Debian and Ubuntu

Lucas Nussbaum
`lucas@{debian.org,ubuntu.com}`

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- ▸ Friends in both communities

What's in this talk ?

- ▶ Ubuntu development process, and how it relates to Debian

- ▶ Discussion of the current state of affairs

- ▶ "OK, what should we do now ?"

The Ubuntu Development Process

Linux distributions 101

- Take software developed by upstream projects
  Linux, X.org, GNOME, KDE, ...

- **Put it all nicely together**
  - Standardization / Integration
  - Quality Assurance
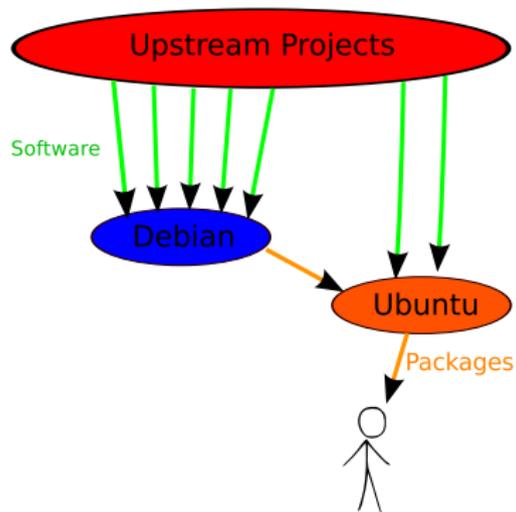 - Support

- Get all the fame

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Ubuntu has one special upstream : Debian

Ubuntu's upstreams
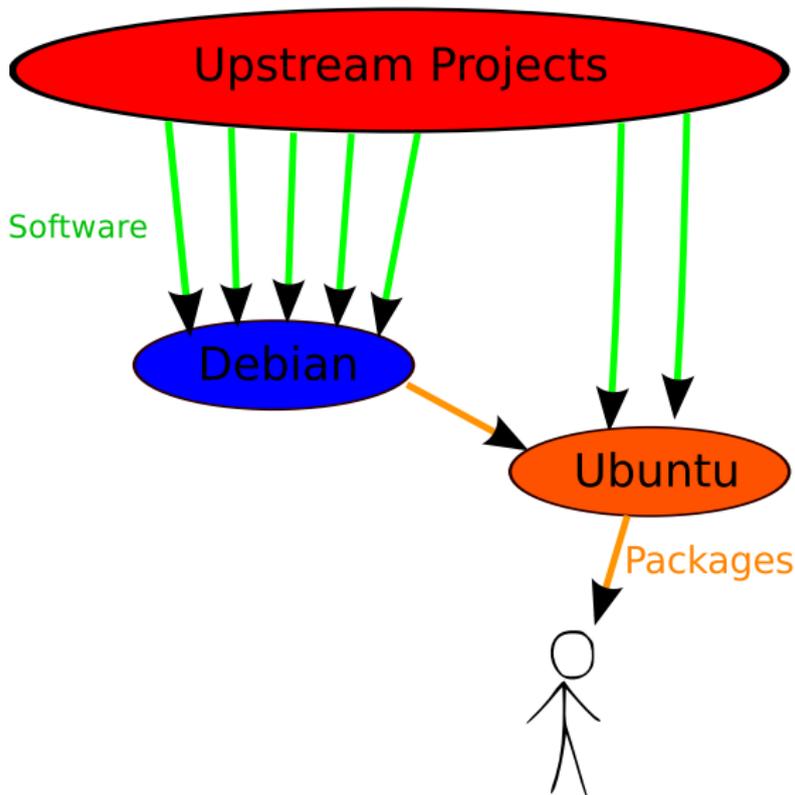
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Not that simple :
changes required, sometimes

- ▶ Toolchain changes
- ▶ Bugfixes
- ▶ Integration (Launchpad)
- ▶ Newer releases

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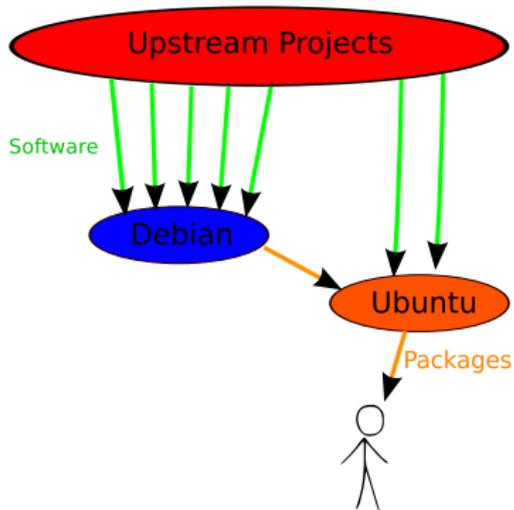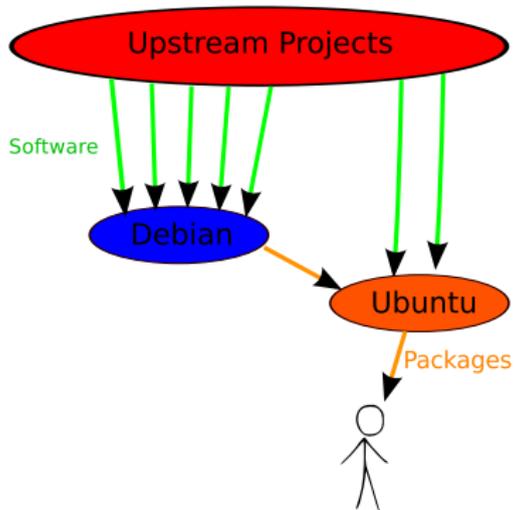**Often not possible to do work in Debian first**

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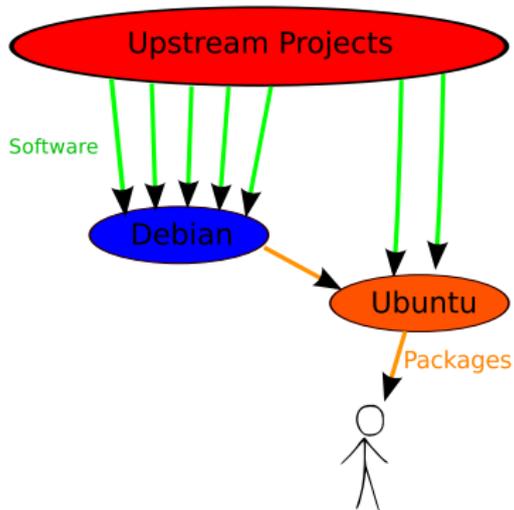different agendas (freezes),

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different agendas (freezes),
different focus (quality vs having stuff done)

Ubuntu Packages Workflow
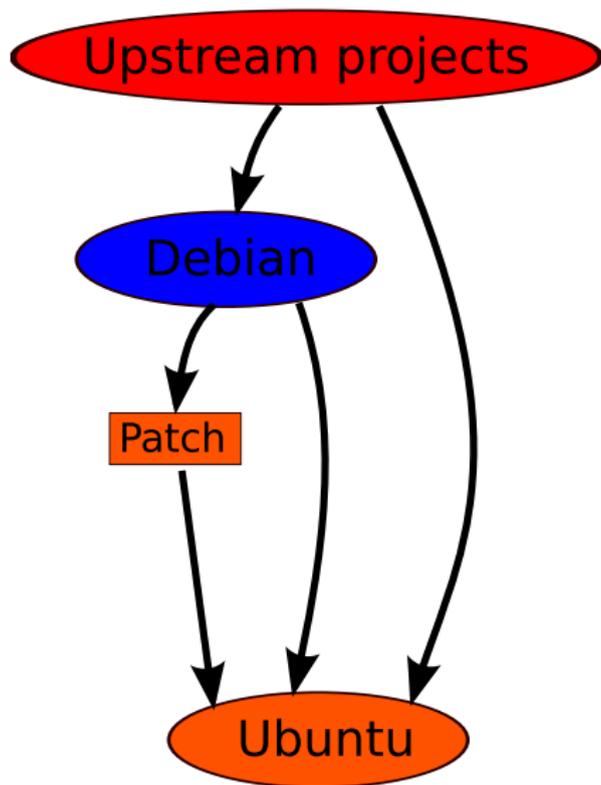
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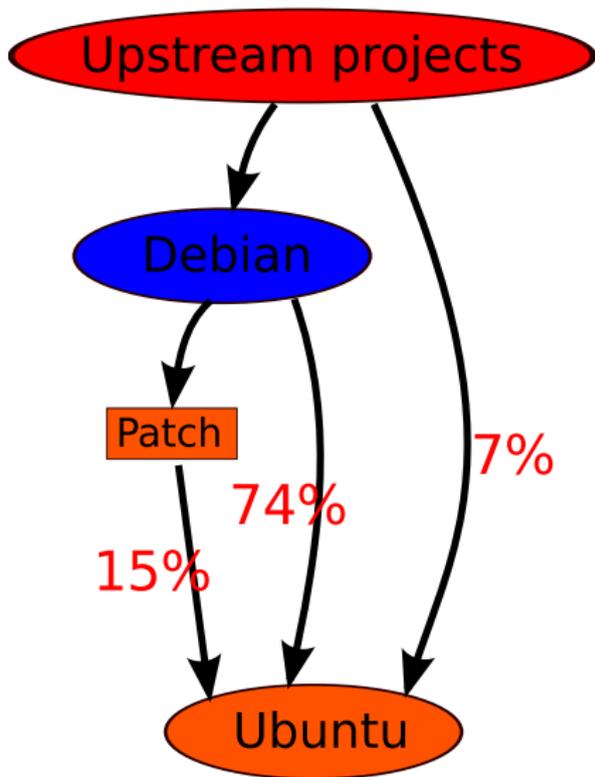
- ▶ Ubuntu Lucid

- ▶ Excluding specific packages

  language-(support—pack)-*, kde-l10n-*, *ubuntu*, *launchpad*

- ▶ Missing 4% :
  Newer upstream releases :
  Based on the Debian version or
  fully repackaged ?

Newer upstream releases (main)

akonadi alacarte alsa-driver alsa-lib alsa-plugins alsa-utils amarok anthy aptdaemon arora at-spi atk1.0 attica axis2c bluez bogofilter brasero byobu cheese choqok clutter-1.0 clutter-gtk-0.10 compiz compiz-fusion-bcop compiz-fusion-plugins-main compizconfig-backend-gconf computer-janitor corosync desktop-file-utils desktopcouch devhelp digikam ecryptfs-utils eglibc eigen2 empathy enchant eog espeak euca2ools eucalyptus evince evolution evolution-data-server evolution-exchange file-roller foo2zjs foomatic-db foomatic-db-engine foomatic-filters freeglut freespacenotifier gcalctool gconf gconf-editor gdm gedit gegl geronimo-ejb-3.0-spec geronimo-interceptor-3.0-spec geronimo-jacc-1.1-spec geronimo-jms-1.1-spec geronimo-jpa-3.0-spec gfxboot ghostscript glade-3 glib2.0 gnome-applets gnome-bluetooth gnome-desktop gnome-doc-utils gnome-games gnome-keyring gnome-mag gnome-media gnome-menus gnome-nettool gnome-orca gnome-panel gnome-pilot gnome-power-manager gnome-python-desktop gnome-screensaver gnome-session gnome-settings-daemon gnome-system-tools gnome-terminal gnome-themes gnome-user-share gnome-utils goocanvas gtk+2.0 gtk-doc gtk2-engines gtk2-engines-murrine gtkhtml3.14 gtksourceview2 gucharmap gutenprint gvfs gwibber gwt hal indicator-applet indicator-messages intel-gpu-tools intltool json-glib k3b kde4libs kdeaccessibility kdeadmin kdeartwork kdebase kdebase-runtime kdebase-workspace kdebindings kdeedu kdegames kdegraphics kdemultimedia kdenetwork kdepim kdepim-runtime kdepimlibs kdeplasma-addons kdesdk kdesudo kdetoys kdeutils kdewebdev kipi-plugins konq-plugins ldm lensfun libbonobo libbonoboui libcompizconfig libdbusmenu libdbusmenu-qt libgnome libgnome-keyring libgnomecanvas libgnomekbd libgphoto2 libgpod libgtop2 libgweather libindicate libindicator libjibx-java libmail-dkim-perl libmsn libnova liboobs libpam-radius-auth libpst librsvg libsoup2.4 libwnck libxklavier lirc llvm lsb ltsp ltspfs makedumpfile maximus metacity modemmanager mouseemu mousetweaks mvel nautilus nautilus-sendto net-snmp network-manager network-manager-applet network-manager-pptp notify-osd nspr nss nvidia-settings obexd open-iscsi openais openjdk-6 openldap opie oxygen-icons pango1.0 papyon pitivi plasma-widget-networkmanagement pnm2ppa poppler portaudio19 powertop ppp pulseaudio pygobject pygoocanvas pygtk pygtksourceview python-bsddb3 python-configglue python-cups python-defaults python-oauth python-qt4 python-stdlib-extensions python3-defaults python3.1 qemu-kvm qscintilla2 qt4-x11 quassel radeontool rampart rhythmbox sabayon schroedinger seabios seahorse seahorse-plugins silo simple-scan sip4-qt3 soprano speech-dispatcher strigi system-config-cluster system-config-printer system-tools-backends taglib telepathy-gabble tomboy totem totem-pl-parser transmission ttf-manchufont ufw util-linux vala valgrind vinagre vino virtuoso-opensource vte window-picker-applet wss4j xdg-user-dirs xf86-input-wacom xserver-xorg-video-nouveau yelp zenity

Newer upstream releases (universe)

alexandria alsa-tools amsn anjuta apt-mirror aptoncd aqsis aqualung arista assogiate asterisk atomicparsley avant-window-navigator awn-extras-applets basket bcfg2 binutils-z80 bitmeter bubblemon bug-buddy bygfoot bzr-explorer cairo-dock calf calibre ccbuild chef chromium-browser clang cobertura coderay compiz-fusion-plugins-extra compizconfig-backend-kconfig compizconfig-python connman cssutils ctemplate dahdi-tools deja-dup deskbar-applet dkim-milter duplicity earcandy ecm emacs22 emesene emu8051 enigmail enna evolution-mapi exaile ffprobe file-browser-applet foolscap freej frei0r gajim gcc-snapshot gcompris gedit-plugins gentoo geordi geronimo-activation-1.1-spec glew glfer gnash gnome-color-manager gnome-commander gnome-games-extra-data gnome-launch-box gok goocanvasmm gourmet gthumb gtk-nodoka-engine gtklick gtkparasite gtranslator gui-ufw gyp hamster-applet hildon-desktop ipwatchd ipwatchd-gnotify ircp-tray isdnutils italc jedit kannel kdenlive kdesvn kdevplatform kflickr kile kio-gopher klick kmess kmldonkey kmobiletools kmymoney2 koffice koffice-l10n kradio kraft kwave kwin-style-crystal lash lcdproc ldb ldtp libamazon-sqs-simple-perl libass libcddb libcgroup libdesktop-agnostic libfm libgdamm4.0 libhdhomerun libopengl-ruby libosso libsmbios libspnav libticables libticonv libtifiles llvm-gcc-4.2 lmms lxde-icon-theme lxpanel lxsession lxsession-edit lxterminal magyarispell mednafen menu-cache merb mingw32-runtime minitube miro mistelix mkvtoolnix monajat moodle moon mpg123 msn-pecan muse musescore music-applet mypasswordsafe nautilus-actions nautilus-cd-burner network-manager-openconnect network-manager-openvpn network-manager-vpnc nfs4-acl-tools ntrack ocempgui oftc-hybrid onscripter opendkim openrpg pgpool2 phpbb3 phpsysinfo picard plasma-widget-smooth-tasks plotutils popfile portmidi posterazor prismstumbler pstoedit purple-plugin-pack pygame pyliblo pyneighborhood pyopengl python-gasp python-gdata python-gudev python-musicbrainz2 python-pcs pyzor qbzr qjackctl qwit rekonq rosegarden rutilt sakura scanssh screenie-qt skrooge source-highlight spacenavd specto spim springlobby sssd stellarium sugar-connect-activity sugar-jigsawpuzzle-activity sugar-memorize-activity sugar-terminal-activity swac-explore swac-get tap-plugins terminator thunar-media-tags-plugin tilp2 tolua++ trash-cli tumgreyspf twitux typespeed uuagc valknut webkitkde wxwidgets2.8 xca xmlbeans zope.traversing zyn

Still newer in Ubuntu Lucid

Compared to Squeeze from a few days ago

Main :

amarok compiz desktop-file-utils foo2zjs gdm ghostscript glade-3 gnome-desktop gnome-keyring gnome-panel gtk2-engines-murrine gtkhtml3.14 gwibber intel-gpu-tools libgphoto2 libnova libpam-radius-auth libpst libwnck lirc llvm lsb mouseemu nautilus notify-osd opie plasma-widget-networkmanagement pnm2ppa portaudio19 powertop pulseaudio python-cups schroedinger ufw valgrind window-picker-applet xf86-input-wacom

Universe :

alexandria basket bzr-explorer ccbuild dkim-milter exaile ffprobe foolscap gentoo glfer gnome-launch-box goocanvasmm gtk-nodoka-engine gui-ufw isdnutils italc kflickr kio-gopher kmldonkey kmobiletools kradio kwave lcdproc libsmbios libticables libtifiles llvm-gcc-4.2 lxde-icon-theme lxsession-edit magyarispell mingw32-runtime mkvtoolnix msn-pecan muse network-manager-openconnect ocempgui opendkim openrpg pgpool2 phpsysinfo picard plotutils popfile portmidi prismstumbler pygame python-musicbrainz2 python-pcs rutilt scanssh specto swac-explore swac-get tap-plugins thunar-media-tags-plugin tilp2 tolua++ valknut zope.traversing

Managing the divergence

Keeping local changes in Ubuntu :

- ► Requires a lot of manpower
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3 channels to push changes to Debian :
- ▶ Bug reports
- ▶ Direct interactions within teams / with maintainers
- ▶ Patch available in Packages Tracking System and DDPO

Ubuntu box on the PTS

Overview of nmap source package

Go: _____
Switch style: Default

General information

Latest version: 4.68-1
Maintainer: LaMont Jones ✉
Conforms to: 3.7.2.2
Priority: extra
Section: net
VCS : Git (browse)

Available versions (more...)

Oldstable : 4.11-1
Stable : 4.62-1
Testing : 4.68-1
Unstable: 4.68-1

Source package

Files : .dsc .orig .diff

Binary packages

nmap (27 bugs: 0, 12, 9, 6)

Todo

Lintian reports 8 warnings about this package. You should make this package *lintian clean* getting rid of them.

mentors.debian.net has version 4.76-1 of this package, you should consider sponsoring its upload.

The package should be updated to follow the last version of Debian Policy (Standards-Version 3.8.2 instead of 3.7.2.2).

The BTS contains patches fixing 1 bug, consider including or untagging them.

Latest news [RSS]

[2009-02-16] nmap 4.68-1 MIGRATED to testing (Britney)

[2008-08-01] Accepted 4.68-1 in unstable (low) (LaMont Jones)

[2008-06-27] nmap 4.62-1 MIGRATED to testing (Britney)

[2008-06-14] Accepted 4.62-1 in unstable (low) (LaMont Jones)

[2008-04-25] nmap 4.53-3 MIGRATED to testing (Britney)

[2008-04-04] Accepted 4.53-3 in unstable (low) (LaMont Jones)

Bugs count

All bugs (graph): 29 (32)
RC bugs : 0
I&N bugs : 13 (14)
M&W bugs : 12
F&P bugs : 4 (6)

PTS subscription

Subscribers count: 5

Subscribe
your email   Send

Other links

Changelog / Copyright
Buildd: logs, more, exp, ports
Lintian report (0, 8)
Popcon stats

Ubuntu ...

Version: 4.76-0ubuntu4
Patch for version 4.76-0ubuntu4
13 open bugs

Improvements to packages are not the only thing to take back...

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Bugs
(and Bug Reports)

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- ► File bug in Debian $\rightarrow$ quite likely to get flamed

- ► File bug in Launchpad $\rightarrow$ very likely to get ignored
  - ► Many users $\rightarrow$ many bug reports
  - ► Not enough Ubuntu developers for bug triaging and squashing
  - ► Lack of expertise for many packages

Why collaborate on bugs ?

- ▶ Niche packages that rarely receive bugs reports in Debian

- ▶ More users of Ubuntu → more opportunities to run into bugs

- ▶ Slightly different environment in Ubuntu (newer toolchain, X)
  → we are likely to run into the same issues in Debian later

- ▶ Solving bugs = improving Free Software
  (That's what really matters, no ?)

Collaboration on bugs, today

- Some bugs get filed in Debian by Ubuntu developers
  - `origin-ubuntu` and `ubuntu-patch` usertags
  - 250-400 per Ubuntu release cycle
    Mostly upstreaming of Ubuntu patches to reduce divergence
- Ubuntu box on the PTS, but :
  - Data imported using a hack
  - Doesn't include private bugs
- Bugs email forwarded to PTS (opt-in)
  (see developer-reference for details)

State of the Debian - Ubuntu relationship

Disclaimer :
Based on my perception
(which I hope is quite fair)

Feelings on the Debian side, in the past

Historically : many DDs were unhappy about Ubuntu

- ▶ Feeling of being stolen

- ▶ Public claims of "giving back", difficult to back with reality

- ▶ Problems with some Canonical employees tend to reflect on Ubuntu as a whole

Feelings on the Debian side, now

Things have improved considerably

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- ▶ Serves as a technological playground
  dash as /bin/sh, boot improvements, debug packages, hardening GCC flags, . . .

Feelings on the Ubuntu side

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- ► Many Ubuntu developers contribute to Debian

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However :

- ▶ Often not a lot to contribute back (on the package level)
  - ▶ Many bugfixes are just workarounds
- ▶ Canonical is a company
  - ▶ Contributes back when it benefits them
  - ▶ Don't expect many free "gifts" to Debian

    Banner on ubuntu.com for Debian 15th birthday ; DebConf sponsorship

Ubuntu's consequences for Debian

- ▶ Debian user-base (or at least market share) decreased
  - ▶ Ubuntu won the desktop/laptop market
  - ▶ Slowly makes a place on the server

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Ubuntu's consequences for Debian

- Debian user-base (or at least market share) decreased
  - Ubuntu won the desktop/laptop market
  - Slowly makes a place on the server
  - **For many new Linux users, Linux = Ubuntu**

- Recent innovations usually happen in Ubuntu

- As a result, Debian becomes less relevant
  Even if Debian is now the basis of a major distribution

Problem : loss of relevance of Debian

Debian needs to be relevant

- ▶ Fights for important values
- ▶ Takes position on technical and political issues

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But collaborating with Ubuntu (and improving it) is
the right thing to do for Free Software world domination

**How do we make Debian relevant again
and still help Ubuntu ?**

Behave like a good Upstream

$\rightarrow$ **Improve collaboration with Ubuntu** :

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- ▶ Help Ubuntu maintain our packages
    - ▶ Notify them of important transitions
    - ▶ Bug triaging/fixing directly in Launchpad ?

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- ► Acknowledge that some high-quality work is done in Ubuntu
  - ► Import it into Debian, create collaboration around it
    (The packages import doesn't have to be one-way only !)

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Communicate on why Debian is better

Yes, Debian is better !

- ► OK, maybe not for everybody
- ► But we often fail at communicating that
- ► Let's try !

Debian is better.

Better values :

- ▶ Debian :
  - ▶ Volunteer-based project. Decisions taken in the open.
  - ▶ Advocates the Free Software philosophy since 1993

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- ► Debian :
  - ► Volunteer-based project. Decisions taken in the open.
  - ► Advocates the Free Software philosophy since 1993
- ► Ubuntu :
  - ► Project controlled by Canonical. Some decisions imposed.
    Ubuntu One, switch from Google to Yahoo ! to Google for search
  - ► Advocates proprietary web services (UbuntuOne)
  - ► Installer recommends to add proprietary software
  - ► Copyright assignment to contribute to Canonical projects

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Debian testing : the perfect distribution for your laptop ?
Recent software, few problems (but interesting/useful ones)

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Ubuntu is a chance for Debian :
We shoud leverage it to get back
in the center of the FLOSS ecosystem

- ► Work with Ubuntu (like a good upstream)
- ► Be vocal about Ubuntu problems (but be constructive)
  - ► Can also help improve Ubuntu (and Free Software)

Find our own ways to bring innovation
in the Free Software world (Debian rolling ?)