

MAZI means together: An open-source “minimal computing” local community network for cultural event organisation, fieldwork research and digital curatorial practices

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The emergence of Community Networks (CNs) and DIT (Do-It-Together) minimal computing ecosystems has resulted in technological solutions that enhance community connectivity and digital inclusion. The case is made for the cultural uses of local network infrastructures that combine wireless technology, low-cost hardware, and free/libre/open source software (FLOSS) applications. Based on these features, the toolkit MAZI (“together” in Greek), a Horizon 2020 project initiated by NITlab, University of Thessaly, Greece, has been deployed for creating pop-up local wi-fi zones independent from the internet, that enable digital interactions of communities within a low physical proximity coverage range (Davis, 2017; Gurstein, 2007).

MAZI provides technology and knowledge that aim to:

- a) empower those who are in physical proximity, to shape their hybrid urban space, together, according to the specificities of the respective local environment,
- b) generate location-based collective awareness as a basis for fostering social cohesion, conviviality, participation in decision-making processes, self-organization, knowledge sharing, and sustainable living, and
- c) facilitate interdisciplinary interactions around the design of hybrid space and the role of ICTs in society (CORDIS, 2018).

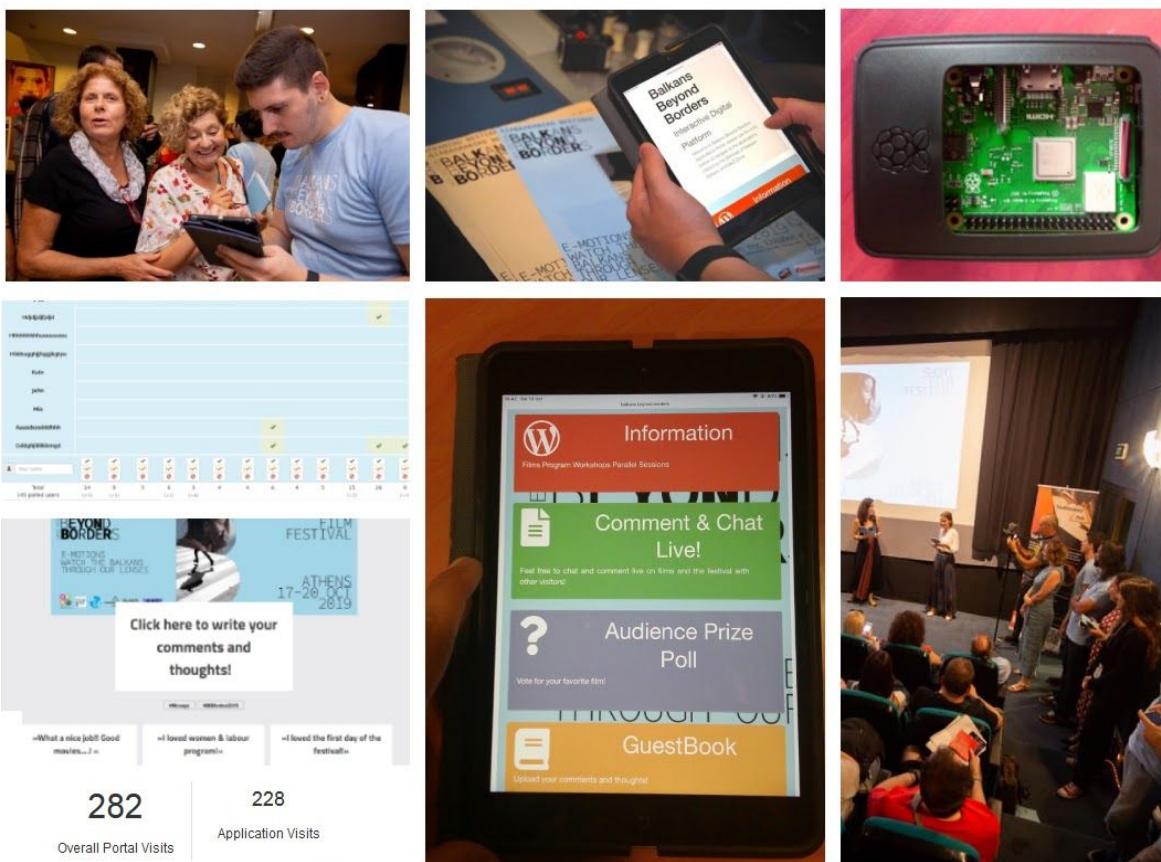
ICT-enabled local networking can be critically applied within the scope of humanities and the GLAM sector. CN’s can be directed to foster new participatory curatorial forms, transient -off the internet- community knowledge sharing and alternative experiences of the locality and commonality (Antoniadis, 2014; Dragona, 2015). Additionally, creating infrastructures and components that are “minimal” by eliminating functionalities to a basic level of user-friendly, sine qua-non components, yet with sustainable performance, might be highlighted as good practices for digital scholarship. CNs follow minimal computing principles by utilising hardware and software that is low-budget or free/libre, with reduced clutter and essential operations, that can be further analysed as critical aesthetic frameworks, able to efficiently respond to collective needs (Gil, 2015; Sayers, 2016).

In this context, the focus is to explore the cultural-technological intersectionality of local community networks and its affordances as useful infrastructures for enhanced cultural event

planning, fieldwork research and digital curatorial practices. The three applied cases presented here are examples of physical proximity community networking platforms that have adjusted and utilized the open-source applications of the MAZI toolkit (NextCloud, Etherpad, LimeSurvey and Wordpress) in different cultural settings, mounting the toolkit on a low-sized hardware with minimal computing capabilities (Raspberry Pi):

i. Media exchange, audience communication and voting in a cross-cultural Balkan event

The open-source toolkit was used for enhancing audience engagement during a multifaceted short film festival in the Balkan region, which lasted 4 days and recorded more than 300 portal visits. A custom-designed interactive digital platform was developed for sharing images, writing comments, enabling real time chatting with local community members and offering a voting system where individual preferences could be expressed. The platform allowed for the people to exchange information, experiences and ideas on the basis of mutual respect, while gathering and providing valuable, anonymous feedback to the hosts of the festival. The local wi-fi zone was available exclusively in the space of the event, giving visitors the opportunity to simultaneously co-exist in a physical and digital environment, thus creating both local tangible and intangible communication channels. MAZI operated as a hands-on tool for building a participatory site-specific digital infrastructure for cultural event organisation, particularly suitable for outdoors or out of internet range areas.

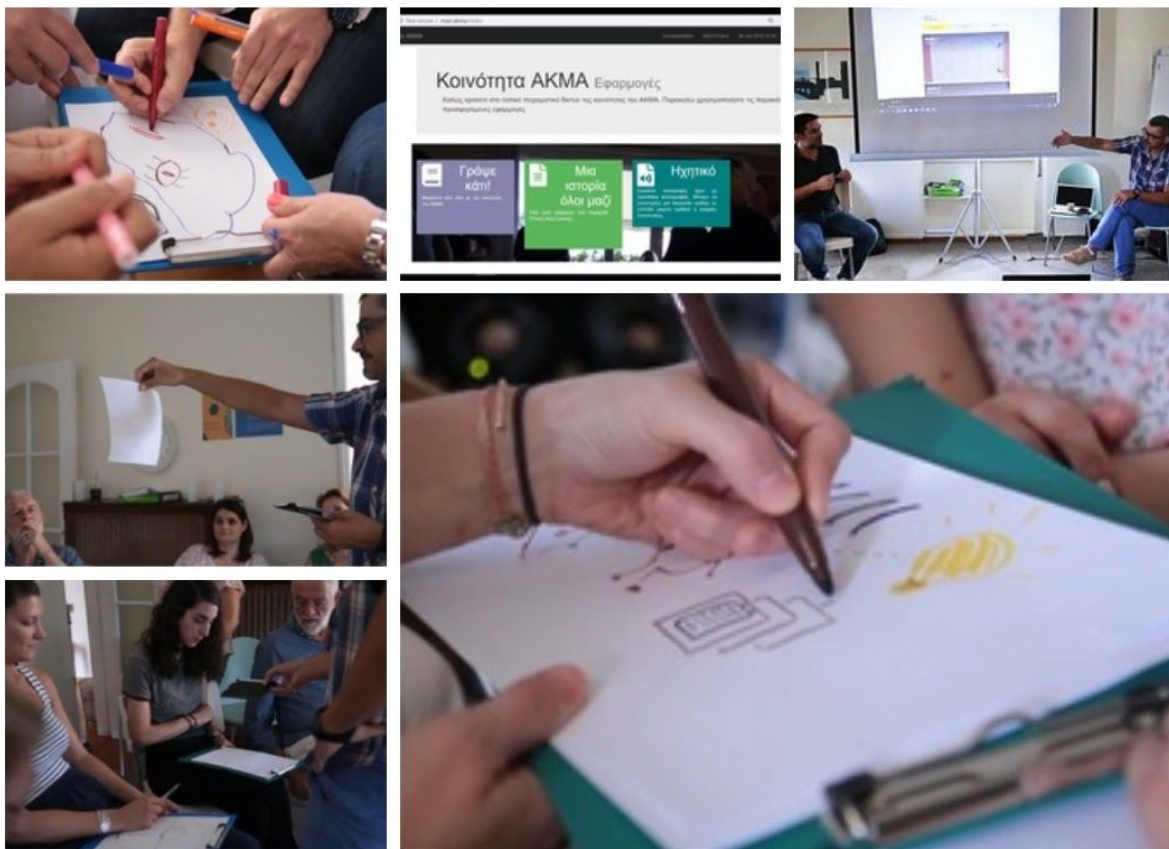


Local community network (MAZI zone) in cultural event planning, 2019.

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ii. Collaborative commenting and anonymous participation in community-based fieldwork research

During community-based research, we employ an array of participatory techniques that elicit multimodal qualitative data: collective drawing, collaborative creative writing, reflective blogging, storytelling. Ethically recording these data to analyze them later it is a critical part of any research project. MAZI is a local community network with build-in anonymity that allows users to connect and share without registering their identities (by default). Protecting anonymity and ensuring privacy is an ethical requirement, and true anonymity cannot be attained through commercial Internet infrastructures. On the other hand, physical proximity is required to connect to the MAZI network. In this way, a kind of anonymized-authentication is achieved: only the community members we are working with are able to access the wifi spot and make contributions. The data produced can easily be shared in the here-and-now of a physical meeting through a data projector, often surprising participants when they realize their collective power, and invoking further rounds of contributions. In this way, MAZI bears the potential to transform a group of people into a convivial, spontaneous and creative research community, producing critical and ready to analyze empirical data.



*Local community network (MAZI zone) in fieldwork research, 2019.
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iii. Digital exhibition hosting and community-based curation with added content

Digital exhibitions in HTML format built from scratch, hosted in a variety of open-source local networking infrastructures (Piratebox, Librarybox, MAZi zone). The exhibitions could be accessed only locally, on-site, traveling along the venues. The audience could explore the exhibition by connecting to the local network (no internet access) through their personal devices. Piratebox and Librarybox have enabled off the grid, anonymous digital file-sharing, by supporting their mounting on commercial routers in hacker mode. Digital exhibitions were saved in a USB stick attached to the portable hacked router. With the use of MAZI and its combination of open hardware and software support, the option for the audience to upload their own content and collectively contextualise the exhibition has been explored. The use case of MAZI here was utilising a wireless local network as an exploratory and participatory digital curatorial tool.



Local community networks (Piratebox, Librarybox, MAZI zone) in digital exhibition curation, 2015-2019. CC BY 4.0 Moving Silence (top and left image), Data-stories Confestival (bottom right image)

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