

15 years of free software at work  
- several kinds of relationship between users and developers

Antoine Gallavardin

a (brief) situation

Who and Where Am I

As introduction

A story of account and web access management

a simple maturity model

Genesis of the model

Components of the model

Details of transition

Transition 1

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Conclusion

# 15 years of free software at work - several kinds of relationship between users and developers

Antoine Gallavardin

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## Antoine Gallavardin

- Linux System Administrator
- Technical Officer of ID Management System at Irstea
- Technical Officer of web access management system at INRAE
- Responsible of Lyon's Linux User Group during 6 years
- Discover OpenSource since Debian 2.2 "Potato" (2000)



## The employer : CEMAGREF > IRSTEA > INRAE

It's a french research institute specialized in ecology and agriculture

- Renaming in 2012 (CEMAGREF > IRSTEA)
- Merge with INRA for giving INRAE
- number of accounts increase a lot ( 1200 to 15000) after merging

The logo for INRAE, consisting of the letters "INRAE" in a bold, teal, sans-serif font. The letter "A" is stylized with a circular element.

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# As introduction

A story of account and web access management

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## A classical problem

- Find a solution for managing user account and web access management
- Make it fonctionnal / scalable / adapted inside a research and educational context

## Dilemna

- Choose a solution and adapt all internal process to it ?
- Adapt the solution to our process ?

## We choose twice !

- We adapt our process : they was too old !
- We adapt the solution to our need .

## Which technical solution ?

- Account Management : FusionDirectory (maintain by FusionDirectory publisher)
- Access Management : LemonLDAP::NG (Maintain by Worteks publisher)

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# a simple maturity model

## Genesis of the model

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This simple maturity model could be applied for a project with a main publisher and was inspired by

All attitudes taken by myself while building the solution with several publishers :

Attitudes	FusionDirectory	LemonLDAP::NG	Sympa	Apache
As user	2009	2017	2006	2006
As bug reporter	2010	2020	2018	N/A
As co-forker	2011	N/A	N/A	N/A
As funder	2010	2021	N/A	N/A
As code writer	2010	2022	N/A	N/A
As "influencer"	2021	N/A	N/A	N/A

Other testimonials from open source actor

- French National Police (Gendarmerie) - about migration to opensource tools (in 2005)
- Governance of Sympa software (since 2020)



# a simple maturity model

## Components of the model

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### 7 elements

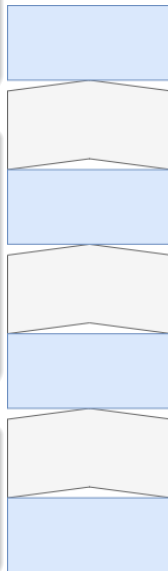
- 4 levels of contributor
- 3 transitions

### 4 level of contributor

- Level 1 : User : use the software
- Level 2 : Operational contributor : report bug / write code and documentation
- Level 3 : Project contributor : write "core" code / could be a co Forker (sometimes) / could be "co architect"
- Level 4 : Project Influencer : be a "Co governor"

### 3 transitions

- Transition 1 : User > Operational contributor
- Transition 2 : Operational contributor > Project contributor
- Transition 3 : Project contributor > Project Influencer



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# A kind of maturity Model

Transition 1 : User > Operational contributor

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## Success key

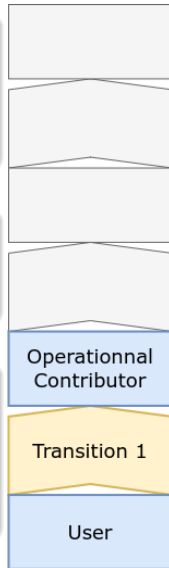
- Documentation should present and clear
- Bug report method should be clear
- Each user should be welcomed as a VIU (Very Important User)

## Point of attention

- Too much documentation make too noise
- User need time to understand project organisation (tools and persons)

## Illustration

- FusionDirectory and LemonLDAP::NG are complex software that require good basic knowledge. The documentation does not explain the basic concepts
- Bugs can be difficult to describe



# a simple maturity model

Transition 2 : Operational contributor > Project contributor

## Success key

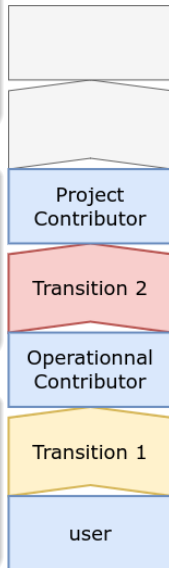
- The contributor is listened to because he brings expertise
- Contributor must shown their interest for the project, not only for their own needs

## Point of attention

- Take care about conflict between contributor / project / publisher
- Each evolution must a benefit for everyone
- The "technical storm" : after the simple bugreport, the adventure of code contribution (let's play with git, docker / gitlab CI/CD ..)

## Illustration

- Fusiondirectory project : IRSTEA impact the target of FusionDirectory : Identity Management specialized in French NREN (SUPANN / SINAPS)
- LemonLDAP::NG project : INRAE wanted Worteks to improve the metadata loading for national and international SAML Federation.



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# a simple maturity model

Transition 3 : Project contributor > Project Influencer

## Success key

- Create a community (not only a simple user group)
- Remind to the publisher the need to be more accessible (tool to contribute, community visibility)

## Point of attention

- Diplomacy takes time because it must find a compromise between the interest of the community and that of the publisher

## Illustration

FusionDirectory project :

- Improve contribution to fusiondirectory: plugin-manager.
- Improve community visibility: community.fusiondirectory.org website (soon), Organization of community days
- Governance: Remind the publisher that the software has other features: infrastructure management

Project Influencer

Transition 3

Project Contributor

Transition 2

Operational Contributor

Transition 1

user

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## Maturity model of LemonLDAP::NG and Fusion Directory and sympa and Apache as comparaison

This a synthesis of this simple maturity model for INRAE (for some software)

<b>Software</b>	<b>Description</b>	<b>level</b>	<b>Contribution</b>
FusionDirectory	Directory Management	level 4	usage /code / doc / Governance
LemonLDAP::NG	Web Single SignOn	level 2.5	code / bugreport
Sympa	Mailling liste manager	level 2	bugreport
Apache	Web service	level 1	state

## Evolution take time

- For from level 1 to 4, 15 years was necessary for the FusionDirectory project
- Dependant of needs of user

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## Some reflexions

- Yet another maturity model ?
  - OW2 : <https://www.ow2.org/view/MRL/Overview>
  - Other method : [https://en.wikipedia.org/wiki/OpenSource\\_Maturity\\_Model](https://en.wikipedia.org/wiki/OpenSource_Maturity_Model)
- Relation between community and publisher is underestimated !
  - Concern 1 item only (total of 40) for OW2 Model
  - Relation with community should be a criteria for determining health of a project .
- Illustrations
  - What would have been the future of LemonLDAP(::NG) if the national Gendarmerie wasn't involved?
  - Thanks the community, Fusiondirectory is becoming a reference in Identity management in French educational and reseach environment



# Many thanks and question

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## Many thanks

- OW2 for accepting my call !
- The audience to support my poor english expression

## Some questions ?

If you have some questions ! I'll try to answer !