# Arabic/Persian Script with Debian GNU Linux

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http://www.by-star.net/PLPC/180010

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Varbatim Copying Permitted

## Some Frame Title

- This text only apears in the presentation form

# Part I

## Introduction

# Part I: Introduction

First, Let's Parse the Title
Scope And Purpose
Model
Philosophical and Moral Dimensions
Distribution and Support

Convivial Perso-Arabic Script with Debian GNU/Linux
Part of ByStar User Environment

## Convivial Perso-Arabic Script with Debian GNU/Linux.

- Convivial: Not in the American/English sense of the word. In its Globish sense as introduced by Ivan Illich in "Tools For Conviviality".
  Expressing the correct relationship between "Tool User", "Tool" and "Tool Maker".
  In this context, in Geek lingo: emacs and TeX.
- Perso-Arabic Script: Text processing in:
  - The Persian family of languages: (Farsi, Dari, Urdu, Pashto/Afghanic, Sindhi, Kashmiri, Uighuric)
  - The Arabic family of languages: (Arabic, Maghribi, Jawi/Old-Malay)
- Debian GNU/Linux: A paricular rev./generation (Squeeze/6.0) providing a stable and consistent libre platform.

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Convivial Perso-Arabic Script with Debian GNU/Linux
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## Part of ByStar User Environment.

- What is the ByStar Federation of Autonomous Libre Services?
- What is the ByStar User Environment?

First, Let's Parse the Title
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Goal and Direction
Non Goals

## Goal and Direction.

- To create a healthy, strong and complete environment for producing documents in Arabic/Persian script
- Totally open and CopyLeft
- An asset for humanity
- In harmony with Debian GNU/Linux
- Multi-Lingual Editing Capabilities – Persian/Farsi, Arabic, Chinese, Hendi, Latin
- Given Debian and a local repository (persian.bybinary.org), provide everything.
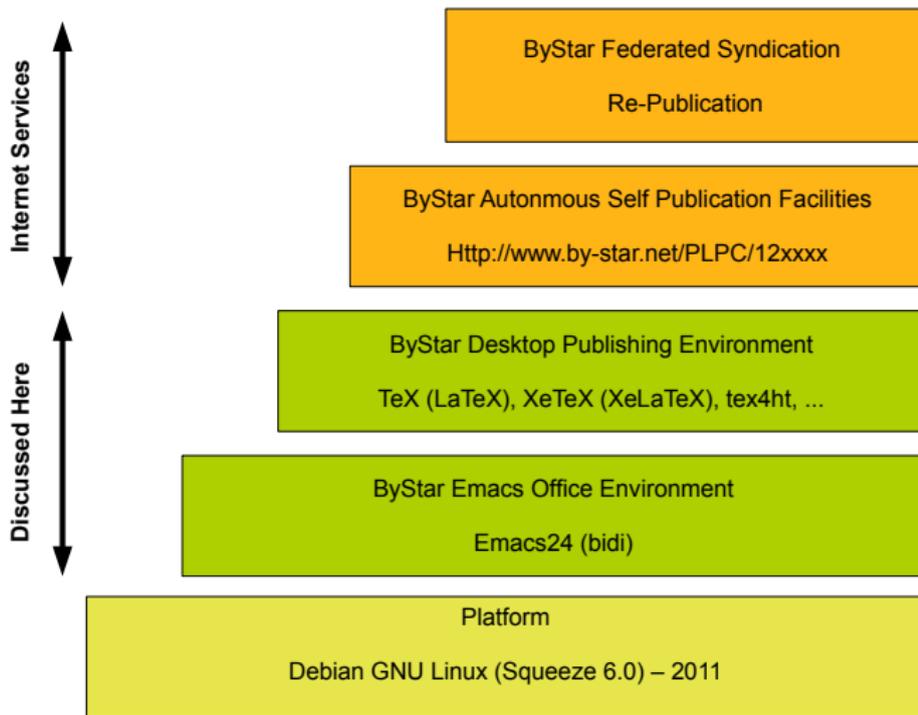- A pedagogical tool for language learning

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Goal and Direction
Non Goals

## Non Goals.

- Ease of Use
- Purity of Persian or Arabic input system

## Model.

- Platform (Debian)
- User Environment (Emacs24 with bidi, ByStar EOE)
- Desktop Publishing (XeLaTeX, XePersian, tex4ht)
- Autonomous Self Publication Facilities (ByStar)
- Federated Syndication – Re-Publishing

# End-To-End Solf Pubilcation Model

First, Let's Parse the Title
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Our Approach: The Convivial Quadrant
Libre/Propitary and Convivial/Industrial Software
Libre/Propitary and Convivial/Industrial Internet Services
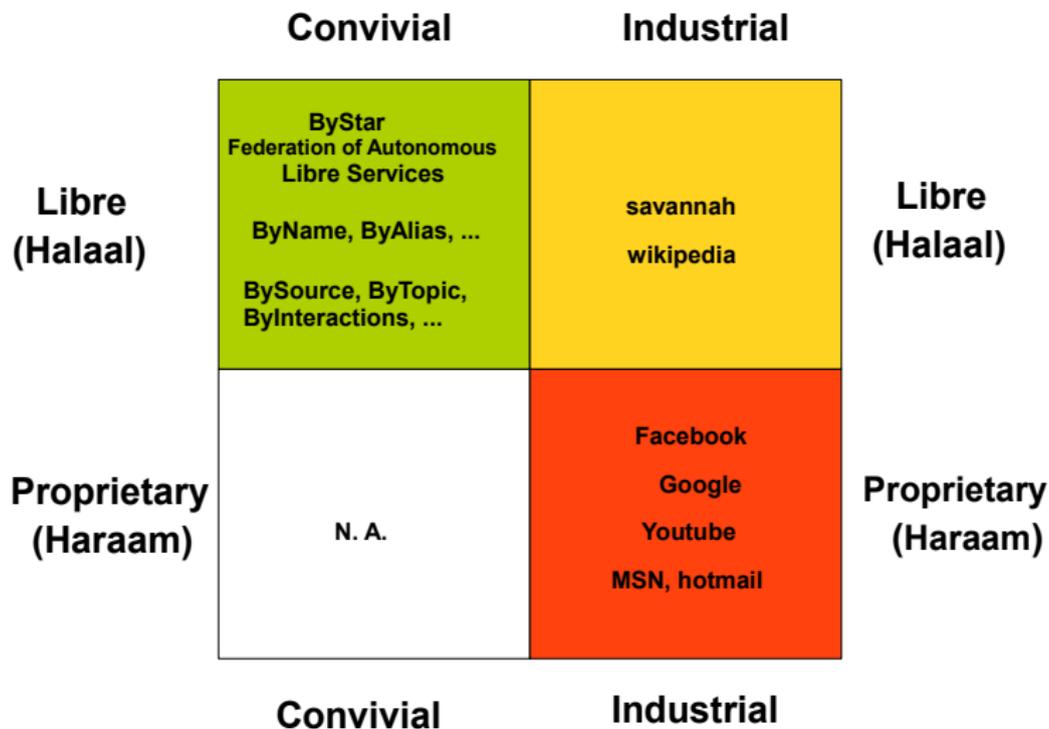Libre/Propitary and Convivial/Industrial Software-Service Continuu

# 3 Choices For Perso-Arabic Script Software.

1. Microsoft Word, ... – Proprietary and Industrial.
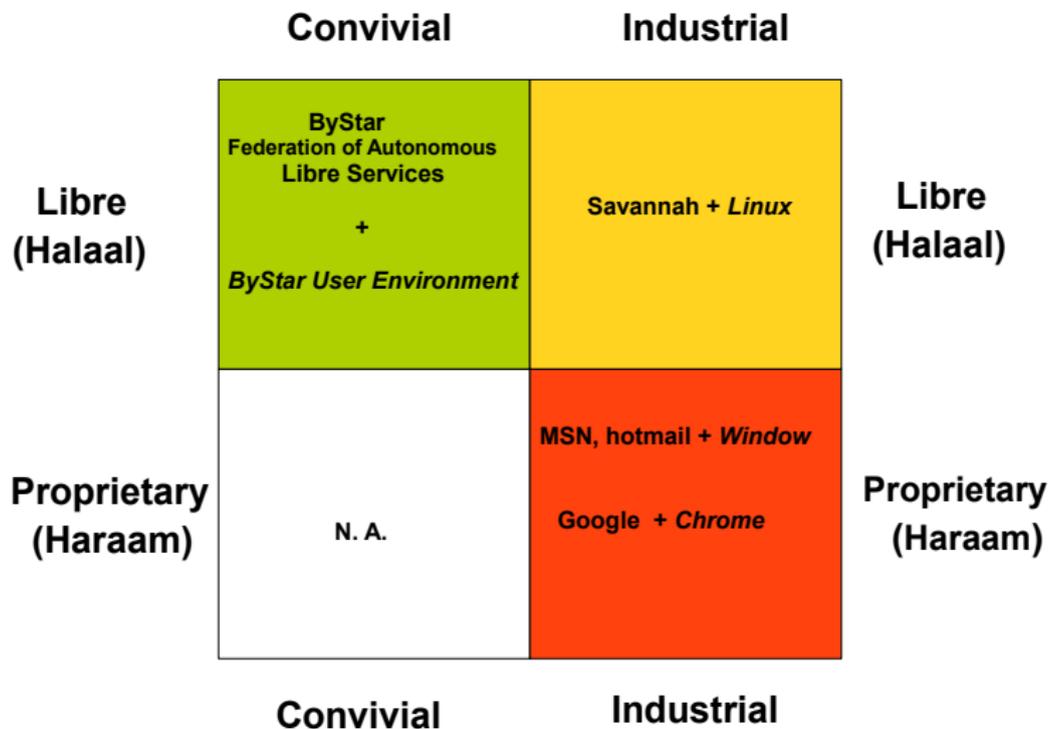2. Open Office Writer, ... – Libre but Industrial.
3. Emacs and XeTeX – Convivial.

# Libre/Proprietary and Convivial/Industrial Software Quadrants

|  | Convivial | Industrial |  |
|---|---|---|---|
| **Libre (Halaal)** | Debian GNU/Linux<br>Emacs<br>TeX<br>Beamer<br>Gnus | شـريف لينوكس<br>Vim, katoob, ..<br>Open office writer<br>Open office impress<br>Pine/alpine | **Libre (Halaal)** |
| **Proprietary (Haraam)** | N. A. | Microsoft Windows<br>Microsoft Office<br>Microsoft Word<br>Power Point<br>Outlook | **Proprietary (Haraam)** |
|  | Convivial | Industrial |  |

## Distribution and Support.

- Part of ByStar User Environment. Recommended.
- A La Carte. Here is the information. You are on your own.

# Part II

## Platform

## Part II: Platform

## Debian Squeeze (6.0) and Ubuntu 11.04.

- Debian Squeeze (6.0)
- Ubuntu 11.04

Nothing less will do beacuse bidi was missing in emacs and XePersian was not quite ready until 2010.

- ByStar User Environment

## Part III

## ByStar Emacs Perso-Arabic User Environment

# Part III: ByStar Emacs Persian/Arabic User Environment

What Is Emacs?
What Is ByStar?
Perso-Arabic Emacs User Environment

Emacs24 and bidi

## Emacs24 and bidi.

- emacs-snapshot is not part of Squeeze, get it from ...
- Persian fonts
- Persian input methods
- Arabic input methods
- Persian spell checkers

What Is Emacs?
What Is ByStar?
Perso-Arabic Emacs User Environment

ByStar User Environment

## ByStar User Environment.

- Point to relevant docs.

## Extra Fonts For Emacs.

- Persian: XB Zar, ...
- Arabic: Lateef, ...

What Is Emacs?
What Is ByStar?
Perso-Arabic Emacs User Environment

Extra Fonts for Emacs
Emacs Input Methods
Persian Transliteration
Multilingualization (M17n) of Spelling Dictionaries
M17n of Thesaruses
M17n of Dictionaries
Bidi and Emacs Packages Problems

## Emacs Input Methods.

- Native Keybaords: Arabic M-: (set-input-method 'arabic)
  (set-input-method 'farsi)
- Transliteration: Persian M-: (set-input-method 'farsi-translit)
- Predictive Phonetic Input (PPI): e.g., pinglish

## Persian Transliteration.

Generated with M-: (describe-input-method 'farsi-translit)

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# Multilingualization (M17n) for Spelling Dictionaries.

ispell/aspect used with multiple dictionaries.

- Persian/Farsi aspell dictionaries
- Arabic aspell dictionaries

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## M17n of Thesaruses.

dict protocol used with multiple thesaruses.

- Persian/Farsi thesaruses
- Arabic thesaruses

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## M17n of Dictionaries.

dict protocol used with multiple dictionaries.

- Persian/Farsi dictionaries
- Arabic dictionaries
- eng-arabic + arabic-eng
- eng-farsi + farsi-eng

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## Bidi and Major Emacs Packages.

- Gnus – Bugs: Summary buffer messed up
- Supercite:
- When bidi is on, arithmetic segments should remain left to right.
- m17n library: lengthened characters at the end of a word.

# Part IV

# Desktop Publishing

# Part IV: Desktop Publishing

## XePersian.

- XB Zar Fonts

# tex4ht.

- htxelatex is missing. Needs work.

# Part V

# ByStar Autonomous Self-Publication

# Part V: ByStar Autonomous Self-Publication

## lcntProc.sh.

- Point to relevant PLPC.

# Part VI

## Federated RePublication

# Part VI: ByStar Autonomous Self-Publication

## ByTopic.org.

- ByTopic.org.

# Part VII

## Some Examples

# Part VII: Some Examples

## Persian and English.

- Gharbzadegi
- This articleFa.tex and presentationFa.tex

## Enlglish and Persian.

- This articleEn.tex and presentationEn.tex

# Arabic with some English in it.

- TBD

# Part VIII

## Direction Statement and ToDO List

# Part VIII: Direction Statement and ToDO List

## Collaboration and Possible Next Steps.

- Get a ByName.net acct
- Install Debian Squeeze on your computer
- Install ByStar User Environment with matching ByName.net on your computer.
- Use the ByStar Perso-Arabic Script
- Report Bugs and suggest improvements
- Assist in completing this manual – particularly the Arabic parts

## ToDo List.

- XeLaTeX for tex4ht
- Persian Dictionaries – None found at this time
- Persian Thesaurus – None found at this time
- Pinglish for emacs
- eng-persian dictionary
- persian-eng dictionary

## Colophon

- Produced with Halaal Software and Halaal Internet Services.
- It uses LaTeX, beamer, ByStar, Blee, Emacs, ...