The Algorithmic-Autoregulation essay
a collective and natural focus on self-transparency

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Abstract

There are numerous pursues for a lightweight and systematic account of what is done by a group and containing individuals. The Algorithmic-Autoregulation (AA) is a special case, in which a technical community embraced the challenge of registering their own dedication for sharing processes, self-transparency enhancements, and prove dedication. AA is used since June/2011 by dozens of FLOSS and social developers, with the support of different AA software gadgets and for distinct tasks. Intermittence and activity concentration of users activity follows expected natural properties. Social participation and ontological understandings of AA eases comparative analysis and furthers integration.

Resumo

Keywords: distributed development, FLOSS, social participation, OWL, statistics, anthropological physics

Contents

1 AA start

The Algorithmic Autoregulation (AA) is a self-transparency mechanism for sharing processes, proving dedication, and enhance personal or collective self-transparency. Purposes for AA usage are numerous: enable automated and fair compensation for dedications, ease co-working, introduce newcomers, keeping public historical logs of activities, etc. Indeed, other systems have been designed for such a task (see Section 1.1). A brief characterization of AA is:

- The collective origin, purpose and upkeep. This is a free-culture trait, present within many software, and leads to open software and data as described in Section 4.

- Voluntary logging of messages about ongoing work.

- Enables coordinating distributed team work through individual merit.

- More a practice than a software: AA presents variations on the software support and message composition. Often present features are screencasts, peer validation and periodic messaging.

Transparency in this context should be understood as usual organization or State transparency is: a public account of activities [1]; not directly as transparency in self-knowledge, as is the case in some philosophical and political contexts [2]. One should reach [3] for a noteworthy overview of AA as a Global Software Development (GSD).

1.1 Related work

Authors know of no *civil society transparency* platform. There is a number of transparency initiatives for governments [4], for religious parties [5] and for private institutions [6]. Data analysis methods are derived from Natural Language Processing (NLP) and Complex Networks (CN) fields, constituting a hybrid framework of classical [7, 8] and novel [9, 10] approaches.

1.2 Historical note

7th June, 2013, Cleodon Silva [11] died by heart failure. In his memory, the labMacambira.sf.net group was born (Pedro Macambira was one of this pseudonyms). The AA was conceived as the "cardiac pulse" of the group and is in constant usage since July, 2011. It gathers thousands of messages, tenths of users and hundreds of processes. AA messages present contributions, such as commits to official repositories of Evince, Firefox, OpenOffice, Puredata and other software [3]. A number of other activities were registered: new software elaboration and coding, writing of articles, Wikis and Etherpads; articulation of civil society, academic and state instances; studies and reviews. Even so, AA is highly biased towards software development, as can be observed in Sections 6 and 7, and in the GSD article about AA [3].

1.3 Essay structure

Section 3.5 describes AA uses incident and envisioned. Section **??** exposes different software written or used for AA. Section 5 is dedicated to data. Section 6 further develops statistics about AA in terms of vocabulary and networks. Section 7 states results and Section 8 a concludes with further works and acknowledgements. Tables and figures are inplace, kept as simple briefings and illustrations. External resources - mainly documents, data and scripts - are referenced for further inspection.

2 Design features

To understand use practices and software support (Sections 3 and 4), one needs to observe core design features of AA:

- Evenly spaced messages should be sent by the AA user. The time lapse is called a "slot" and the message a "shout". A slot might refer to the time lapse and the message, this is context dependent and will be pointed on text if ambiguity occurs.
- Shouts should report the task being tackled and/or a briefing of what was done in the slot.
- Shouts are grouped into "sessions". Each session is ideally linked with a short screencast by the user, with a few dozen seconds of explanation about the AA session.
- Each session is sent by email to a random AA user for validation.

Variants of this features were conceived and practiced. Figure 1 exposes a diagram shared and referenced by AA users in the first months of AA practice.
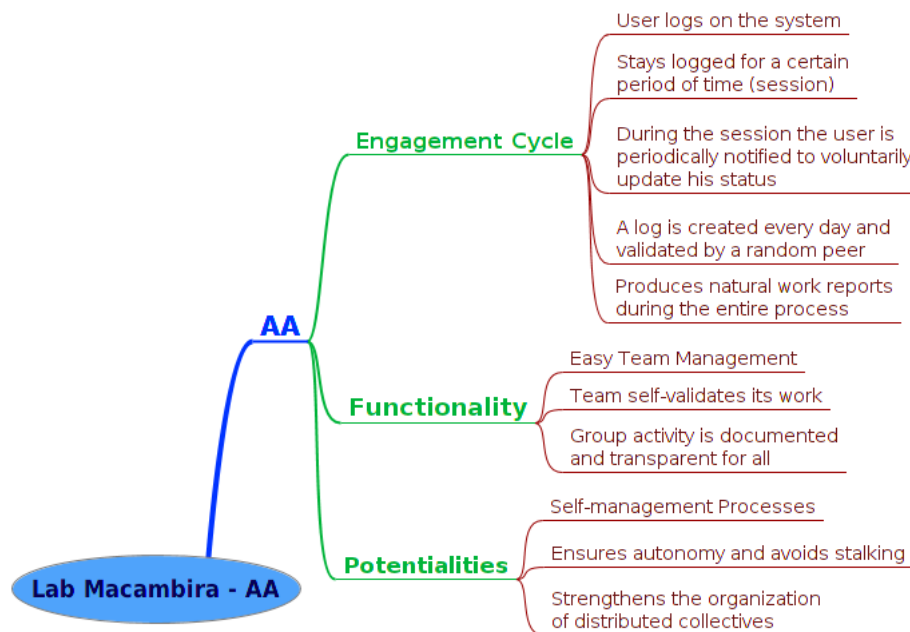
Figure 1: A mind map of the AA methodology shared by users: i) Engagement cycle – the usage of AA; ii) Functionality – the design goals of the system; iii) Potentialities – envisioned benefits of AA by authors of the diagram. As seen in Section 1, core benefits emanate from the self-transparency aspect of AA, with worthy mentions to proving dedications and sharing processes.

3 Use practices

Distinct use methods are incident (Section 3.5).

3.1 Words and tags

3.2 Shouts

3.3 Sessions

3.4 Developments

3.5 Suplimentary commands

4 Software support

There are different software support for AA (Section **??**). Also, This section exposes this diversity and their integration, as linked data, both within AA

variants and within participatory instances.

There are mainly three software pieces written to support AA activity. Two of them are a server and client suite each (see Sections 4.0.2 and 4.0.3). The third is a fancy dashboard. Automated conversational agents (software [ro]bots) were used as alternative User Interfaces (UIs), with a highlight for the Lalenia bot (see Section 4.0.4), and an initiative to make AA available in all chat networks (see Section 4.0.5).

All AA software apparatus is contextualized in Table 1.

4.0.1   First AA: HTTP server, HTML skin and shell client

Although deprecated in favor of AA 01, this first AA software presents the most numerous set of functionalities. Client functionalities are:

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Server functionalities are:

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Core HTML skin functionalities are:

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Further information of this and other versions of AA are contextualized in Table 1.

Table 1: All considered AA versions and their databases. References marked with † are not operational anymore.

version name	main language	user interface	database	git	available at

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