

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BANGALORE, 9 - 11 MARCH 2011



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ABOUT ME |

I discovered Linux by chance with a CD in a magazine and started contributing to KDE translations then made my way into programming using KDevelop. I noticed around the year 2000 that there were educational built on KDE which were quite popular such as KVocTrain, KStars and KTouch and from those we started the KDE-Edu project and the kdedu package was included in official KDE sources and released for the first time with KDE 3.0. I particularly enjoy the KDE community for the friendliness of its members, I always get help when I need it. I found that when I meet people in real life they are like I imagined them when we work over the internet.

A mum at home, I currently live in France near Toulouse with my husband who is a meteorological researcher and also uses Free Software and with our five children. Apart from contributing to KDE I like sport and music, preferably progressive metal.

I am particularly honored to come to this conference in Bangalore in India to talk about KDE and more specifically KDE-Edu. A big thank you to the organisers for the work they put in making this event a success. Thanks also to KDE eV for sponsoring my travel and hotel.

This paper is an extension of my talk: it will give you detailed information about the KDE-Edu community and KDE-Edu software. More importantly it will list all the possible ways you can contribute to it. I hope it will reach this goal!

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WHAT IS KDE-EDU

KDE is an international team working mainly with the Internet dedicated to providing free and open source software for computers. KDE-Edu is a sub team of KDE.

KDE means two things: the community which creates free software for end users and the software which is the technology created by the community. The same applies for KDE-Edu.

KDE software consists in

- the KDE Platform which are mainly libraries needed to run KDE applications. Additionally pillars such as Nepomuk, Solid, Akonadi and Phonon complete libraries.
- KDE Workspaces which are KDE Plasma Desktop, KDE Plasma Netbook and KDE Plasma Mobile.
- KDE applications which are applications based on the KDE Platform. Some can be single ones such as Okular, Amarok, Kdevelop,... and others are a suite of software fulfilling the same goal: Calligra which develops a free office suite is such a sub project of KDE. KDE-Edu which aims to build free educational software based on the KDE platform is also a subset of KDE with a specific role.

This first section presents you KDE-Edu as a community by retracing its first steps and analysing what it is now. An overview of KE-Edu software is then presented.

A COMMUNITY

The KDE-Edu project, both community and software, started ten years ago so now in 2011 is a very good time to reflect on how it was initiated and how it evolved during those 10 years!

HOW DID IT START

In KDE 2 some educational applications built on KDE libraries were well used and I found [a thread from the kde-core-devel list](#) in May 2001 where KTouch, which was developed in Sourceforge, asked if it could enter KDE official. This is where the idea of an official educational module started. [KTouch joined the kdenonbeta module](#) (which was the playground equivalent) on the 10th May 2001. Then I traced [my first emails to KDE](#) in July 2001 with the revival of a [KDE-Edu mailing list](#) which already existed but with no real life or purpose. The kdeedu module itself [was created by David Faure](#) in CVS in the 19th July 2001 and the same day [I got my CVS account](#). On the 23rd July 2001 I added KHangMan sources then KMessedWords joined at the end of the month. KTouch moved in on the 18th August 2001. The 23rd September 2001 I imported Klettres. KEduca (a program to generate tests) was added on 15th September . The 5th of October KVocTrain (which was to become Parley) was added. KStars joined on the 14th October 2001 as well as KLatin and KGeo on the 31st. [The first kdeedu release](#) happened with KDE 3.0 on the 3rd of April 2002 with already quite a lot of various applications in it.

From there the collection of KDE-Edu software did not cease to grow and the number of contributors to increase!

WHAT WE ARE NOW

Currently, for the KDE 4.6 release, there are 20 programs in KDE-Edu. They can be classified by age or by categories. Some target very young children and some target students as well as adults. We

also have reports of elderly people using our software to help their memory or other areas.

Our software is used all over the world. The KDE project has over 65 translation teams which ensure that the programs can be used in nearly every country. With KDE-Edu software, there is not only the program itself to translate but also the data, for example lists of words to play in KHangMan. You can contribute to this data addition for your own language or dialect (please see Stephanie Das Gupta talk about it to get more information).

We are around 30 people contributing to KDE-Edu, mostly doing development work in C++. We come from around ten different countries, like Germany, France, Brazil, USA, Italy, ... We try to meet in a meeting from time to time, first time was in December 2007 in Paris. Apart from this meeting, we ensure a presence at the annual KDE meeting called Akademy. Our communication channels during the year are mailing lists and IRC where we talk “as in real” and often solve immediate small problems. Sometimes we define IRC meetings where we try to follow an agenda in order to solve a global problem. The internet is the vector of our communication and the way the KDE project as a whole exists.

As in KDE there is no leader in KDE-Edu. There is no hierarchical structure and no global plan with tasks assigned based on rank. Developers communicate their intended tasks for the next release in the [Feature Plan](#). As for any other KDE module, there is a coordinator (which is myself) and the coordinator ensures the kdeedu module always builds, she is a bridge with the Release Team and with the overall KDE. As in KDE, decision often follows the principle of “who does the work has the saying”. When someone requests for his software to join KDE-Edu, we try to reach an agreement on the mailing list, sometimes asking for the help of other KDE people. Respect of other contributors is of course a required value and prestige is gained by contributions.

Most of KDE-Edu developers are either students using the software, teachers or parents. Ages vary from young adults to me! They all believe strongly in freedom and free access to digital education tools and that motivates their contribution.

SOFTWARE

The [KDE-Edu project](#) is a unique suite of free tools aimed to help people learn by themselves. Based on KDE, this software targets young children starting at around three years old up to grown-up adults. It is universal: it is translated in more than 65 languages and anyone can add his own translation. As the software is used all over the world, it has to be as generic as possible. It is not always possible but it is what we we want to do: for it to be used in any language and any culture.

We use open formats for all our data and try to use existing formats whenever possible. When we develop our own format such as KVTML for vocabulary files, we try to use this format in several applications (Parley, KAnagram and KHangMan).

Like all of KDE software, KDE-Edu applications are always moving forward and we are also exploring new areas as they emerge within KDE . Currently some new directions are explored: make more use of plasma (plasmoids for applications, there are some, there could be more) and work in progress on an educational desktop. Using QML technology also would be nice. For these new areas, there are no precise tasks issued yet and if you want to participate, the best is first to document yourself about it and then try to make some suggestions or contact the mailing-list.

Some work also started to see how applications can be ported to mobile devices: this is work in progress but highly promising!

There is also a [KDE-Science](#) effort to list outside KDE official programs which target students and where you can find an interesting program to contribute to!

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MENTORED WAYS OF CONTRIBUTING

There are a number of schemes you can apply to in order to contribute to KDE for a short while with a mentor. See Lydia if you need more details and talk to her during this conference!

GOOGLE SUMMER OF CODE

This is aimed to 18+ students to help them contribute with code to an Open Source Project during three months. This will allow them to get immersed in a real life project and will provide the project with features. Please see <http://www.google-melange.com/> for Google information, <http://community.kde.org/GSoC> for general information and <http://community.kde.org/GSoC/2011/Ideas> for the proposals from KDE for next Summer of Code.

The specific proposals for KDE-Edu are listed on the http://community.kde.org/GSoC/2011/Ideas#KDE_Edu page.

You can also propose your own idea but you need to find a mentor for it.

Information: IRC #kde-soc on Freenode

SEASON OF KDE

Unlike Google Summer of Code, it offers no money reward. It allows students not accepted in GSoC to contribute with a mentor's help, look at [Planet KDE](#) to be informed about the 2011 season.

GOOGLE CODE-IN

This new scheme started in winter 2010: the aim is to help young (pre-university) students to get involved in Open Source projects. Projects offer light tasks that are rated easy, medium or difficult and a number of hours is assigned to do the task. Young students aged from 13 to 18 apply for a task and should finish it in the required time. Tasks can be translation, documentation, making videos or easy code.

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PROPOSED

PRACTICAL TASKS

If you do not need a mentor or if you cannot apply in one of the above categories, you can pick an open task in the list below. When you are sure you will work on the task then please put your name in the “Applicant” field in order to indicate the task is already worked on.

Although programming is important, we also seek contributions in other areas such as promotion (last year we started a promotion effort that would need to be emphasised), graphical artwork, documentation, work on the website, ...

DEVELOPMENT TASKS

All development oriented tasks are listed here:
<http://community.kde.org/KDEEdu/DevelopmentTasks>

- [KmPlot](#) needs bug fixing
- Make a lib or a separate program from [Kanagram](#) editor in order to use it as well in [KHangMan](#)
- Plasma task: merge the [Qalculate](#) applet and the [Kalgebra](#) one
- Both Plasma and KDE-Edu, the Educational Desktop: proposed as GSoC. But has no mentor yet. See <http://techbase.kde.org/Projects/Plasma/Education> for brainstorming ideas and

http://community.kde.org/GSoC/2011/Ideas#Project:_Educational_desktop for the GSoC proposal.

- Develop an application in another language than C++: help promote other programming languages by developing an educational program in a KDE binding language.
- Look at QML declarative scripting from Qt and see if you can port some KDE-Edu software to it. That would need maybe a list on what would be possible and then share the work over the wiki.
- Explore Gluon: we have a new developer who wants to start a framework for kids activities. This new developer has the ideas and the design but lacks the expertise to develop a program using KDE. Gluon seems a good candidate for it. Contact us and play with it if you feel a pioneer!

PROMOTION

The current promo tasks that we propose are listed here: <http://community.kde.org/KDEEdu/PromotionTasks>

- Make a png from a svg for a **t-shirt**
- **Work with distributions:** there are several known distribution which are developed to be used in schools such as SkoleLinux, Edubuntu, some Spanish ones, ... and other distributions have an educational group and focus such as OpenSuse Education. We would need someone dedicated to stay in touch with them by email and try to establish a way of getting input from each other.
- **Social networks:** look at KDE-Edu related blogs and news and new features and promote them through Facebook, Twitter, Identi.ca
- Work on the **flyer** and see if it can be improved and translated.

We also have the need for someone managing different community tasks such as helping prepare the annual meeting, putting together a wiki page from an idea we debated in the mailing list, and so. Someone who would initiate some processes and help in others.

Contact Lydia while she is there at the conference for promo help and ideas!

GRAPHICAL TASKS

The proposed graphical tasks are listed here: <http://community.kde.org/KDEEdu/ArtistTasks>

- Step and Rocs do not have an Oxygen application icon. To take this task, you should first get familiar with the program and try to define a concept which could be turned into an icon: the source is SVG and then it is converted to various sizes in png. When you have a concept or a few ones, talk with the developer to see if he agrees. Requirements: graphical knowledge of vectorial drawing, read about Oxygen palette. You can also subscribe to the KDE artists mailing list.
- Some applications lack icons for actions, we need a list of them then to draw them.
- Backgrounds can be added and defaults changed for the next release for some applications using themes or backgrounds such as Parley, KLetres, KHangMan, Kanagram. See with KDE Games how to set a common default look.

DOCUMENTATION

See my talk about documentation.

- Improve the user manuals (written in docbook but you can submit texts to the KDE documentation team). You need to know the application quite well in order to update the manual.
- Improve [Userbase](#): add tips about your favorite KDE-Edu application, look if the screenshots are up-to-date,...
- Write tooltips and QWhatsThis in your favorite program dialogs in order to help understanding them better.

WEBSITE

- See [Matthias Meßmer](#) to get specific tasks related to the website. You can first read about KDE website framework called [Capacity](#) and [how to set up your web development environment](#).
- Open a page with presentations about KDE-Edu

KDE AND KDE-EDU ON WINDOWS

Windows is huge potential user base and KDE is being ported to it. However the team needs more people.

KDE on Windows is still a work in progress, some areas do not work. The user needs to download an installer which will install pre-compiled packages and all the dependencies. The installation is detailed [here](#). However there is more testing to do and help porting some areas. You can volunteer on [the KDE-Windows mailing list](#) or by joining the #kde-windows IRC channel on the Freenode network.

CONTRIBUTE TO YOUR OWN LANGUAGE

You can help translating KDE to your own language: either there is already a translation team for your language and you can join it (see the list of current supported languages) or you can create it.

There are several areas within translation:

- GUI translation: all the strings that appear on the applications need to be translated such as menus, dialog strings, ...
- documentation: each application has a User Manual which is translated, screenshots are done in your own language to be included

- KDE-Edu provides some data for some applications such as Kanagram, KHangMan, Klettres, ... and those needs to be translated. See Stephanie Da Guptas talk about this!
- the KDE wikis [UserBase](#) and [TechBase](#) can also be translated. For UserBase you can get [a translation account](#) and then follow these [general instructions](#) on how to contribute and more specifically [this tutorial](#) to translate an existing page.

Contact the KDE l10n (l10n as localization which has 10 letters between l and n) [mailing list](#) if you want to start your own language translation team for the KDE applications. You can find the list of existing teams [here](#) as well as contact for joining them.

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CONCLUSION

In all the tasks mentioned you need to find the one that suits you the best. Here are some tips to help you make your mind.

TIME

Some tasks require little time and little commitment such as translating the wikis: you can do that from time to time, giving one hour or so casually when you can. Other tasks imply a more serious commitment. Translating a documentation means that you need to have finished for each release, usually you are maintaining it as you would for an application. Maintaining an application involves triaging and fixing bugs for it, adding new features, communicating with the KDE-Edu team, ... hence it is a long-term commitment.

PREREQUISITES

You have to assess your skills in order to see if you are up to the task you choose. Peer help is very strong in a community such as KDE so it is something you can rely on. Even if you are unsure of being able to achieve the task, what you need is to find the appropriate ways of communicating with the KDE-Edu project and KDE in general.

MOTIVATION

Depending on the task you choose you will have to commit yourself to it and if the task requires a great involvement it is better to feel a strong motivation for KDE values. For a first contribution, do

not seek something too demanding. Most well known KDE developers started with small patches and got hungrier after that! You need to subscribe to free software values and to feel a strong interest for the area you want to contribute to. In some cases, you will need specialised skills for example to develop an application in mathematics or astronomy.

HURDLES

There will be some hurdles to overcome at the beginning. As for contributing to any group in real life, you first need to learn a few basics which can make the first contribution a hurdle race! Depending on what areas you will start, the hurdles to jump might be different. For development, setting up a development environment is one of the first hurdle. Fortunately, this is all covered in this conference!

COMMUNICATION

We have several communication channels:

- the KDE-Edu mailing list : for everything related to KDE-Edu, from users questions to development ones. Subscribe [here](#) and read archives [here](#).
- IRC: channel #kde-edu on Freenode
- We communicate to the external world using blogs aggregated on [Planet KDE](#).

I hope this will make you contribute to KDE and KDE-Edu and I am looking forward to congratulating you for your first involvement!