

945358-BIGPICTURE
Central Repository for Digital Pathology

WP6 – Sustainability

D6.01 BIGPICTURE Community online

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Document History

Version	Date	Description
V1.0	17 Sep 2021	Outline of report
V1.2	29 Oct 2021	First Draft
V2.0	10 Nov 2021	Addressing comments on first draft
V3.0	25 Nov 2021	Final Version

Abstract

Developing a sustainable and trustworthy, digital AI pathology platform for research and innovation is the main objective of BIGPICTURE work package 6. Key community stakeholders can be both data users and data contributors and vary from clinical pathologists, to researchers to commercial parties.

In order to initiate community engagement, we establish online platforms and mechanisms of community engagement. We leveraged our internal community and established external presence. Within the BIGPICTURE community itself various internal informing meetings have been organized and steps have been undertaken to create presence outside of the BIGPICTURE community.

Methods

Mobilizing and engaging key community stakeholders, described as task 6.1, was initiated through leveraging the networks of the internal BIGPICTURE community and utilize their diversity and broad reach across our intended community.

We envision developing the community incrementally, beginning first with the BIGPICTURE beneficiaries already invested in the project, reaching out next to slide contributing third parties, and finally extending to the general community as the value of the project is made evident broadly.

Webinars covering specific topics related to artificial intelligence and digital pathology have kicked off in October 2021. A variety of additional meetings have been held, including with slide contributing third parties to initiate their engagement in the community. Presence outside of the BIGPICTURE community has been established through the launch of a public website and a LinkedIn page and publication in a peer reviewed journal.

Results

Engaging the BIGPICTURE community itself is performed by various work packages through informative meetings and online platform presence. We build the cohesiveness of the Big Picture consortium internal community and utilize the foundation of diverse participants to extend out to the external community.

Webinars

Webinars covering specific topics related to artificial intelligence and digital pathology have kicked off in October 2021. The first topic covered was 'Federated Learning and Digital Pathology' and was held on October 15th 2021 and attended by 91 participants. The next is planned for November 12th 2021 and is entitled 'Towards a European Health Data Space Regulation: impact on the BIGPICTURE project' and at the moment of writing this report has 72 registrants. On December 10th 2021 a webinar will be held entitled 'Preview of tools for converting digital slide datasets to BIGPICTURE repository, On January 14th 2022 a webinar entitled 'AI to extract WSI signatures' is planned and on February 18th 2022 a webinar entitled 'Using clinical trials to validate machine learning tools' will take place. It is anticipated to have a webinar organized every month to keep the BIGPICTURE community engaged.

Slide-contributing third-party (SCTP) meetings

On May 26th the first SCTP took place and was attended by 67 participants. On October 6th the second SCTP meeting was held and was attended by 57 participants. Interactive question and answer sessions

took place on various topics including data sharing agreements, minimum metadata requirements, financial rewarding and data access.

Website

The website <https://www.bigpicture.eu/> was launched with its first goal to inform the broader public about the mission and vision of BIGPICTURE, the objective and the team and how to contact the team.

LinkedIn

Since the start of the project a LinkedIn page can be found via <https://www.linkedin.com/company/bigpicture-project/> and has 206 followers. Activity has started with seven posts created. Activity will be expanded following maturation of the BIGPICTURE corporate identity.

Scientific presence

The BIGPICTURE vision is published in peer-reviewed journal Toxicologic Pathology findable via Moulin P, Grünberg K, Barale-Thomas E, der Laak JV. IMI-Bigpicture: A Central Repository for Digital Pathology. Toxicol Pathol. 2021 Jun;49(4):711-713. doi: 10.1177/0192623321989644. Epub 2021 Feb 11. PMID: 33571073. This paper is cited 4 times and downloaded 1038 times.

We will stimulate active scientific collaboration around specific dataset within the BIGPICTURE repository, analogue to initiatives like the CAMELYON challenges (<https://camelyon16.grand-challenge.org> and <https://camelyon17.grand-challenge.org/>). We also stimulate findability by publishing all work in github (www.github.com/imi-bigpicture) and publish a digital object identifier (DOI) for every data set used.

Conclusion

Steps have been made in mobilizing and engaging key community stakeholders. The first goals of informing the broader public via a website, published paper and LinkedIn have been completed. Next iterations will be to expand activity on these platforms through for example newsletters and social media campaigns. These activities will be part of the communication plan covered by work package 1. A next step would be to monitor and evaluate the success of the community through measuring the numbers of website visitors, engagements of visitors, and enquiries about use of BIGPICTURE. As we build the community we are conscious of the diversity of expertise our members represent and the potential challenge that poses to developing a truly vibrant and fully interactive group. Mindful of this challenge, we will take steps to mitigate it. In particular, the community consists of a breadth of experts ranging from pathologists to data scientists, and communication across these disciplines can be challenging, particularly as some terms do not mean the same to data scientists as they do to pathologists. One example of how we will support community building is that it will be important to create a glossary of terms we use in order to stimulate the community feeling. In conclusion, we herewith describe how we made the first movements to start creating an online community building on developing a sustainable and trustworthy, digital AI pathology platform for research and innovation.