

Digital Action at Higher Education Institutions as a Catalyst For Social Change in the COVID-19 Crisis (HEIDI

Some examples of digital action inside and beyond universities during the pandemic

Citizen science | maker movement | digital hacktivism

#### **Deliverable Factsheet**

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**Abstract** This publication serves as discussion material for a forthcoming

series of public events at European universities in autumn-winter 2021, about the role of higher education in tackling crises through digital action. This short, non-exhaustive publication offers examples of digital action carried out at universities-partners in the HEIDI project and at universities outside the HEIDI partnership. The selection of digital actions serves to incite ideas exchange during the

online public events foreseen and beyond.

**Keyword list** activism, ICT, civic engagement, Higher Education Institutions (HEIs),

knowledge, policy

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#### Consortium

	Name	Short name	Country
<b>≜UCL</b>	University College London <a href="https://www.ucl.ac.uk">https://www.ucl.ac.uk</a>	UCL	UK
CITIZENS IN POWER	Citizens in Power <a href="https://www.citizensinpower.org">https://www.citizensinpower.org</a>	CIP	Cyprus
Web2Learn Open, social learning	Web2Learn https://web2learn.eu	W2L	Greece
L-Università ta' Malta	University of Malta <a href="https://www.um.edu.mt">https://www.um.edu.mt</a>	UM	Malta
Université de Paris	University of Paris <a href="https://u-paris.fr/en/">https://u-paris.fr/en/</a>	UP	France

#### **Statement of originality**

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

#### **Disclaimer**



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## The context: digital action in the pandemic and the role of universities

#### **Context**

The COVID-19 outbreak brought to the forefront societal challenges affecting all sectors of human activity. Numerous initiatives strive to tackle these challenges through technology-enhanced, community-driven digital actions (DA). These initiatives take place at a local, national and international level and highlight the dynamics and strengths of DA as a catalyst for social change in crisis contexts. Evidence suggests that the pandemic resulted in an increase in digital participation, likely to have arisen due to people spending more time online, and to an increase of social inequalities [1].

In this context, traditional models of knowledge creation and circulations have shifted, challenged by bottom-up, community-driven action and the networking of individuals worldwide. This triggers discussions (and actions) regarding the role of Higher Education Institutions (HEIs) as mainstream institutions of knowledge production and circulation in this new landscape.

#### The HEIDI project

In this realm of digital action in the fight against the pandemic, the HEIDI project (Digital action at HEIs as a catalyst for social change in the COVID-19 crisis) offers an opportunity for university students and staff to identify and understand drivers and barriers to university adoption of societal values in a crisis situation, while seeking to identify the needs of various community groups, including vulnerable ones.

With the aim to offer HEIs a more central role in the ongoing debates about social change through skills development of HE staff and students and to situate HEIs as cocreators in solutions to the problems that surface with the pandemic, the HEIDI project seeks to create collaborative frameworks between HEIs, voluntary-sector and civil society organisations.

#### Purpose of this publication

This publication serves as discussion material for a forthcoming series of public events at European universities in autumn-winter 2021, about the role of higher education in tackling crises through digital action. 15 round table discussions and 2 webinars are foreseen, organised by HEIDI partners. With the aim to trigger multiperspective discussions during these online events, this short publication offers examples of practical implementation of digital action carried out at partner-universities in the HEIDI project and at universities outside the HEIDI partnership. The selection of digital actions highlighted in the publication is not exhaustive and only serves to incite the exchange of ideas during the online public events foreseen. Synthesis of discussions across all events will take the form of a report: "Drivers and barriers of Higher Education engagement in digital action: case studies from Cyprus, France, Greece, Malta and the UK", which is expected in December 2021.

#### Methodology

Although digital activism is an overarching term covering several types of initiatives [2], we opted for three main forms: citizen science, maker movement and hacktivism. These three forms will be highlighted because of three reasons. Firstly, because they are considered widespread forms of social participation, secondly because they are becoming increasingly popular in the current pandemic, and thirdly because higher education institutions, although to various degrees, show demonstrated interest in these forms of activism.

From May to July 2021, partners of the HEIDI project identified examples of DA forms inside and outside their university and collected them in a shared online spreadsheet. These examples were assessed for compliance to the scope of this publication. Two examples for each of the three main forms of DA were selected, as a means of increasing discoverability and awareness among target groups that may be less familiar with digital activism. Further readings are offered at the end of the publication for readers wishing to explore the topic more indepth.

#### **Digital action: a definition**

Digital action, or more accurately, digital activism (DA), refers to instances of social and political campaigning practice that use digital network infrastructure [3]. The term encompasses the digital technology that is used in a given activism movement, the economic, social, and political context in which such technology is used, and the self- or group motivation that triggers action [4]. Digital activism will be used as an umbrella term including multiple forms of digitally supported social action, where technological choices, modes of participation, degrees of engagement, organisation and scope can vary. Hereafter we depict three main forms of digital activism.



#### Citizen science

Citizen science covers that part of open science in which citizens can participate in the scientific research process in different possible ways: as observers, as funders, in identifying images or analysing data, or providing data themselves. This allows for the democratisation of science, and is also linked to stakeholders' engagement and public participation [5]. Because citizen science can make science more socially relevant and increase ownership and participation of citizens in the shaping of policies [6], it is considered a main form of digital activism.



#### **Maker movement**

Maker movement refers broadly to the growing number of people who are engaged in the creative production of artifacts and who find physical and digital forums to share their processes and products with others [7]. It is characterised by three features: the use of digital desktop tools, a cultural norm of sharing designs and collaborating online, and the use of open-source standards to facilitate sharing and fast iteration [8]. Artifacts issued from 3-D printing, electronics and robotics are typical results of maker spaces (known also as fabrication labs--fab labs).



#### **Hackativism**

As this umbrella term implies, hacktivism is hacking to achieve social or political objectives. In this publication we mostly refer to civic hackers, organised groups that perform digital actions such as building and updating digital systems for the good of the community and in a legal manner [9]. Civic hackers deploy information technology tools to enrich civic life, or to solve particular problems of a civic nature, such as democratic engagement [10]. Hackathons, datathons and annual Open Data Days, are typical hacktivism initiatives.

#### **Overview of examples**

#### **Citizen Science**

Crowd-based, self-organised translation project supported by Master's students in Scientific Translation

University College London

University students as activists and open scientists in several initiatives against COVID-19

University of Malta

#### **Maker culture**

Medical equipment for COVID-19 co-produced by UCL students as part of an international maker community

University College London



UP students join several maker projects aimed at digital solidarity

University of Paris

#### **Hackativism**

Academia-third sector cooperation to the benefit of a social purpose

University College London



Disability hackathon

University College London and non-academic partners

# **Example 1: Citizen Science at University College London**Self-organised, crowd translation project supported by Master's students in Scientific Translation

#### **Objective**

MSc students at UCL's Scientific Translation department contributed as volunteers to the international crowd translation initiative (COVID Translation project).

#### **Description**

At the start of the pandemic, UCL Extreme Citizen Science (ExCiteS) Group members became aware of the COVID Translate Project https://covidtranslate.org/ and alerted UCL's Scientific Translation department. As a result, MSc students of scientific translation contributed to a hurried effort led by Sebastian Seung to provide translations of Korea's pandemic guidelines in multiple languages. One UCL student was asked to be a team leader.

The COVID Translate Project is led by many volunteers from around the world to translate a 75-page playbook published by Korea Centers for Disease Control and Prevention (@KoreaCDC) into English and various other languages, with the mission of spreading the knowledge worldwide to fight COVID-19. The project started in March 2020 when Professor Sebastian Seung, Princeton Neuroscience Institute, tweeted a call for volunteers to crowdsource a translation of this protocol for local governments and public health officials. Within a few weeks, many different global teams and individuals offered to translate into their respective languages.

#### **Key takeaways**

- A non-governmental self-organised initiative that was started by academics and students, indicative of the power of individuals who, although situated in different locations and not knowing one another, succeed in completing tasks in a time efficient way.
- Open access results that advance science at a stage of limited insights into the pandemic.
- University students' agility to put their expertise (MSc in Translation) to the benefit of a social purpose.

#### More information

COVID Translate Project <a href="https://covidtranslate.org/">https://covidtranslate.org/</a>
UCL: a call for translators in crisis situations
<a href="https://www.ucl.ac.uk/human-resources/news/2020/may/volunteer-translators">https://www.ucl.ac.uk/human-resources/news/2020/may/volunteer-translators</a>

# **Example 2: Citizen Science at University of Malta**University students as activists and open scientists in initiatives against COVID-19

#### **Objective**

The Department of Pharmacy at the University of Malta has set up several volunteering taskforces involving its students to support teams that are geared to address pharmaceutical needs during the pandemic. In some projects, open standards (as a component of open science) are used.

#### **Description**

Recognising the importance of pitching in to help improve the overall COVID-19 situation, university students in Pharmacy joined task teams such as the ones outlined below:

- Preparation of hand rub for healthcare facilities: the hand rub is prepared according to World Health Organisation formulations. This team worked within the Pathology Department of Mater Dei Hospital in collaboration with the Central Procurement and Supplies Unit of the country.
- Volunteering at the COVID-19 National Helpline: another group of pharmacy and pharmaceutical technology students are contributing to the pool of volunteers manning the national help line coordinated by the Department of Public Health of the Ministry of Health.
- Distribution of medicine to older and vulnerable patients: other students are participating in the service of delivering medicines to patients at home. Through this task force, patients who are due to collect their chronic medication on the national health scheme from private community pharmacies and who are not able to go to the pharmacy or send a proxy, can receive their medicines at home thanks to these students.
- -Support of community pharmacies: pharmacy students are also volunteering to support community pharmacies which are currently front-line providers of pharmaceutical services

#### **Key takeaways**

- Citizen science understood as the participation of citizens (university students and staff) in re-use of open standards for the creation of artifacts for a social purpose (here: preparation of hand rub according to two World Health Organisation formulations available as open access standards)
- An example of an agile and responsive university department that addresses a crisis through involvement of students in real-life, curricula-related digital actions.
- Possibility of combining several forms of digital activism, as an example of capacity
  of a university to diversify its practices depending on needs of local communities

#### More information

https://www.um.edu.mt/newspoint/news/2020/04/pharmacy-students-efforts-COVID19

# Example 3: Maker culture at University College London Medical equipment for COVID-19 co-produced by UCL students as part of an international maker community

#### **Objective**

UCL students contributed to the creation of medical equipment for people in need in the current pandemic, as members of TOM (Tikkun Olam Makers), a global movement of makers.

#### **Description**

UCL students in Engineering and Medical Sciences joined the TOM global community of makers voluntarily and produced medical equipment as a response to the pandemic. The contribution of the UCL students is part of TOM, a global community that tackles "neglected challenges": mostly involving people living with disabilities, the elderly and the poor.

Under the pandemic, designs for medical equipment and equipment items were coproduced by smaller maker communities belonging to the global community. The TOM portal allows teams to have a dedicated page within the portal, where teams can cluster online but also onsite (as did the UCL students), display events (as a means to gather more volunteers), showcase the artifacts created, and thus network and contribute to the global effort.

#### Key takeaways

- Maker communities are agile as part of the organisational mode they adopt: exclusively online, onsite (including a dedicated Internet page displaying community members, artifacts, etc.) and blended. The networking dimension and sharing culture are strong, as this example shows (embeddedness in a global community).
- Maker communities can be self-organised, as in the example of the UCL students
  who joined the initiative as individuals, not as part of a course or
  encouraged/incentivised by the university. Yet, the display of their identity as UCL
  students in the global community can serve to strengthen connections and
  increase visibility and recognition.

#### **More information**

https://tomglobal.org/

## **Example 4: Maker culture at University of Paris**UP students join several maker projects aimed at digital solidarity

#### **Objective**

Designing and producing artifacts during the pandemic with a social value. Examples: contributing to citizen-driven initiatives to equip urban public gardens as co-production places for community well-being.

#### **Description**

Orgatec is a project that students at UP submitted to the "Digital Solidarity" initiative of the Orange Foundation, in the 2018 edition of the competition. The Orgatec project is an educational innovation project led by UP staff members Ophélie Jeannin, Daniel Assayag and 15 students, as part of the project "Fablab Solidaire" (Solidarity Fablab). Through the exploration of fablab techniques (digital fab, 3D, code, arduino, carpentry, botany) and of the philosophical and ethical framework of new models of a sustainable society, the students embarked on the construction of an autonomous urban agriculture system. Orgatec as an initiative continued to grow and in 2020 UP students and staff contributed to the collective the "Vergers Urbains" (Urban Orchards). This initiative brings together local communities, volunteers and experts who create shared permaculture gardens in Paris. Students produced materials to equip these gardens (e.g., fence installations and yards) at the UP makerlab "CRI MakerLab Paris".

#### **Key takeaways**

- Makerspaces at universities serve as niches of co-construction in the pandemic crisis and as bonding opportunities. The makerspaces' contribution to public urban gardens is an example of social cohesion and well-being during the pandemic.
- The online networks of maker communities give strong impetus to the movement especially during lockdowns and as a response to the massive need for medical equipment.
- There is an increasing number of fab labs and maker spaces at university campuses, which reflects an institutional interest in the maker movement. During the pandemic and subsequent closures of university campuses, physical maker spaces located at university campuses have often remained open, as the production of medical equipment was underway, showing quick responsiveness during the outbreak.

#### More information

https://makerlab.cri-paris.org/ https://makerlab.cri-paris.org/category/projet-orgatec/ http://vergersurbains.org/

## **Example 5: Social hackathons at University College London Academia-third sector cooperation to the benefit of a social purpose.**

#### **Objective**

Social Hackathons at UCL are problem-solving and solution-creating events that give UCL volunteers a first-hand insight into the third sector. Students are matched with a charity for one day to solve pressing issues they are facing. This academia-third sector cooperation allows students to put their knowledge and skills to the benefit of a social purpose.

#### **Description**

UCL student-volunteers are placed with a local not-for-profit organisation for one day, devising and implementing solutions to issues that the third sector faces. In addition, virtual social hackathons, exclusively online, are organised for one week every year - in 2020 and 2021 this scheme was particularly beneficial due to the mobility restrictions imposed by the pandemic.

The first-ever Hackathon series started in February 2019. This was the pilot programme to see whether these Hackathons could appeal to both students and charities alike. Students worked on a range of tasks: compiling a Business Case for setting up a trading subsidiary, designing a visually impaired-friendly website; devising a marketing strategy, and engaging an isolated community.

The 2020 Social Hackathons included developing a more inclusive online employment process for people with Asperger's, helping a community organisation to source tech devices to combat digital poverty for their beneficiaries, and advising a charity on how to redesign their website to engage a wide variety of stakeholders.

The 2021 Social Hackathons included projects such as a virtual visit to Kentish Town City Farm with a day of generating a new fundraising product, improving mentoring sessions for the refugee and asylum-seeking charity Salusbury World; and generating accessible and engaging online content for Eye Heroes.

#### **Key takeaways**

- UCL Social Hackathons are understood as civic hacking initiatives that deploy information technology to enrich civic life, or to solve particular problems of a civic nature.
- A variety of placements at different not-for-profit organisations across London, with strong social value in the design of academia-third sector cooperation.
- A wide range of technologies as a means of interaction, knowledge exchange and outreach.

#### More information

https://studentsunionucl.org/volunteering/about/social-hackathons/report

## Example 6: Hackathons co-led by UCL and non-academic partners

#### A disability hackathon

#### **Objective**

During the pandemic, TechSoc organised hackathons as a response to the pandemic and more widely in the framework of technology-enhanced social inclusion. Founded in 1999, Technology Society (TechSoc) is a well-established society within UCL with a mission to promote technology both within and beyond UCL. Techosoc aims to advance the technological capabilities of our members through talks, workshops, coding challenges, and in particular hackathons, in the form of 24h-hour sprints.

#### **Description**

UCL TechSoc organised the "Accessibility hackathon 2020" together with Project Impactive, a voluntary engineering initiative, and King's College London (KCL) Technology society in April 2020. Student teams were expected to solve specific accessibility problems faced by disabled people in their everyday life. With support from disabled citizens and experts, hackathon members had to identify a technological solution enabling people to live more independently or go about their day-to-day activities with less difficulty.

Winners of the hackathon were offered mentoring and financial support to develop their idea into reality. Runners up were encouraged to continue to work on their idea for the second phase of the hackathon, where more mature prototypes were refined and reassessed.

#### **Key takeaways**

- Hackathons can be successfully co-organised by universities and non-academic partners, as demonstrated by this hackathon, an organiser of which was a not-forprofit organisation working with disabled persons, thus bringing to the forefront real user needs.
- Follow-up activities such as a second phase of a hackathon or incentives for runners up (incubation, additional consulting, matchmaking with investors) are essential for the pursuit of winning ideas, as hackathons are very limited in time.

#### More information

TechSoc website <a href="https://ucltechsoc.com/#events">https://ucltechsoc.com/#events</a>
Accessibility hackathon 2020 <a href="https://tinyurl.com/information-pack-acceshack2020">https://tinyurl.com/information-pack-acceshack2020</a>

## Other forms of digital action

public talks
support communities
fundraising
live concerts

challenge-solving in relation to the pandemic

#### **Example 7: A public awareness campaign**

## The rugby football club of the University of Malta encourages youths to get vaccinated

#### **Description**

Malta's rugby union clubs and a number of student organisations have come together in a joint initiative to encourage young people to get vaccinated against COVID-19. The social media initiative entitled #GetVaccinated, was spearheaded by the University of Malta's rugby union team UM Wolves RFC, and involves a total of five rugby union clubs and 15 University student organisations.

The initiative kicked off on Monday 17 May 2021, the day when registration for the vaccine opened up to all those between the ages of 16 and 29, with all organisations and clubs taking part widely sharing the message to #GetVaccinated

#### More information

https://www.um.edu.mt/newspoint/news/2021/05/youths-vaccination-campaign

#### Example 8: UCL support with expertise and skills to underresourced communities

UCL funds projects to the benefit of the voluntary and community sector in East London as they confront and recover from COVID19.

#### **Description**

The UCL Culture Engagement Team is joining forces with the voluntary and community sector (VCS) to explore how UCL as a whole can best "Listen and Respond" to the needs of communities and the voluntary sector in London as they confront and recover from COVID19. The scope of UCL Listen and Respond is thus to better connect VCS organisations with people and groups within UCL who are interested and able to provide support. Several projects have been funded, connecting UCL staff and students with community organisations, around an identified issue resulting from Covid-19. An example project is the "Rapid Evaluation Advice and Learning Service with Camden Council". At the onset of the Covid-19 lockdown, Camden Council was required to re-engineer almost all of its key services, from child support to business growth, within a matter of days. This pilot project used the skills and expertise of UCL staff and students to support Camden Council to reflect on and evaluate service delivery during the Covid-19 outbreak

#### More information

https://www.ucl.ac.uk/culture/projects/listen-and-respond

#### **Example 9: Live concert for public awareness**

Safe Space for All - A concert by the Faculty for Social Wellbeing, University of Malta

#### **Description**

The Faculty for Social Wellbeing, in collaboration with KSU (University of Malta Student Council), hosted its first Live Welcome Concert entitled "Safe Space for All", video streamed on Facebook. The faculty also invited three of its students/alumni to speak about resilience, inclusion and equality.

#### More information

https://www.um.edu.mt/newspoint/events/um/2020/12/safe-space-for-all-fsw

# Example 10: Covid Detective by students and staff of University of Paris

**Covid Detective** 

#### **Description**

The "Do-It-Together SARS CoV-2 Detective" project develops an open-source detection method for SARS-CoV-2, using frugal, tabletop methods, based on LAMP DNA amplification methodology. The initiative was developed by students (Masters level and PhD) from the University of Paris who collaborated with interested scientists and citizens from around the world. The project received seed funding by Just One Giant Lab (JOGL), which is an international community of digital open innovation.

#### More information

https://app.jogl.io/project/181

https://www.protocols.io/view/corona-detective-user-protocol-v2-0-bpwzmpf6 https://www.cri-paris.org/en/newspage?id=CemkndDr

## Example 11: Student COVID-19 Recovery Challenge A call for ideas from UCL students to solve issues caused by the

pandemic.

#### **Description**

The UCL Faculty of Medical Sciences launched the Student COVID-19 Recovery Challenge in June 2020. It was set against the backdrop of the coronavirus pandemic, where the lockdown of the previous March saw many overseas students rushing home, face-to-face teaching was cancelled, and the most restrictive of summer breaks had begun. UCL academics were making a direct contribution to tackle the crisis, and UCL Grand Challenges had mobilised the research community with the Recovery from COVID-19 initiative.

255 students took part, coming up with 34 inspiring ideas. The brief demanded innovative applications that were realistic and deliverable within six months, with a budget of £50,000.

#### More information

https://www.ucl.ac.uk/medical-sciences/innovation-and-enterprise/our-studentsand-graduates/rising-challenge-ucl-students-solutions-tackle https://www.ucl.ac.uk/medical-sciences/study/student-experience/student-covid-19-recovery-challenge

#### **Example 12: Quantified Flu**

#### **Description**

This open collaborative project aims to answer the following question: "Can the various physiological parameters tracked by our wearables help to predict when we're getting ill?

A project to use various physiological parameters tracked by our wearables to help predict when we're getting ill with COVID or other diseases. Publicly accessible data is available on the project website.

Financial support for this project comes from the Open Humans Foundation and UP/CRI Paris. Additional support is provided by a grant from the Open COVID-19 Initiative from Just One Giant Lab.

#### More information

https://quantifiedflu.org/ https://quantifiedflu.org/public-data/ Digital action initiatives carried out by universities outside the HEIDI partnership

#### #A: hackathon by a consortium of Cypriot universities as a response to COVID-19

- Hack{cyprus} and the Research and Innovation Centre on Interactive Media, Smart System and Emerging Technologies CYENS Centre of Excellence (formerly known as RISE), Cyprus
- https://hackthecrisis.hackcyprus.com/
- #HackTheCrisisCyprus- a Digital Hackathon taking place annualy. The 2020 edition was grouped around 4 themes: Saves Lives, Save Communities, Save Businesses, Save Mental Well-being. Several prototypes have been created, widening opportunities for innovators to come together in a time of global crisis.

#### **#B: The Patient-Led Research Collaborative**

- International network
- https://patientresearchcovid19.com/
- A self-organized group of Long Covid patients working on patient-led research around the Long Covid experience. Members are all researchers in relevant fields participatory design, neuroscience, public policy, data collection and analysis, human-centered design, health activism in addition to having intimate knowledge of COVID-19. Research papers are co-authored and published open access.

#### **#C:** Bartlett Hacks: Climate solutions in a time of pandemic

- Four specialist institutes at the University College London, supported by mentors from other universities.
- https://bartletthacks.com/
- Bartlett Hacks is an online hackathon designed to foster collaboration and develop ideas for the urgent climate emergency we still face during the coronavirus crisis and helping build resilience for a post-pandemic world. The hackathon is split into six subject areas or 'tracks': energy systems, food systems and supply chains, travel and transport, urbanisation, ICT, and water systems.

#### #D: #EUvsVirus, the EU Hackathon for coronavirus challenge

- European Commission supported by several European HEIs and Research centres
- https://www.euvsvirus.org/
- #EuvsVirus created 2,164 multi-disciplinary, multi-nationality teams with innovative solutions throughout April 2020, then sparked the development of 2,235 new cross-European partnerships by matching the best 120 teams with 500+ supportive partners from the public and private sectors throughout May 2020.

#### #E: Corona Report: A citizen science initiative to learn more about the effect of Covid

- Scottish Collaboration for Public Health Research and Policy (SCPHRP), which is based at The University of Edinburgh, School of Health in Social Science
- https://www.england.nhs.uk/coronavirus/primary-care/infection-control/ppe/\_
- CoronaReport is a citizen science project for documenting the influence of COVID-19 on our lives. Citizens can use the CoronaReport app to share their stories and to better understand how the virus is changing lives all around the world. These data are helping scientists understand how the virus is affecting the way people live and work.

#### #F: Innovation Hackathon: COVID-19 Recovery Challenge for university alumni



https://www.covid-19recoverychallenge.com/ and https://www.eventbrite.co.uk/e/innovation-hackathon-covid-19-recovery-challenge-tickets-104036471888

A long (5-day) hackathon for graduate and undergraduate students at Imperial College, London School of Economics (LSE) and Harvard. During the five days, the organisers delivered workshops, exciting keynote speakers, and a 1-on-1 mentorship by industry professionals.

#### #G: COVID-19 and social isolation

Scholars from several UK universities under the coordination of UCL

https://www.marchnetwork.org/creative-isolation

A mental health network focused on the power of bringing people together with social, cultural and community assets. Covid-19 has thrown unique challenges to this group, which triggered a collection of home-based, creative ways to support mental health during these unique and uncertain times.

#### **#H: Open COVID-19 initiative**

- Several international HEIs, research centres and business partners runing this initiative within the framework of Just One Giant Lab (JOGL), an international community, a non-profit, open-source, collaborative platform, and a bastion to open-science and impact innovation.
- https://app.jogl.io/program/opencovid19
- OpenCovid19 is a JOGL program that develops open-source and low-cost tools and methodologies that are safe and easy to use in response to the COVID-19 pandemic. The OpenCovid19 program is powered by a global community of 4000+ volunteers and experts who create solutions to better prevent, detect, and treat COVID-19, and to help forecast the pandemic's evolution.

#### References

- [1] Barber, H. (2020, August 26). Covid-19 has ushered in a new era of digital activism and global leaders are listening. *The Telegraph*,
- https://www.telegraph.co.uk/global-health/climate-and-people/covid-19-has-ushered-new-era-digital-activism-global-leaders/
- [2] George, J. J., & Leidner, D. E. (2019). From clicktivism to hacktivism: Understanding digital activism. *Information and Organization*, 29(3), 100249. https://doi.org/10.1016/j.infoandorg.2019.0 4.001
- [3] Joyce, M. (Ed.). (2010). *Digital activism decoded: The new mechanics of change*. International Debate Education Association.
- [4] Kaun, A., & Uldam, J. (2018). Digital activism: After the hype. *New Media & Society*, 20(6), 2099–2106. https://doi.org/10.1177/1461444817731924
- [5] European Commission (2015). New trends in Open Science. Digital Single Market website https://digital-strategy.ec.europa.eu/en/news/new-trends-open-science
- [6] European Commission. Directorate General for Research and Innovation. (2020). Citizen science and citizen ngagement: Achievements in Horizon 2020 and recommendations on the way forward. Publications Office. https://data.europa.eu/doi/10.2777/05286e

- [7] Halverson, E. R., & Sheridan, K. (2014). The maker movement in education. Harvard educational review, 84(4), 495-504.
- [8] Anderson, C. (2012). Makers: The new industrial revolution. New York: Crown.
- [9] George, J. J., & Leidner, D. E. (2019). From clicktivism to hacktivism: Understanding digital activism. Information and Organization, 29(3), 100249. https://doi.org/10.1016/j.infoandorg.2019.0 4.001
- [10] Hogge, B. (2010) Open Data Study: New Technologies. Open Society Foundation. Available at: https://www.opensocietyfoundations.org/sit es/default/files/open-data-study-20110519.pdf

#### Further readings and indicative projects

#### **Readings**

Briscoe, G. & Mulligan, C.. 2014. Digital Innovation: The Hackathon Phenomenon. CreativeWorks London Working Paper No. 6.

http://www.creativeworkslondon.org.uk/wp-content/uploads/2013/11/Digital-

Innovation-The-Hackathon-

Phenomenon1.pdf.

PDF/source-77975731

Eitzel, M. V., Cappadonna, J. L., (...) et al. (2017): Citizen Science Terminology Matters: Exploring Key Terms. Citizen Science: Theory and Practice, 2, 1.

European Commission. (2017). LAB-FAB-APP: Investing in the European future we want: report of the independent High-Level Group on maximising the impact of EU research & innovation programmes. https://op.europa.eu/en/publication-detail/-/publication/ffbe0115-6cfc-11e7-b2f2-01aa75ed71a1/language-en/format-

Haklay, M., Motion, A., Balázs, B., Kieslinger, B., Greshake Tzovaras, B., Nold, C., Dörler, D., Fraisl, D., et al. (2020). ECSA's Characteristics of Citizen Science: Explanation Notes. ECSA European Citizen Science Association 10.5281/zenodo.3758555.

Mueller, M. P., & Tippins, D. J. (Eds.). (2015). EcoJustice, Citizen Science and Youth Activism (Vol. 1). Springer International Publishing. https://doi.org/10.1007/978-3-319-11608-2

Mutsvairo, B. (2016). Digital activism in the social media era. *Switzerland: Springer Nature*.

Vohland, K., Land-Zandstra, A., Ceccaroni, L., Lemmens, R., Perelló, J., Ponti, M., Samson, R. & Wagenknecht, K. (2021). *The science of citizen science*. Springer Nature. <a href="https://link.springer.com/book/10.1007/978">https://link.springer.com/book/10.1007/978</a> -3-030-58278-4

Vahidi, H.; Taleai, M.; Yan, W.; Shaw, R. Digital Citizen Science for Responding to COVID-19 Crisis: Experiences from Iran. Int. J. Environ.Res. Public Health 2021, 18, 9666.tps://doi.org/10.3390/

ijerph18189666

Zourou, K. (2020) Language learning as the agency for a social purpose: examples from the coronavirus pandemic. *Alsic* Vol. 23, n°1. <a href="https://journals.openedition.org/alsic/4880">https://journals.openedition.org/alsic/4880</a>

#### Initiatives, projects

Researcher Activist Network (RAN) https://researcheractivistnetwork.wordpres s.com/ The Network fosters a community of social justice activists within academia and beyond.

Youth Citizen Science project https://www.youcountproject.eu/ *Increasing social inclusion of youth at risk across Europe through youth citizen social science.* 

Digital Solidarity initiative https://www.fondationorange.com/-Digital-solidarity-60- An initiative by Fondation Orange that awards best projects of digital solidarity since 2018

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