



EEXCESS: Tools for Museum Documentation

Gordon McKenna, Collections Trust

7. Tagung zum Sammlungsmanagement, Görlitz
16th June 2016

Basics

- **EEXCESS** = Enhancing Europe's eXchange in Cultural Educational and Scientific reSources
- Part of **FP7** (7th Framework Programme for Research and Technological Development)
- Intended outcome: “***Open and extendable platforms for building services that support use of cultural resources for research and education***”
- Budget: **€6.932.637** (€5.349.856 from EC)
- Length: **42 months** (Starting in February 2013)



The Partners



Joanneum Research [Co-ordinator] (Austria)



University of Passau (Germany)



Know-Center (Austria)



National Institute of Applied Sciences (France)



German National Library of Economics (ZBW) (Germany)



Bit media (Austria)



Archäologie und Museum Baselland (Switzerland)



Collections Trust (United Kingdom)



Mendeley (United Kingdom)



Wissenmedia (Germany)



+ Europeana [sub-contractor]

Objectives - Framework

To reveal and interconnect the treasures of European culture, science and education – Long tail

- **Enrichment of content** – By developing new technologies to enrich **existing dissemination channels** and **content creation processes**
- **Personalised recommendation** – Addressing need for a dynamic, **contextualised delivery of results** based on the qualifications and preferences
- **Privacy preservation** – Private data under **full user control**. Information stored on the user's device (instead of a central server), submitting minimal necessary data to the recommender system. **Prior and express permission** of users and anonymised data

Taking Content to the User, not User to the Content



Content creation tools

Browser Extension for Google Chrome (Wikipedia Butler)

- Automatic **recommendations** from cultural and scientific databases (e.g. Europeana)
- Surfing the internet on your **familiar websites** (e.g. Wikipedia)
- Wikipedia editors' **'Butler'**
- See: <http://eexcess.eu/results/chrome-extension>

WordPress Plugin

- **Recommendations** and **citations** (standard forms)
- See: <http://eexcess.eu/results/wordpress-plugin>

Google Docs Plugin

- **Recommendations** and **citations** (standard forms)
- See: <http://eexcess.eu/results/google-docs-plugin>

Moodle Plugin

- **Recommendations** and **citations** (standard forms)
- See: <http://eexcess.eu/plugin-for-moodle>

CMS Integration



W Ada Lovelace - Wikipedia x Chrome Web Store - EE/ x Erweiterungen x U-Ausschuss zum Atomk x ASV Aktive und passive Sterb x Digitale Bibliothek - Mün x Zur Geschichte der Sterb x Mate choice in giant pan x

https://en.wikipedia.org/wiki/Ada_Lovelace

Lovelace believed that intuition and imagination were crucial to effectively applying mathematical and scientific concepts. She valued metaphysics as much as mathematics, viewing both as tools for exploring "the unseen worlds around us."

Death [edit]

Lovelace died at the age of 36 – the same age that her father had died – on 27 November 1852,^[41] from uterine cancer probably exacerbated by bloodletting by her physicians.^[42] The illness lasted several months, in which time Annabella took command over whom Ada saw, and excluded all of her friends and confidants. Under her mother's influence, she had a religious transformation and was coaxed into repenting of her previous conduct and making Annabella her executor.^[43] She lost contact with her husband after she confessed something to him on 30 August which caused him to abandon her bedside. What she told him is unknown.^[44] She was buried, at her request, next to her father at the Church of St. Mary Magdalene in Hucknall, Nottinghamshire.

Work [edit]

Throughout her life, Lovelace was strongly interested in scientific developments and fads of the day, including phrenology^[45] and mesmerism.^[46] After her work with Babbage, Lovelace continued to work on other projects. In 1844 she commented to a friend Woronzow Greig about her desire to create a mathematical model for how the brain gives rise to thoughts and nerves to feelings ("a calculus of the nervous system").^[47] She never achieved this, however. In part, her interest in the brain came from a long-running pre-occupation, inherited from her mother, about her 'potential' madness. As part of her research into this project, she visited the electrical engineer Andrew Crosse in 1844 to learn how to carry out electrical experiments.^[48] In the same year, she wrote a review of a paper by Baron Karl von Reichenbach, *Researches on Magnetism*, but this was not published and does not appear to have progressed past the first draft.^[49] In 1851, the year before her cancer struck, she wrote to her mother mentioning "certain productions" she was working on regarding the relation of maths and music.^[50]

Lovelace first met Babbage in June 1833, through their mutual friend Mary Somerville. Later that month Babbage invited Lovelace to see the prototype for his Difference Engine.^[51] She became fascinated with the machine and used her relationship with Somerville to visit Babbage as often as she could. Babbage was impressed by Lovelace's intellect and analytic skills. He called her *The Enchantress of Numbers*. In 1843 he wrote of her:

Forget this world and all its troubles and if possible its multitudinous Charlatans—every thing in short but the Enchantress of Numbers.^[52]

During a nine-month period in 1842–43, Lovelace translated the Italian mathematician Luigi Menabrea's article on Babbage's newest proposed machine, the Analytical Engine. With the article, she appended a set of notes.^[53] Explaining the Analytical Engine's function was a difficult task, as even other scientists did not really grasp the concept and the British establishment was uninterested in it.^[54] Lovelace's notes even had to explain how the Engine differed from the original Difference Engine.^[55] Her work was well received at the time; the scientist Michael Faraday described himself as a supporter of her writing.^[56]

The notes are around three times longer than the article itself and include (in Section G^[57]), in complete detail, a method for calculating a sequence of Bernoulli numbers with the Engine, which would have run correctly had the Analytical Engine been built (only his Difference Engine has been built, completed in London in 2002)^[58] Based on this work Lovelace is now widely considered the first computer programmer^[1] and her method is recognised as the world's first computer program.^[59]

Section G also contains Lovelace's dismissal of artificial intelligence. She wrote that "The Analytical Engine has no pretensions whatever to originate anything. It can do whatever we know how to order it to perform. It can follow analysis; but it has no power of anticipating any analytical relations or truths." This objection has been the subject of much debate and rebuttal, for example by Alan Turing in his paper "Computing Machinery and Intelligence".

Lovelace and Babbage had a minor falling out when the papers were published, when he tried to leave his own statement (a criticism of the government's treatment of his Engine) as an unsigned preface—which would imply that she had written that also. When Taylor's *Scientific Memoirs* ruled that the statement should be signed, Babbage wrote to Lovelace asking her to withdraw the paper. This was the first that she knew he was leaving it unsigned, and she wrote back refusing to withdraw the paper. The historian Benjamin Woolley theorised that, "His actions suggested he had so enthusiastically sought Ada's involvement, and so happily indulged her ... because of her 'celebrated name'."^[60] Their friendship recovered, and they continued to correspond. On 12 August 1851, when she was dying of cancer, Lovelace wrote to him asking him to be her executor, though this letter did not give him the necessary legal authority. Part of the terrace at Worthy Manor was known as *Philosopher's Walk*, as it was there that Lovelace and Babbage were reputed to have walked while discussing mathematical principles.^[61]

Main Topic

First computer program [edit] **Keywords**

In 1840, Babbage was invited to give a seminar at the University of Turin about his Analytical Engine. Luigi Menabrea, a young Italian engineer, and the future Prime Minister of Italy, wrote up Babbage's lecture in French, and this transcript was subsequently published in the *Bibliothèque universelle de Genève* in October 1842. Babbage's friend Charles Wheatstone commissioned Lovelace to translate Menabrea's paper into English. She then augmented the paper with notes, which were added to the translation. Lovelace spent the better part of a year doing this, assisted with input from Babbage. These notes, which are more extensive than Menabrea's paper, were then published in Taylor's *Scientific Memoirs* under the initialism AAL. In 1843, more than a century after her death, Lovelace's notes on Babbage's Analytical Engine were republished. The engine has now been recognised as an early model for a computer and her notes as a description of a computer and software.^[61]

Lovelace's notes were labelled alphabetically from A to G. In note G, she describes an algorithm for the Analytical Engine to compute Bernoulli numbers. It is considered the first algorithm ever specifically tailored to implementation on a computer, and Ada has often been cited as the first computer programmer for this reason.^{[62][63]} The engine was never completed so her code was never tested.^[64]

Query crumbs

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Result Indicator

30 results

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Charles Babbage
main topic

Federico Luigi, Conte Menabrea x Algorithm x Bernoulli number x Ada (programming language) x Charles Wheatstone x University of Turin x Italy x Officer (armed forces) x Prime minister x Computer program x Italian language x English language x Acronym x Programmer x French language x

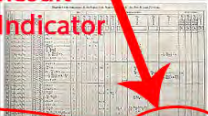
Drag and Drop keywords to change the main topic; click to (de)activate



Painting of Ada Lovelace at a piano, 1852 by Henry Phillips. While she was in great pain at the time, she sat for the painting as Phillips's father, Thomas Phillips, had painted Ada's father, Lord Byron.



Portrait of Ada by British painter Margaret Sarah Carpenter (1836)



30 results

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Active Paragraph

Main Topic

Result Indicator



W Ada Lovelace - Wikipedia x Chrome Web Store - EEV x Enveiterungen x U-Ausschuss zum Atomk x 538 Aktive und passive Sterbe x Digitale Bibliothek - Mün x Zur Geschichte der Sterbe x Mate choice in giant pan x

https://en.wikipedia.org/wiki/Ada_Lovelace

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Lovelace's notes were labelled alphabetically from A to G. In note G, she describes an algorithm for the Analytical Engine to compute Bernoulli numbers. It is the first implementation on a computer, and Ada has often been cited as the first computer programmer for this reason.^[62]^[63] The engine was never completed so her notes are the only program ever written for it.

Conceptual leap [edit]

In her notes, Lovelace emphasised the difference between the Analytical Engine and previous calculating machines, particularly its ability to be programmed to perform any task that could be described in terms of logic.

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Doomenikroning van Christus	Analysis of Sialic acid and Sphingomyelin of Brain of Mice by Using Spectrophotometer and Hplc
Geseling van Christus	<div style="display: flex;"> <div style="width: 50%; text-align: center;">  Portrait of Ada Lovelace </div> <div style="width: 50%; text-align: center;">  Ada, Countess of Lovelace (1815-1852) </div> </div>
Kruisoprichting	
Charles Babbage: The Man Who Saw the Future	Relocation of the power transmission and distribution division of a multinational

Charles Babbage Brain x Cancer x Fad x Nervous system x Mathematical model x Phrenology x Calculus x Nerve x Conspiration x Electrical engineering x Artificial intelligence x

Drag and Drop keywords to change the main topic; click to deactivate

WordPress dashboard interface showing the 'Edit Post' screen for a post titled 'Promoting Economic Mobility'.

Header: Demos - MICS | New | View Post | Howdy, Atif Latif

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- Text:** The topic of promoting economic mobility deals with the stagnating socio-economical movements within the US-American society, and the different aspects bearing responsibility for it. The factors of genetics, parents, economic background, culture, schooling and environmental circumstances count among them. For adding a comprehensive attitude to the discussion, we start by exposing these factors and put them into association to each other.
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The topic of promoting [economic mobility](#) deals with the problematic nature of the stagnating socio-economical movements within the US-American society, and the different aspects bearing responsibility for it. The factors of genetics, parents, economic background, culture, schooling and environmental circumstances count among them. For adding a comprehensive attitude to the discussion, we start by exposing these factors and put them into association to each other.

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All Media Cultural Scholarly

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- EB** Moving towards estimation lifetime intergenerational economic mobility in the UK
- EB** Málleova : a story of upward economic mobility
- AM** Overlooked insights from mobility instances? Reconsider our understanding of mobility processes
- A cross-section analysis of the demand for mobile homes in Florida / by Max Holt Strader, Jr.**
- Wage Inequality and Wage Mobility in Europe**
- EB** Economic mobility in Europe and Central Asia : exploring patterns and uncovering puzzles
Substantial upward economic mobility in the majority of countries in Europe and Central Asia in the 2000s...
- EB** Moving Towards Estimating Lifetime Intergenerational Economic Mobility in the UK
Estimates of intergenerational economic mobility that use joint in time measures of income and earnings...
- EB** Nonlinear Estimation of Lifetime Intergenerational Economic Mobility and the Role of Education:
Previous studies of intergenerational income mobility have typically focused at on estimating persistence...
- EB** Economic mobility in Europe and Central Asia : exploring patterns and uncovering puzzles

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Visual Text

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The topic of promoting economic mobility^[1] deals with the problematic nature of the stagnating socio-economical movements^[2] within the US-American society, and the different aspects bearing responsibility for it. The factors of genetics, parents, economic background, culture, schooling and environmental circumstances count among them. For adding a comprehensive attitude to the discussion, we start by exposing these factors and put them



into association to each other.

[1] (2014). Moving towards estimation lifetime intergenerational economic mobility in the UK. Retrieved from <http://www.econbiz.de/Record/10010408825>

[2] (2012). Negative Assimilation : how immigrants experience economic mobility in Japan. Retrieved from <http://www.econbiz.de/Record/10009683479>

Word count: 0

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EB Moving towards estimation lifetime intergenerational economic mobility in the UK



Situation Report: Czechoslovakia, 28 September 1982



Spatial patterns of technology transfer and measurement of its friction in the geo-economic space



EB Moving Towards Estimation Lifetime Intergenerational Economic Mobility in the UK
Estimates of intergenerational economic mobility that use point in time measures of income and earnings...





Thank You!

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