Digital Art Online: Perspectives on User needs, Access, Documentation and Retrieval

Dr Leo Konstantelos, University of Glasgow

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Outline

- Introduction

- Case Study

- User Needs Assessment

- The Importance of the Study

- Further Work

- Conclusions

Introduction

- ## The Project:

  - PhD thesis conducted at the University of Glasgow

  - Explores digital art needs for documentation and retrieval

  - Based on a user-oriented approach

  - Looks at Digital Art as learning and research material

  - Investigates practices in online digital art resources

Introduction

- The Issues:

    - Digital art is a record of modern culture for future scholars

    - Dissemination methods often bypass the traditional channels of memory institutions; artefacts are exhibited online

    - Huge collections of digital art in dedicated online resources

    - Are museums/art galleries the sole arbiters of value?

    - What are the scholarly uses of this material?

    - What are the needs of users and how can they be accommodated?

Introduction

- ## Methodology:

  – Case study of current documentation and retrieval practices

  – User needs assessment to identify documentation and retrieval requirements for scholarly communities

  – Implementation of deriving user needs in a prototype Digital library

  – Summative evaluation to measure satisfaction with prototype

Case Study

- Sixteen digital art online resources

deviantART	Digitalart.org	Renderosity	Digital Art Show
Digital Art Museum	Museum of Computer Art	Austin Museum of Digital Art	Digital Art Source
RHIZHOME	The Digital Artist	ArtQ Artist Portfolio Online	Art Wanted
Digital Art @ Mansco Style	Digital Abstract	D'Art Fine Art	ArtsCAD Art Gallery

Case Study

- Selection criteria based on:

    - Popularity (Search engine rankings, Alexa statistics)

    - Reference in publication

    - Information from the community

Case Study

- Examined Variables:

  – Type of resource (Reference only, Repository, Online Portfolio, Art Directory)

  – Access policy (Free, Registration, Paid Membership)

  – Collections material (Digital art only, Heterogeneous, N/A)

  – Metadata (Descriptive, Technical, Artist-dependent)

  – Online Sales Platform

  – Other features (e.g. Mailing lists, social tools, historical information)

Case Study

- Summary of Results:

  - Mission statements

    - to promote community interactions – mostly done

    - to engage a community of digital art users – arguable outreach activities

    - to emphasise on the educational and research value of digital art – mostly lacking

Case Study

- ## Summary of Results:

  - Documentation

    - most resources feature some kind of documentation for artefacts

    - inconsistencies in descriptive and technical metadata

    - discretionary use of elements, no mandatory fields

    - mostly system generated, resource-specific data
      (e.g. date of submission, views, file size, user ratings)

    - Only ca. 300 out of 2000 examined artefacts with complete metadata

    - More than 30% of remaining material with no metadata at all

    - Only two resources used formal metadata standards (RHIZHOME, DAM)

    - The rest rely on ad hoc methods and, in some cases, social tagging

Case Study

- Summary of Results:

  – A digital art market network

    - Sales and profit over scholarly value

    - A 'sub-economy' outwith the traditional art dealing network

    - Based on new economic models
      (print on a t-shirt, a cup, a coaster, your pyjamas, have it as a wallpaper...)

    - Difficult to keep track of artefacts without contacting the artist – who is often referred to by a nick name, with no record of contact details!

Case Study

- **Summary of Results:**

  – Search and Discovery

    - Only 4 out of 16 resources optimised for search engine exposure **of collections**

    - Only 6 out of 16 resources offered searching functionalities for their collections

    - Sorting of collection items mostly based on community-related criteria (e.g. user ratings)

    - Organisation of collections in distinct units based on variable, bespoke subject headings

    - Copies of the same artwork in multiple collections under different title/creator

Case Study

- Deriving issues:

  - How do digital art online resources meet their mission statements?

  - How can 'educational value' be exhibited if documentation is poor?

  - How does the digital art market affect scholars and artists?

  - Do current discovery and retrieval provisions satisfy user needs?

  - What are the implications for archiving, curating and preserving this material?

User Needs Assessment

- Needs Assessment meant to:

    – Cover issues deriving from case study

    – Reveal the needs of scholar community for documentation and retrieval of digital art from online resources

    – Define an audience for digital art as learning material

    – Generate recommendations for further action

User Needs Assessment

- Identifying a target population for the assessment:

  – Very little known about digital art users

  – Even less information on a demographic description for digital art audiences based on conclusive research

  – This research (being exploratory) postulated that the emergent community of digital art scholars should be evident within the disciplines of the Arts & Humanities and Fine Arts

User Needs Assessment

- General Design:

  – Web Questionnaire for A&H scholars based in the UK

  – Interviews with digital artists

  – Structured as a social survey

  – Formalised and theoretically underpinned by sociotechnical theory

User Needs Assessment

- Indicative questions:

  - A&H Scholars:

    - metadata requirements for digital art and adequacy of currently available description provisions in digital art resources;

    - search patterns to locate digital art on-line and level of satisfaction ;

    - relationship between disciplinary orientation and usage of digital art

    - awareness over the nature and content of digital art;

    - reasons for incorporating digital art in learning or research strategies;

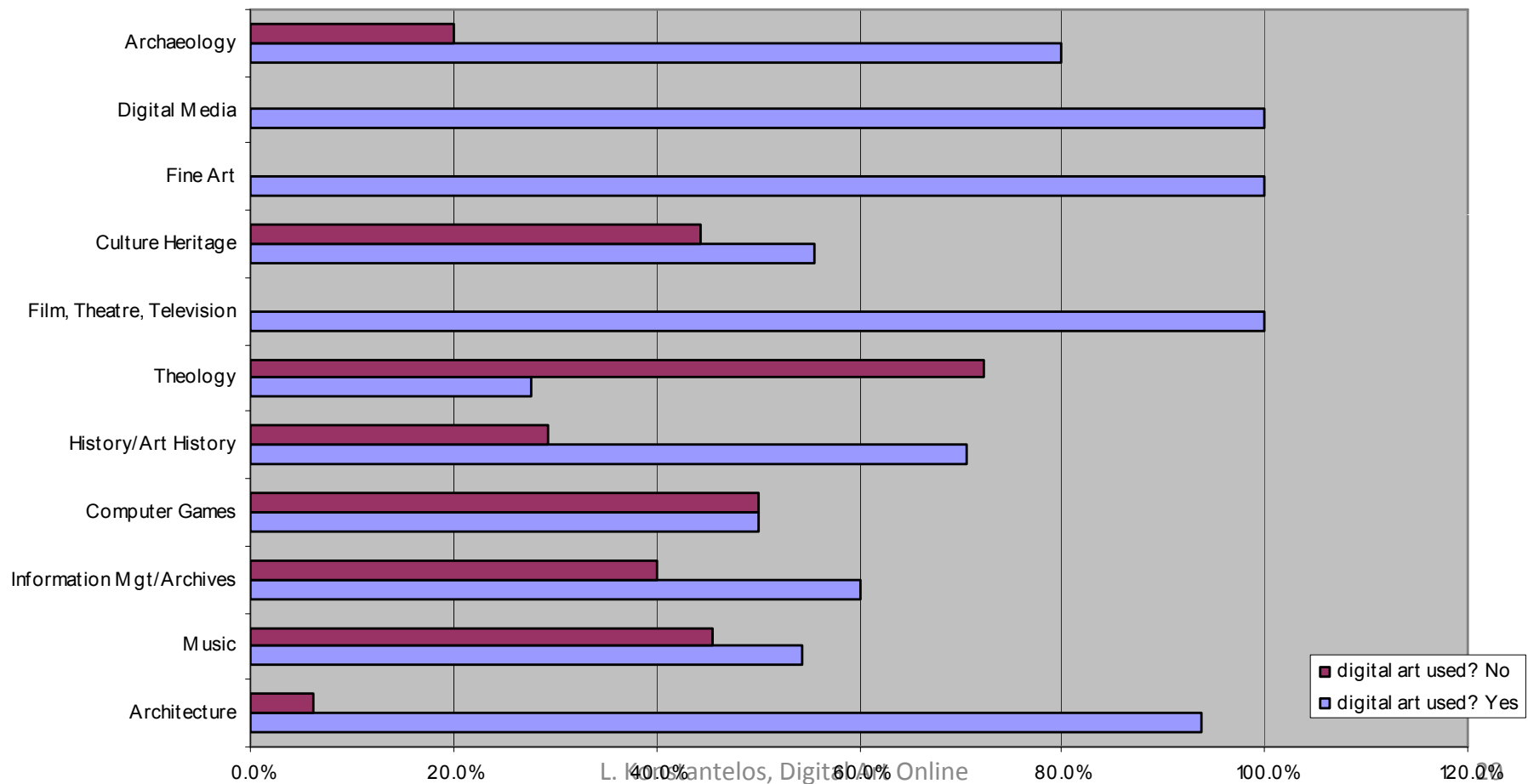# User Needs Assessment

- Indicative questions:

  - Digital Artists:

    - preferred dissemination methods for digital art works;

    - commonly used digital art repositories;

    - usage and adequacy of existing metadata to formally describe digital art works;

    - intellectual property and copyright considerations

User Needs Assessment

- Response rate:

  – 470 questionnaire replies (425 fully completed)

    • Statistically significant sample to be generalised to entire population

  – 40 Interviews with digital artists from three continents

    • Informative role, hence no requirement to generalise

User Needs Assessment (A&H Scholars)

- Usage of digital art by academic orientation:

User Needs Assessment (A&H Scholars)

- Top reported reasons for interest in digital art:

1. As record of modern culture
2. As a new medium for creating art / For inspiration
3. Studying socio-cultural implications of digital media
4. Material included in a project/lecture
5. As an example of contemporary practice in the Arts
6. Course/Research involves creation of digital art
7. Course/Research involves study of new media genres

User Needs Assessment (A&H Scholars)

- Resources used to locate digital art:
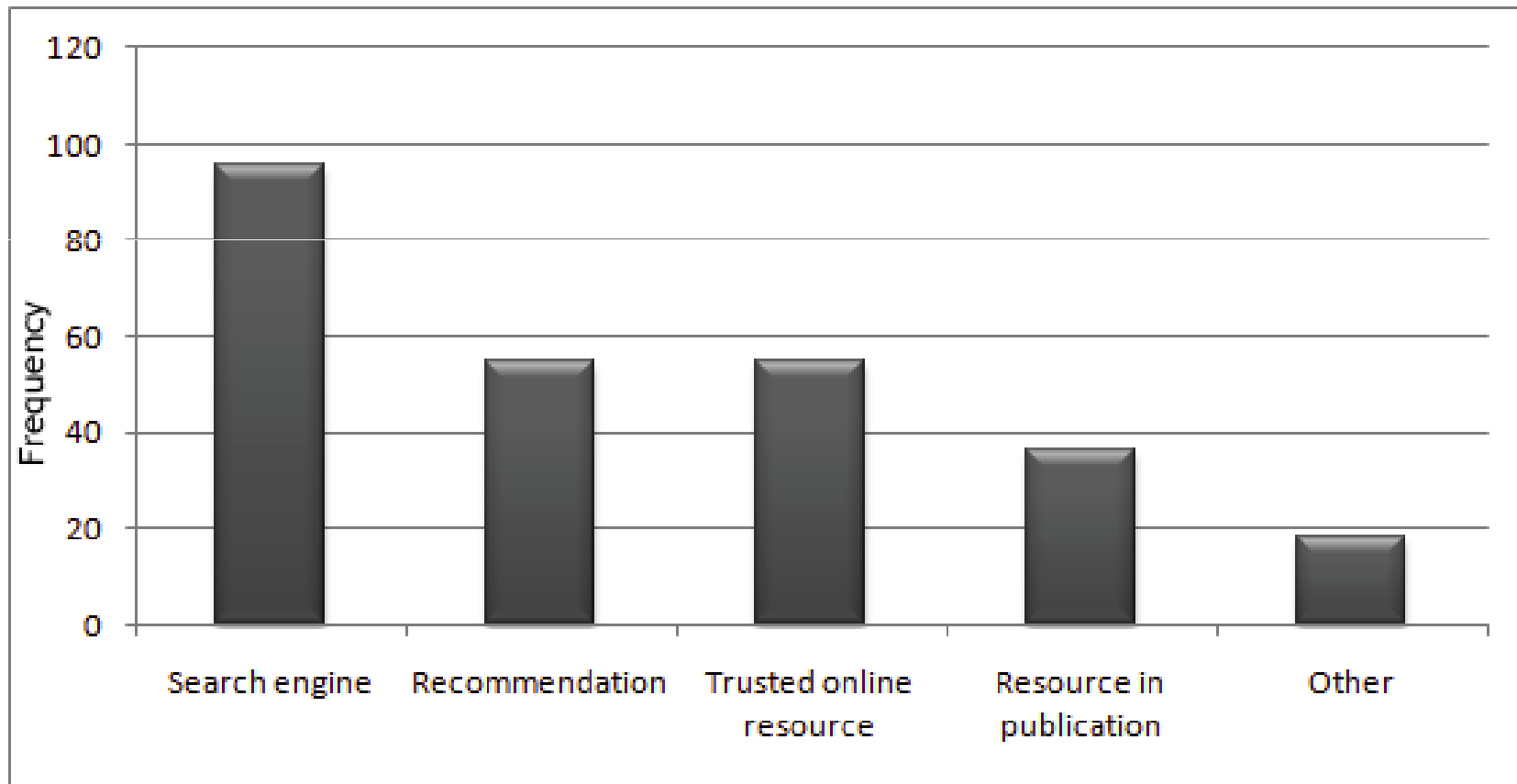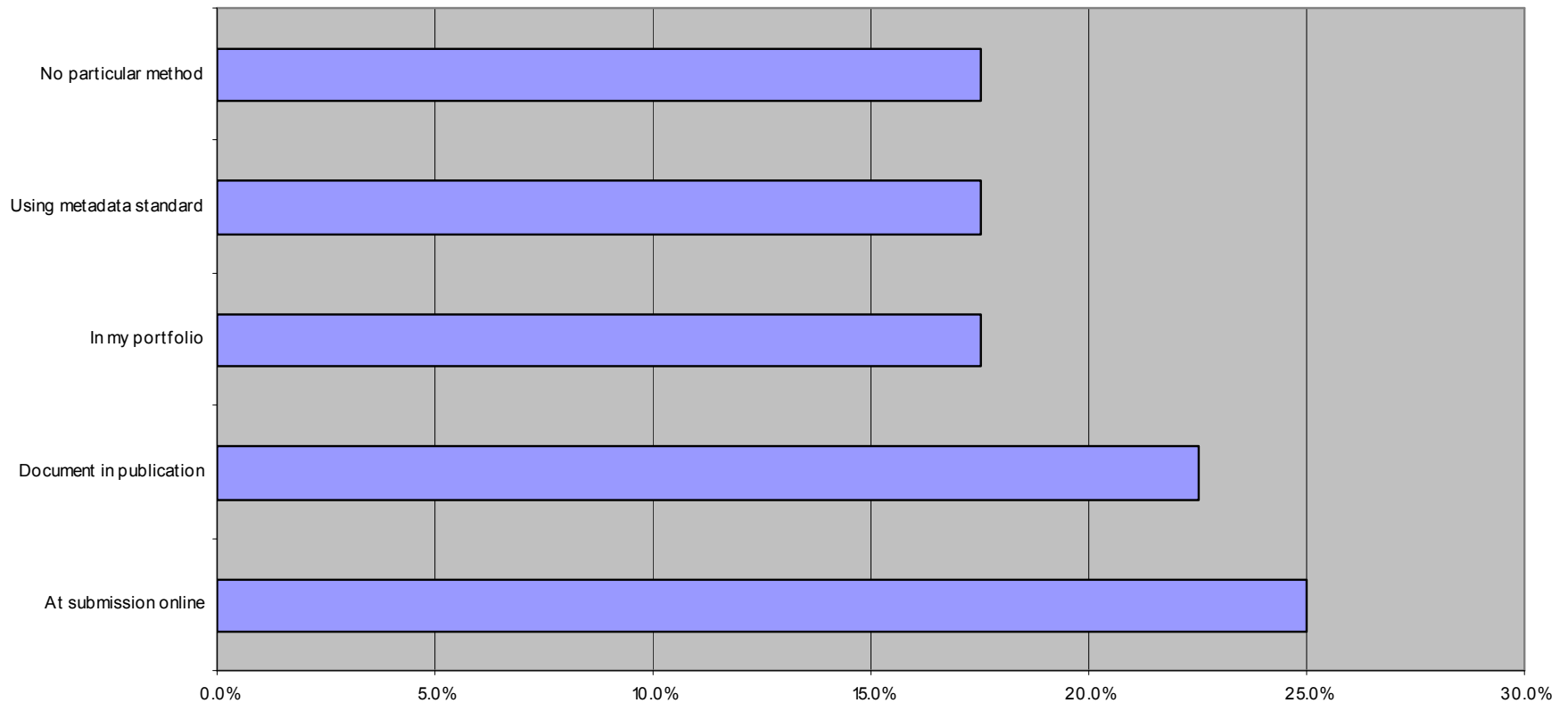
User Needs Assessment (A&H Scholars)

- Top issues to be addressed re searching for digital art:

1. Material scattered among many online resources

2. Incoherent / randomly / erroneously used vocabulary to describe material

3. Inappropriate use of subject headings / index terms / tags

4. Links to irrelevant content

5. Dead links in initiatives/projects/online galleries due to discontinuation of funding or abandonment

User Needs Assessment (A&H Scholars)

- Top metadata elements to accompany digital art works:

1. Access rights (copyright)
2. Information about creator / artist
3. Requirements to view the material (software, hardware)
4. Digital art genre
5. Software used to create artwork
6. Hardware used to create artwork
7. History of changes made to original
8. Changes in ownership

User Needs Assessment (Digital artists)

- Most common methods to describe own artwork:

User Needs Assessment (Digital artists)

- Feedback on current documentation practices and metadata provisions in online digital art resources:

  – *Metadata in the museum context exist and there is an ongoing effort to amend and improve them; I'm actually referring to the MANS initiative here. But in the greater scheme little effort is made to document digital art in preservation or retrieval terms. Most digital art websites use their own metadata, nothing standardised.*

  – *[…] The question is who is going to describe all that material, or at least who is willing to, in a way that conforms with practices in other fields.*

  – *Conservation starts at the point of creation, so I was taught. In the same spirit, curating digital art should start at the time of ingest to an online database […] and standardised vocabularies would be an incredible contribution to the community.*

User Needs Assessment (Digital artists)

- Feedback on current documentation practices and metadata provisions in online digital art resources:

    - *Make it mandatory [to describe digital artworks at submission]! There is no other way I'll ever spend the time to fill in fields. I understand it's important, but at the same time I don't quite feel ready to take the responsibility. Isn't that what the Tate and the Guggenheim are all about anyway?*

    - *Let us consider the Van Gogh case, a great example of revealing the history of the painting through technological means. Except if virtual art becomes a highly-esteemed form of art in the future, what is the motivation of research being invested in revealing any previous versions of the work? I don't even know if that is technically possible. What I do know is that we have the capabilities [through metadata] to retrace the history of virtual art works here and now. So yes, versioning is important [...] and could also include how the image rendered in specific contexts with certain types of hardware/software.*

Why are the study results important?

- Initial description of an audience for digital art

    - A wide range of disciplines within the A&H and Fine Arts

        - Not just the apparent; think of Theology, Archaeology and Architecture

        - A formally expressed identification of (potential) users

        - By no means conclusive, but a decisive first step

Why are the study results important?

- A roadmap for understanding digital art users and their needs

  – provides a benchmark to measure perceived quality of current documentation and retrieval services

  – recommendations can feed into cultural heritage institutions' practices

  – implementation of user requirements can promote the scholarly value of digital art

Why are the study results important?

- Highlight the role of cultural heritage institutions

  – By focusing the attention of critics and audiences

  – By situating work in historical context

  – By allocating time and space for experiencing the works

  – By organising dissemination activities

  – By offering training, briefing and consultancy

Why are the study results important?

- Highlight the role of cultural heritage institutions

  - …but the results also reveal that good practice guidelines may exist, but have not reached the wider digital art community

    - For instance, the Media Art Notation System and the Variable Media Network offer good recommendations for documenting digital artworks and suggest an initial controlled vocabulary

    - Their adoption in digital art online resources is minimal

Further Work

- Building on these findings:

  – Planets Report on *Emerging Digital Art Characterisation techniques*

    - Review of existing documentation platforms

    - A first approach towards a controlled vocabulary for context classification

      – Based on sociotechnical theories that define context for computer-based artefacts

      – Viewing digital/new media arts as sociotechnical networks

    - http://www.planets-project.eu/docs/reports/Planets_PC5-D5_Emerging_Digital_Art_Tech.pdf

Further Work

- Building on these findings:

  – Planets Report on *Preservation of Dynamic & Interactive Content by use of Binary Translation and Virtualisation*

    - Review of emerging digital preservation techniques

    - Experimentation methodology to gauge their suitability for accessing, curating and preserving dynamic digital and interactive artworks

Further Work

- ## Preservation of Complex Objects Symposia (POCOS)

    - Project funded by the JISC to capitalise on the state-of-the-art and produce good practice guidelines

    - Three symposia across the United Kingdom focusing on:

        - Visualisations and Simulations

        - Software-based Art

        - Gaming Environments and Virtual Worlds

    - Collaboration between University of Portsmouth (Coordinator), British Library, HATII, King's College London and Joguin sas

    - http://www.pocos.port.ac.uk (forthcoming)

Further Work

- Keeping Emulation Environments Portable (KEEP)

  – Extensive research into preservation of dynamic and interactive digital artefacts through Emulation Services

  – Formalised model for technical metadata in emulation environments; researched conducted at the University of Portsmouth

  – http://www.keep-project.eu

  – (find David Anderson and Janet Delve for UoP in the audience for further info!)

Conclusions

- Educational value can be established through synchronised archival, curation and preservation efforts

  - Rigorous documentation of digital art works

  - Conformance with metadata standards to allow for uniform descriptions and interoperability with material in heterogeneous collections

  - Definition of agreed upon controlled vocabularies and subject headings

Conclusions

- Preservation starts at the point of creation

    – Until implemented by digital art online resources, many artefacts remain in the 'danger zone'

    – Often impossible to document works retrospectively due to lack of information / contact with artist

    – Necessity to advise artists and resources on good practice

Conclusions

- Preservation signifies long-term access

  – Fragility of the digital medium and ad hoc processes means that collections material might disappear without a trace

  – Case study shows that even mid-term access may not be possible

  – Necessity to move from 'online resource' to 'structured repository'

  – Necessity to collect, organise and document the material

  – Necessity to establish collaborations with the wider digital art community, not just focus on high profiled artists

Contacts & References

- Leo at HATII:

  – Leo.konstantelos@glasgow.ac.uk

- Leo at University of Portsmouth:

  – Leo.konstantelos@port.ac.uk

- For more information:

  – Konstantelos, L. (2009). *Digital Art in Digital Libraries: a Study of User-oriented Information Retrieval*. PhD Thesis, University of Glasgow.