## WDMDAD: THE PANDEMIC EDITION

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#### What Do Musicologists Do All Day?

 aim: a better understanding of musicologists' daily use of digital technologies and their attitudes towards these

#### perspectives

- Frans Wiering: human-computer interaction; human centred design
- Charles Inskip: information studies; information literacy
- first WDMDAD survey in 2014/2015

#### IN THEIR OWN WORDS: USING TEXT ANALYSIS TO IDENTIFY MUSICOLOGISTS' ATTITUDES TOWARDS TECHNOLOGY Charles Inskip Frans Wiering

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ABSTRACT

A widely distributed online survey gathered quantitative and qualitative data relating to the use of technology in the research practices of musicologists. This survey builds on existing work in the digital humanities and provides insights into the specific nature of musicology in relation to use and perceptions of technology. Analysis of the data (n=621) notes the preferences in resource format and the digital skills of the survey participants. The themes of comments on rewards, benefits, frustrations, risks, and limitations are explored using an h-point approach derived from applied linguistics. It is suggested that the research practices of musicologists reflect wider existing research into the digital humanities, and that efforts should be made into supporting development of their digital skills and providing usable, useful and reliable software created with a 'musicology-centred' design approach. This software should support online access to high quality digital resources (image, text, sound) which are comprehensive and discoverable, and can be shared, reused and manipulated at a micro- and macro level.

volved. Whereas human-centred approaches to systems design are increasingly used in digital humanities, they have been rarely applied to digital musicology.

The use of modern technology in the digital humanities has been widely explored in the last ten years [2-9]. Existing research has identified domain-specific differences between humanities and scientific researchers in their information behaviours. These appear to be predominantly influenced by the analogue or digitised surrogate nature of the research objects in humanities, and the practices of humanities researchers, which are frequently around lone research. Research indicates that humanists welcome technology when it speeds up workflow [8-9], rely on informal peer networks, primarily access monographs, libraries and private collections, search by browsing and citation chasing, and use exploratory search strategies [2]. The core issue underlying technology adoption is thus not so much technophobia as the acceptability and relevance of technology as part of the research process.

This work sets out to explore the adoption of software tools by musicologists in their digital scholarship practices ("the ability to participate in emerging academic, professional and research practices that depend on digital systeme" [10]). These tools, which allow the interconstion

1. INTRODUCTION

https://archives.ismir.net/ismir2015/paper/000171.pdf

## 2022 WDMDAD survey

#### motivation

- impact of recent technological developments
- use of technology during pandemic
- expected impact of pandemic on future technology use
- technology = digital technology in all its variety
  - not just dedicated musicological software, resources or services
- analysis in progress, initial results
  - some quantitative outcomes
  - emerging themes
  - variety of responses

By our use of the word 'technology' we mean software or computer hardware which you use to do your research, so it would include, for example, MS Office, Spotify, Finale or music21, and (eg) laptop / mobile device / desktop but it wouldn't include aircraft, photocopier or CD player.

## Participation

- recruiting participants
  - musicological societies
  - mailing lists and social media
  - participants in WDMDAD 2015
- 584 usable responses
  - not everyone made it to the end
  - WDMDAD 2015: 621
- Q1: did you participate in the previous WDMDAD survey?
  - not much overlap in participants



#### Q2: location



#### rather similar, though with some interesting differences

### **Digital skills**

- Q4: how confident would you say you are using digital systems and materials...?
- skewed distribution, over 70% is confident (score 4 or 5)
- almost the same distribution in 2015 and 2022



#### **Specialities**

 Q7: what is your speciality? (multiple answers allowed)



again, rather similar responses



## Digital skills vary per speciality



- maybe related to amount of specialist tool use?
- again, rather similar to 2015 outcomes

#### Prefererred type of resource

- Q9: top 5 information or music resources
- question changed wrt. 2015, no simple comparison
- except for books, digital is generally preferred over physical
  - note low score for physical journals
- musical resources score low
  - though not as low as in 2015
  - many archives and ms. collections studied for musical content?



#### Other preferred resources

#### includes

- digital media
- fieldwork
- 'data'
- non-musical resources

participants newspaper magazines participation generation discovery ephemeral participatory midi currently bibliographic collection participant platforms game carried **ethnographic** cantus jstor programs done surveys personal delpher field living visual digitised video collections archive museums physical data online musical social lot open mainly dvds media data online musical social lot open files person audio interviews apis chat oral consoles internet articles youtube music fieldwork blogs games census programms including instruments databases film zoom collected python archival live streaming database diamm piano history audiovisual musicience press email . python museum catalogues musicians clips digital mmmo bibliographies facebook public ethnography documentation notebooks observations manipulation questionnaires

#### Preference and...



slight correlation, less strong than in 2015



#### preference and speciality are correlated

## Preference change

• Q11: To what extent has your preference [...] changed during the pandemic?



interesting relationship with skills level (not much vs. some/a lot)



suggests larger changes in specialities working with physical objects and activities

#### Q12: why?

conferences often without hard journals preference restrictions period change since closed prefer get print materials available always lockdown almost difficult materials available become travel use physical much easier work also increased online able ease found still libraries digital access now two way find easy find easy changed books person archives int digitized used int digitized used copies visit  $^{\text{digitized}}$  used availability sources home lot music information etc less digitised material many items started possible accessible archival collections articles covid physically preferred

### Q12: Why?

person relevant physically also travel articles collections remote vears archives working find music scores made sources still digitized found form either materials used way iread many <sub>often</sub> much change looking almost lot always office book need work pandemic access just less limited since using digital physical time operations online prefer ones archival started computer libraries books exclusively due able started esour digitised library se eseal archive think changed journals via print even possible available material get university one items really read mostly preference easier reliant terms institution information preferred availability accessible conferences

literature discovered historical manuscripts annotate possibilities copies highlight campus internet working material book get last age unable information lockdown issues country change using closed work much now need find leave time using closed work much now need find even browsing main limited visit use libraries travel mability based closure online far remote resources digital home sources forced fine new due research access pandemic live done really music library physical available also years allows journals became made able archiv 'es books lot become expected found accessible however restricted materials covid many continue easy accessibility archival digitised availability changed restrictions months without ebook convenient everything

not much

a lot

#### Preference not changed much

Most of the material I work with (perhaps 70% or more) is simply not available in a digitized form, of a digitized form that I have access to.

physically person relevant also travel articles collections remote years archives working find music scor sources still materials music scores used digitized found anyway almost lot always arready much change looking however office book need work pandemic access limited since using digital physical time ..... computer libraries books resources online prefer ones exclusively due able archive think changed research use home digitised library journals 🗤 print even possible available material get university really read mostly preference easier reliant terms preferred availability institution information

In terms of convenience of accessibility I prefer digital resources. However, I usually prefer physical resources because a) I have the impression that my retentiveness is better when working with physical resources, and b) I get access to information which digital resources can not provide...

Because I already lived in a remote location [...] before the pandemic, and manuscripts don't move around. So I was already reliant on digital sources / ILL / buying in

The pandemic has had an impact in the possibilities for collaborating with musicians to create new data, but not in the methodologies I had established before it.

#### Preference changed a lot

#### Not having access to physical libraries and archives made me focus on digitised material

My original thesis intended to seek information in physical archives. However the physical archives where I live closed [...] The digital archives were still available, and, I discovered, the information contained in them filled lacunae that had puzzled me for some time [...]

really music library physical available far remote resources digital available far campus internet working material book get us ileave time using closed work much now need find even browsing based closure online far remote resources digital home sources forced ease fine new due research access pandemic live done really music library physical available became journals became able archives ong made able archives books lot become expected found accessible however restricted materials covid many continue easy accessibility archival digitised availability changed restrictions months without ebook convenient everything

I forced myself to become fluent in digitized resources during the pandemic. This has become convenient, and I have continued using these resources.

> I changed my research interest from historical musicology to acoustics and almost everything is available online

No possibilities for travelling to archives and libraries made me search the web much more than before, and I found more than I expected.

#### Experiences and insights

- Q13-14: frustrating and rewarding experiences with technology
- Q15-17: risks, limitations and benefits of technology
- initial exploration by topic, rather than by question
- capture variety in responses

I wrote up a project to digitise the collection of the music museum but there were no sponsors or grants available [...] I abandoned my music research, conferences and publications activities.

Tech makes musicological research possible for me, full stop. If digital resources and technology did not exist/was available to me, I would not be able to do research.

#### Technology experiences

technology	comments
zoom	225
internet	74
google	63
jstor	57
youtube	50

problem frustration libraries resources institution page sibelius space even often many working problems several teams University connection trying via experiences without technology teaching also new files data sound able large library model since ne using frustrating library need since computer first sources none **Using** pandemic days screen made needed ves used books Use Zoom access home copy time work online software available different get laptop music internet audio conference always video find experience difficult just day physical book students people covid nothing related slow due conferences know materia everything meetings impossible

learning otherwise international course experience conference <sup>university</sup> still another computer colleagues technology like great etc think allowed sources working digital software continue just books **Conferences** well meetings two several lot work get aterial lot work get online also music data first available rewarding online attend new free found using one use able research home archives world access zoom much library different even soul people via time far <sup>2020</sup> made really pandemic many used face things nothing without now students person travel years increased possible teaching presentations google ability covid resources virtual since events digitized experiences

frustrating

rewarding

One of the most frustrating experiences was teaching my class on ZOOM [...] and incorporate music and video examples [...]

Zoom has been extremely frustrating, in the quantities that have been required. I will get a debilitating 48-hour-long headache if I have to be on zoom for more than 6 hours in a day. With many conferences moving online but not adjusting schedules in a sensible way [...]

# zoom

The introduction of Zoom into my work life has been great! It feels like barriers that used to exist between people because of physical distance have been lifted. I think I've had more communication with people in different parts of the world since the pandemic than ever before Zoom [...] allowed me to teach throughout covid and it allowed me to participate in conferences. It is impossible not be deeply thankful for those who invented these programs. Zoom is not the same as teaching or lecturing in person, especially, in the case of music. But teaching from one's home had something emotional and beautiful about it. It has been somewhat frustrating to have to conduct ethnographic research via Zoom, as it does not permit some of the nuances of social interaction one normally has in person. Zoom interviews are difficult to schedule in the context of a culture which does not routinely schedule things at specific times.

### Performance and fieldwork

I work with ethnography and oral history. Covid hasten to decline of fieldwork collaborations as international travel became impossible [...] Research in performance became reliant on zoom and other platforms.

The enthusiasm with which universities pretended that such performance experiences were equal to face to face contact illuminated the extent to which they will go to convince stakeholders of the stability of their business model. The main limitation in performance research is the loss of live performance rehearsal and collaborative work - which often stimulates new discoveries, and the ability to assess the originality of unknown pieces or composers. Massive reduction in interaction with colleagues. Online conferences do not provide the level of exchange that in-person conferences do.

The ability to have large-scale meetings (and attend conferences) at all in pandemic times, using new technologies such as Zoom and Gather Town. The former massively contributed toward being able to continue with 'business as usual' as far as possible, whereas the latter really conveyed at least a little bit of the collegial atmosphere of a conference poster session.

#### **Conferences and collaborations**

Increased level of personal sharing of materials between researchers, while the libraries were closed.

Being able to run an online conference on Zoom in the early days of the pandemic, leading to a longlasting informal network of specialists across the world. The 'sudden' emergence of online zoom meetings of various research interest groups was highly rewarding. It allowed me to be in the 'room' with a number of very well respected thinkers in the field. Technology allows us access to at least some resources and source materials no matter where we might be located.

One thing that comes to mind is that researchers reliant on digitized materials are at the mercy of those on the other side of the scanner. We don't have a say in prioritizing what gets digitized and what doesn't.

#### Access and availability

Not a frustrating experience, but doing research in something that has not been very well researched means that there are not many resources in digital forms. Going back to library after two years has been eye opening. Access, both in terms of expense and facility of use, is a large contributing factor to who can and cannot take advantage of technology in their research.

Libraries/archives may be more hesitant to let people see original materials. [...] If we all become too dependent on technology we will lose out on what these 'analog' experiences can offer. I am concerned about how reliance on digital resources can shape research questions and trends - a topic which to my knowledge no one has looked into. Our tools shape the way we think - if something is not available digitally there is a risk that it effectively doesn't exist in terms of research.

### Methodology and technology

It let us not stop. It led us to ask different questions. It led us to learn new skills. It prompted research areas that might not have been visited without the urgencies of limitation.

The limitations were not the result of using technology for musicology research, which has been done for quite some time. The limitations were actually in the high and perhaps unrealistic hopes that people had for what could be accomplished by digital research alone [...]

Cultivating a disproportionate perspective on what digital musicology is/does/offers, particularly in the eyes of money-obsessed academic administrators who might see it as a way to increase scale and scope of activities without having to retain as many scholars in their institutions.

#### Q18: Which changes will you keep?

something conference lectures attendance book material already attend remote remotely feel international colleagues teach ng meeting sources people iterences con know office possible alwavs etc virtual events calls meet lot ebooks **using** changes hybrid stay **USe** libraries wav digital online pandemic music travel like iust data able also archives none continue working think option format access part time make research keep less library made google used classes real one via students much resources likely days accessible face probably forced change video interviews available better need seminars technology computer nothing materials participation

#### none, nothing (34 times!)

I have learnt a lot about online and hybrid ethnography which will probably remain relevant for a long time to come.

Online as a starting point is likely to stay, although I look forward to being able to supplement it with physical presence with the books and documents

### archives **none C**

possible

Zoom is here to stay when the pandemic is over along with all the technical skills that one has acquired interviewing, researching and making content during the pandemic. I will probably revert back to most of my previous data gathering strategies

I haven't made any really substantial change. I guess attending conferences and other meetings online will remain an option, to be used only in situations when it's ABSOLUTELY IMPOSSIBLE to attend in person

[...] some online tools for surveing and collaboration for teaching I will keep in the future. In those conferences and symposia I help to organize, I will try to promote the hybrid format for the democratising and environmental benefits [...]

[...] I will keep advocating for online participation for everyone who wants it at conferences, and encourage archives and collections to continue to digitize their materials and make them available for free

#### Outcomes 1: impact of recent technological developments

- digital skills and musicological specialities not much changed
- data suggest increased preference for digital resources
- wider range of resources (streaming media, social media, online data)
  - further analysis needed

#### Outcomes 2: use of technology during pandemic

- degree of change varies wildly between participants
- often a matter of practical adaptation to circumstances, less often one of preference
- zoom impacts both daily work and social structure of the discipline
- (temporary?) increase of use of digital resources
- desire for methodological reflection on digital vs. physical approaches

#### Outcomes 3: expected impact of pandemic on future technology use

- again, very wide range of responses
- for some: discovered new resources and methodologies
- new research topics
- moving towards hybrid social infrastructure for the discipline: conferences, collaboration, communication

if this is true, then maybe this is the last physical-only IMS Congress...

Thank you for listening and for participating in WDMDAD