

DECENTRALISING POWER: HOW WE WANT TO KEEP COLLECTOR ETHICAL

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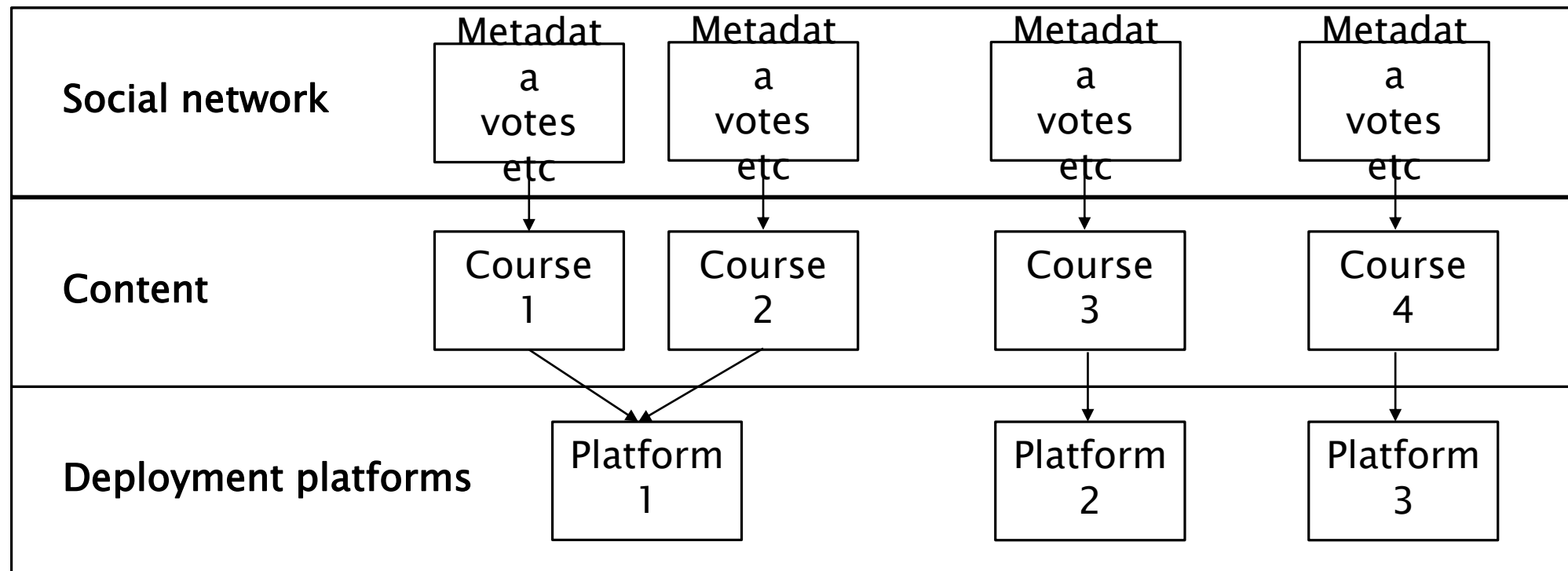
enetCollect WG3 & WG5 meeting, Leiden, 24–25 October 2018

OUTLINE

- Where the CALlector architecture is now
- Addressing the ethical issues

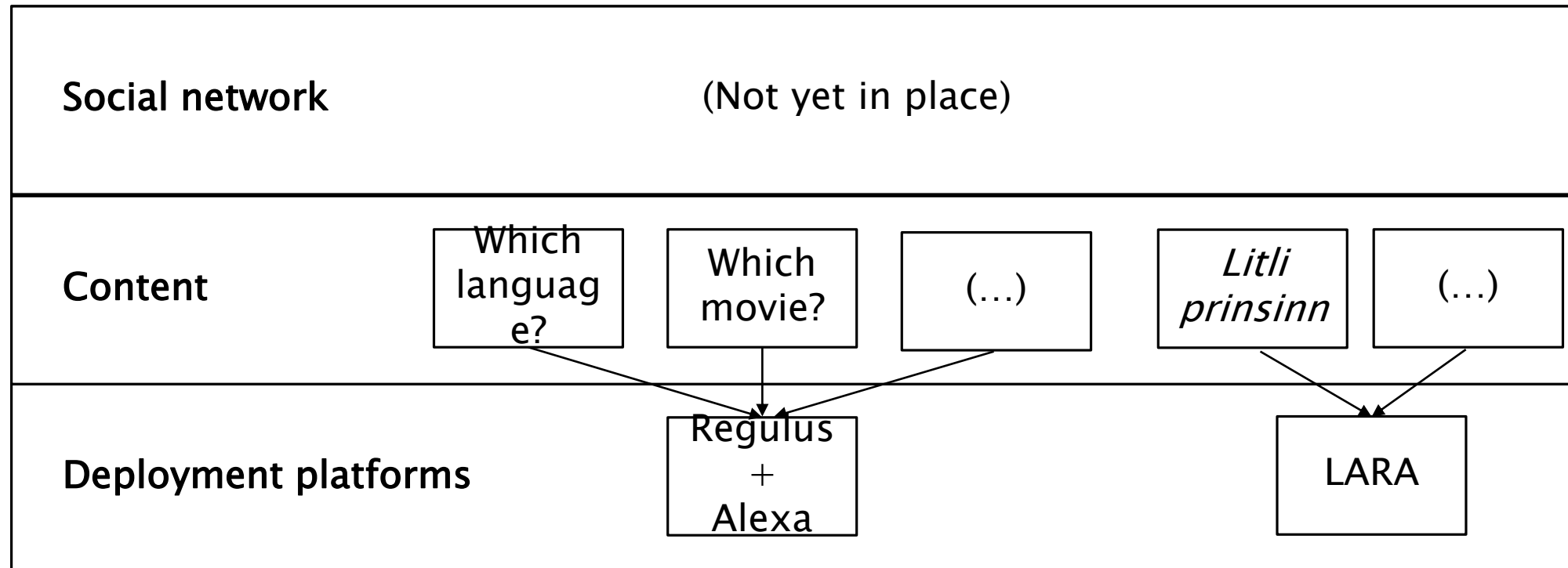
CALLECTOR ARCHITECTURE

- Basic idea: social network for creating and using CALL content



INITIAL INSTANTIATION OF ARCHITECTURE

- Basic idea: social network for creating and using CALL content



REGULUS/ALEXA CONTENT

Section of “Quel Pokémon”, Alexa game designed by two seven year olds

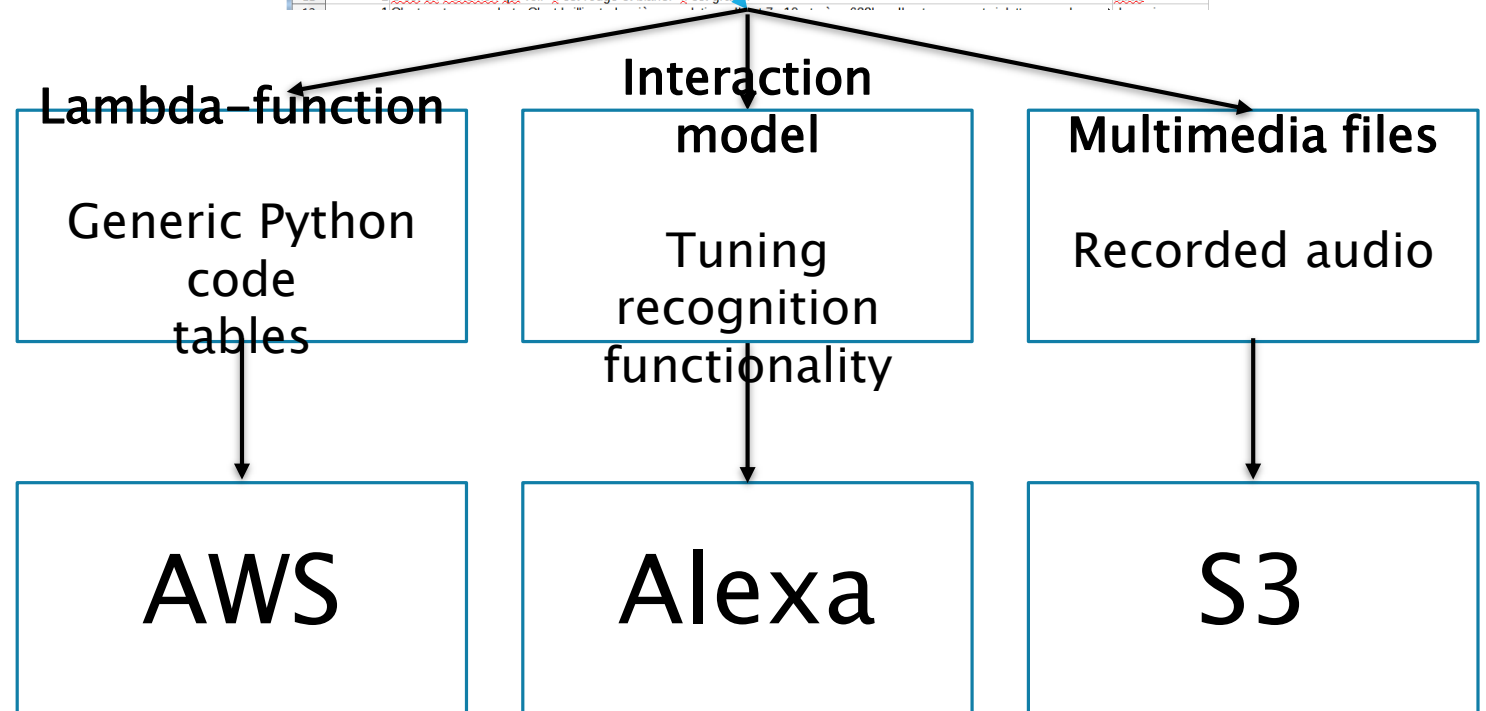
	A	B	C
1	Metadata	CourseType	<u>alex_a_text</u>
2	Metadata	Identifiaer	<u>quel_pokemon</u>
3	Metadata	Invocation	<u>quel pokémon</u>
4	Metadata	L2	French
5	Metadata	L1	French
6	Metadata	HelpStrategy	3Hints
7	Section	<u>pokémon</u>	
8		1 <u>Quel Pokémon est en metal, avec des yeux rose, à stage 2 ?</u>	<u>metagross</u>
9		1 <u>Il est orange, feu sur sa queue, des griffes à stage 1.</u>	<u>charmeleon</u>
10		1 <u>Un type eau, un poisson avec une couronne sura sa tête, les lèvres rose et il est rouge. Il a un moustache jaune.</u>	<u>magikarp</u>
11		1 <u>C'est un Pokémon qui vol. Il est rouge et blanc. Il est grand.</u>	<u>latias</u>

REGULUS/ALEXA PLATFORM

Compiler

Runtime
system
(Amazon)

A	B	C
1 Metadata	CourseType	alex_text
2 Metadata	Identifier	quel_pokemon
3 Metadata	Invocation	quel pokémon
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LARA CONTENT

Section of *Litli prinsinn*

Þegar ég var sex ára sá ég einu sinni stórkostlega mynd í bók um frumskógin sem hét "Sannar sögur". Hún sýndi kyrkislöngu sem var að gleypa villidýr. Hér er eftirlíking af myndinni.

Í bókinni var sagt: "Kyrkislöngur gleypa bráðina í heilu lagi án þess að tyggja hana. Síðan geta þær ekki hreyft sig og sofa í hálf tón á miltunni."

LARA FUNCTIONALITY

Marked-up version of *Litli prinsinn*

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Í bókinni var sagt: "Kyrkislöngur gleypa bráðina í heilu lagi án þess að tryggja hana. Síðan geta þær ekki hreyft sig og sofa í hálf tón á mæltunni."

Ég hugsaði þá mikið um ævintýri frumskóganna og mér tókst sjálfum, með litblýanti, að teikna fyrstu myndina mína. Það var mynd eitt. Hún er svona:

Ég sýndi fullorðna fólkinu listaverkið og spurði hvort það væri hrætt við myndina.

þegar (77 occurrences)

- En ég hefi þegar hitt konung sem...

Það er til að geta heilsað þegar mér er fagnað.

- Úr því að ég á heima á einni þeirra, og úr því að ég hlæ á eina þeirra, þá verður það fyrir þig eins og alla stjórnurnar hlæi þegar þú horfir á himininn á kvöldin.

Þegar þú finnur gimstein sem enginn á, átt þú hann.

Þegar hádegi er í Bandaríkjunum er sólin að setjast í Frakklandi.

- Þeir koma þegar aftur ?

SOCIAL NETWORK

- Doesn't exist yet
- Examples of functionalities we want to support
 - Metadata
 - Indexing
 - Likes
 - Comments
 - (...)

ETHICAL ISSUES: META-PRINCIPLE

- Although we probably **won't** succeed, plan for an ethical outcome in the case where we **do** succeed
- Ethical issues are interesting in the case where we succeed
- If people don't conform to this meta-principle, all successful projects will be unethical
- (Maybe a corollary of Kant's Categorical Imperative?)

ETHICAL ISSUES

- We should fulfil our ethical obligations
- Parties we have obligations to
 - Ourselves
 - Swiss National Science Foundation (funder)
 - Geneva University
 - External system-level collaborators
 - Content creators
 - Content users

OBLIGATIONS TO OURSELVES

- One of us (Hanieh) needs to get a PhD out of the project
- All of us need to publish
- We would like to keep our jobs

OBLIGATIONS TO FUNDER

- We need to do the work described in the proposal
- We need to publish

OBLIGATIONS TO GENEVA UNIVERSITY

- We need to leverage the results of the project to bring in money
- We need to publish
- We need to create tools useful for teaching

OBLIGATIONS TO EXTERNAL SYSTEM-LEVEL COLLABORATORS AND CONTENT CREATORS

- We need to provide stable, maintainable hosting for content
- We need to provide stable, maintainable hosting for user data
- We need to respect the system-level collaborators' and content constructors' IP rights
- We need to respect the system-level collaborators' and content constructors' rights as members of the social network

OBLIGATIONS TO CONTENT USERS

- We need to provide stable, maintainable hosting for content
- We need to provide stable, maintainable hosting for user data
- We need to respect the content users' rights as members of the social network

SCENARIO 1: TYPICAL ACADEMIC PROJECT

- Keep haphazardly extending system to support
 - PhD thesis
 - Writing of papers
 - Data collection
 - Some users in enetCollect etc
- Write some basic user documentation
- Messy research code which only one person understands
- A year or two after funding runs out, infrastructure stops working

IF WE WANT TO MAKE SCENARIO 1 HAPPEN...

- It will happen by itself if we don't do anything special

NEGATIVES AND POSITIVES OF SCENARIO 1

Negatives

- System-level collaborators and content creators will feel betrayed
- Content users will feel disappointed
- Swiss National Science Foundation will feel (mildly) disappointed

Positives

- We will have less work to do
- Short-term, we will get more published

SCENARIO 2: MOVE TO COMMERCIAL PROJECT

- Careful extension of system to support
 - Stable and useful platform
 - Substantial and growing social network
 - Papers/demos at conferences to increase visibility
 - (PhD thesis)
- Proper user documentation
- Well-maintained code moved into a private repository
- Goal: sell network to whoever's willing to buy it

IF WE WANT TO MAKE SCENARIO 2 HAPPEN...

- Prioritise growth of social network
 - Worth of site mostly depends on number of users
- Make it easy to create content
 - Important to have tools to simplify content creation process
 - Easiest approach: integrate with Alexa “template” mechanism
- Make site usage addictive
 - More gamification: likes, comment threads, leaderboards etc
- Make sure that content hosting is reliable
 - Deploying on Alexa minimizes downtime

NEGATIVES AND POSITIVES OF SCENARIO 2

Negatives

- System-level collaborators and content creators will feel betrayed
- If it doesn't work, we will feel disappointed

Positives

- If it does work, we might get rich
- University likes commercialisation
- Funder likes commercialisation
- Users will be negative about changes but pleased the site still exists

SCENARIO 3: MOVE TO OPEN SOURCE PROJECT

- Careful extension of system to support
 - Stable and useful platform
 - Substantial and growing social network
 - PhD thesis
 - Papers/demos at conferences
- Proper user documentation
- Well-maintained code kept as open source
- Goal: transform into viable, self-maintaining open source project

IF WE WANT TO MAKE SCENARIO 3 HAPPEN...

- Prioritise long-term usability, independence, decentralisation
- Make sure that code is portable
 - Should be able to run on several platforms: Alexa, Google Home, own web platform
 - Runtime Python code should be easy to port
 - Compiler is currently in Prolog, needs to be moved to Python
- Make sure that code is well-documented and maintainable
 - Need to be more serious about documentation, code reviews etc
 - Need to have multiple people involved in maintaining code
- Design a distributed social network
 - Hosted on multiple servers, not all on one server controlled by us

NEGATIVES AND POSITIVES OF SCENARIO 3

Negatives

- If it doesn't work, we will feel disappointed
- University may feel disappointed → our jobs may be less secure

Positives

- System-level collaborators and content creators will be happy
- Users will be happy
- Funder will be happy

SUMMARY OF ETHICAL TRADEOFFS

- Preferences
 - Typical academic scenario is the least good outcome, but also the least challenging
 - Open source scenario is better for **system-level collaborators and content developers**
 - Commercialisation scenario is better for **university**
 - Commercialisation scenario is better for **us** (if we are thinking selfishly)
- Tension between open source scenario and commercialisation scenario
- It is in principle ethically right to aim for the open source solution
 - “Greatest good of the greatest number”
- Short-term incentives favour default and commercialisation solutions

THANK YOU!

