The Bureaucratic Library: Agent for Change

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CAPAL 15: Academic Librarianship & Critical Practice

Presentation overview

- Libraries as institutions of change
- Using Life Cycle Analysis (LCA) to develop agency
- Examples of LCA
- Closing thoughts and next steps

Libraries as Institutional Agents

- Variables
  - Institution?
  - Agency?
  - ✧Both

- Neo-Institutional Theory:
  - Institutions are both institutions and agents at the same time - contructivist
  - A series of norms, practices, rules and behaviours that condition how we make choices
  - But also: generators of independent ideas
  - Interaction between these two factors – path dependency - how we change choices through institutional behaviour, and indeed how institutions and ideas arise, change and die over time

Library Agency

- Traditional Agency (The 'competency trap' – sort of)
  - Agency linked to content and professional practice
  - Value linked to 'neutrality' – a denial |constriction of active agency
  - Outcomes – library specific

- Institutional Agency (New forms of institutional competency)
  - Neutrality is norm to be overtly used and reinforced: trust and goodwill
  - Choices made to reinforce paths and organizational capacity, including normative choices
  - Agency linked to organizational behaviour supporting professional competencies (examples next slide)
  - Outcomes focused on organizational development: larger institutional capacity and/or functions; creating values (norms) expressed through new metrics and accountabilities
  - Organization learns and grows

Examples of Institutional Agency

- What do we mean by do with regard to the library as an institutional agent?
  - Purchase goods and services
  - Contribute to budgetary planning
  - Hire labour
  - Participate in larger organization wide goals setting and planning
  - Draw up contracts
  - Organizational goal setting and prioritization
  - Areas of special competency and/or weighted influence (for example budget size on a particular budget line; lead unit on a particular file; professional area of expertise)
  - And yes, specific service functions regarding information, literacy, Education, civics, government information, etc.

✧Library as consumer, agenda setter, autonomous agent, policy maker, employer

The Green Case: Environment and Agency in Social Capital

- Growing body of literature looking at libraries as agents for social capital in important areas, such as education, socio-economic welfare and sustainable development
  - Social capital: The ability to develop capacity for social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit
  - Government agencies and social capital are related: social capital is increased by efficient political institutions and public policies, and vice versa
- Social capital agency in the green example limited to professional competencies and/or cooperation with other agencies
  - 'being green' (buildings, recycling)
  - 'hosting green' (events, other agency cooperation)
  - 'teaching green'(program development)
  - 'green collections' (commitment to information on sustainable development)
- Literature does not formally address developing organizational capacity and/or normative change within the library's host institution.

Adding in the Institutional Approach

- Social capital literature does not formally address developing organizational capacity and/or normative change within the library's host institution
- Institutional approach for developing a more resilient core for green programming would add in:
  - Importing and building on the norms of sustainable development
  - Use areas of library competencies to carry institutional learning
  - Examining the library's path as an agent in order to bring environmental calculation
  - Creating evidence based arguments for changes of behaviour, metrics, and structures and reporting in order to green
  - Seek to create and establish relevant structures based on proven need

✧Leadership in development of organizational capital

✧Incremental but effective change

LCA as a way to develop professional and institutional agency

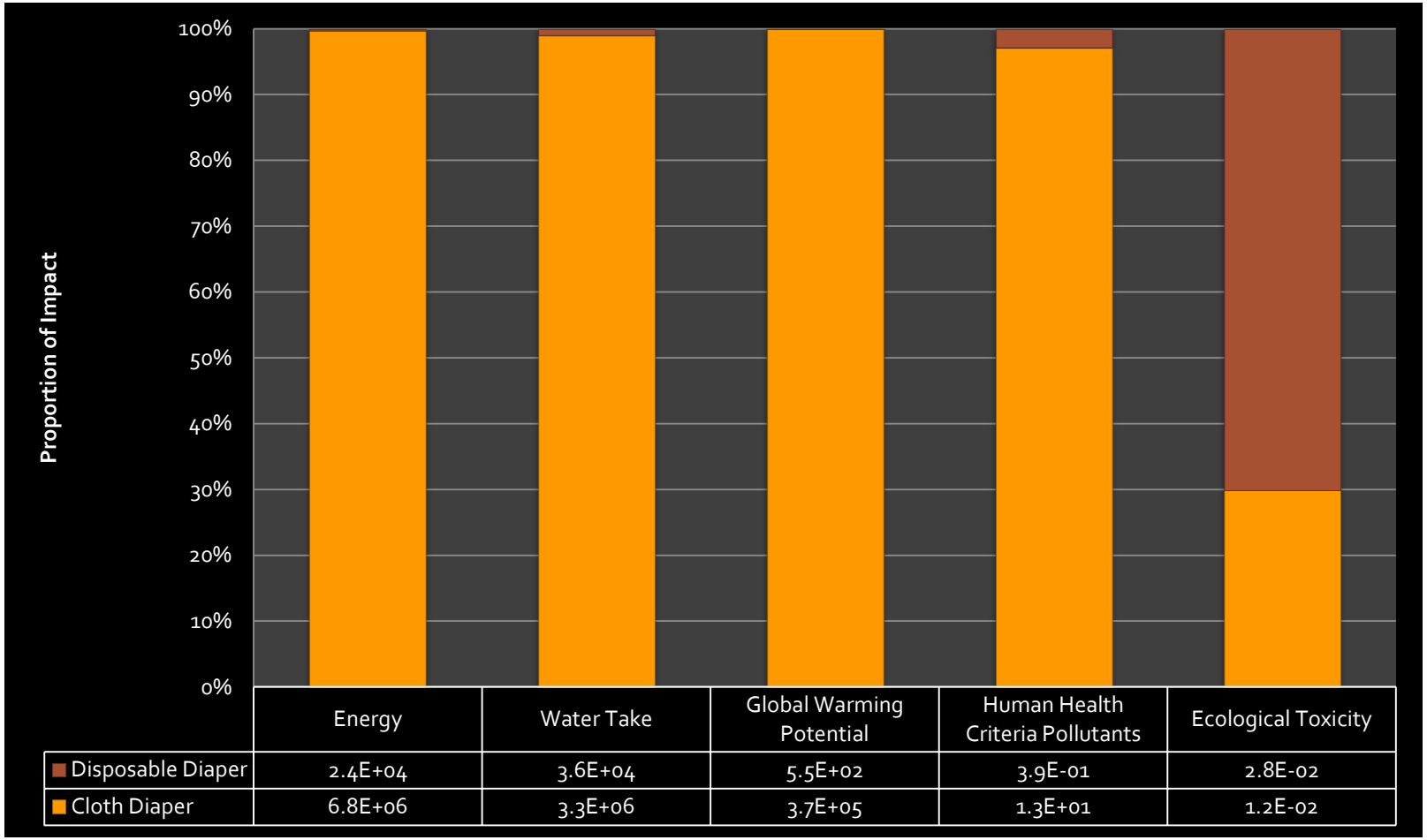
- LCA (Life Cycle Assessment) allows as a product, system, or service to be compared to like products, systems, or services
- Use adds organizational capacity and new metrics: "organizational capital"
- Accuracy is dependent upon availability of data and degree of localization
- Utility is dependent upon degree of agency and ability to respond to outcomes
  - Response can range from public relations to institutional change

Example High Level LCA's

- Diapers – Assumptions and Data
- Levi's Jeans – impact and public relations
- LCA – data – details and UN standards for social justice
- Ebooks – use, services, licensing, and depth
  - Limits of LEED building, greening, and a move to depth

Example High Level LCA's

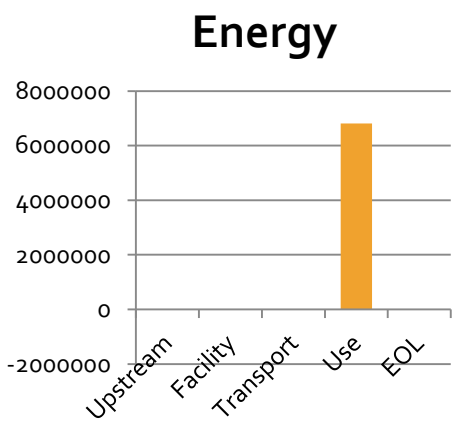
- Diapers – Assumptions and Data

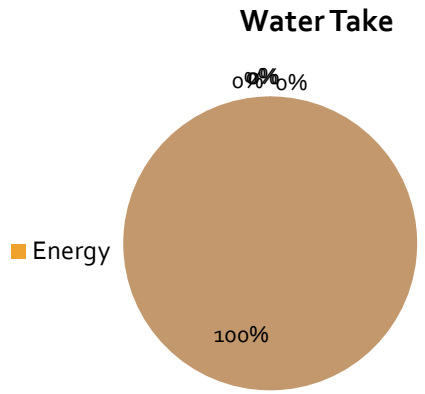


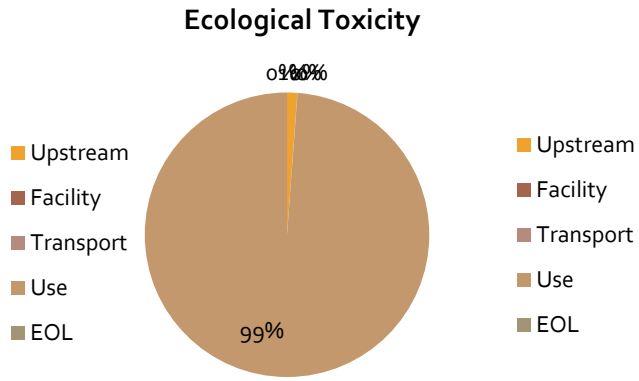
	Energy	Water Take	Global Warming Potential	Human Health Criteria Pollutants	Ecological Toxicity
Disposable Diaper	2.4E+04	3.6E+04	5.5E+02	3.9E-01	2.8E-02
Cloth Diaper	6.8E+06	3.3E+06	3.7E+05	1.3E+01	1.2E-02

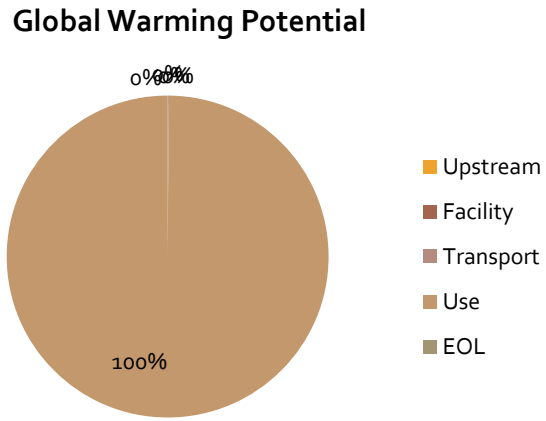
Example High Level LCA's

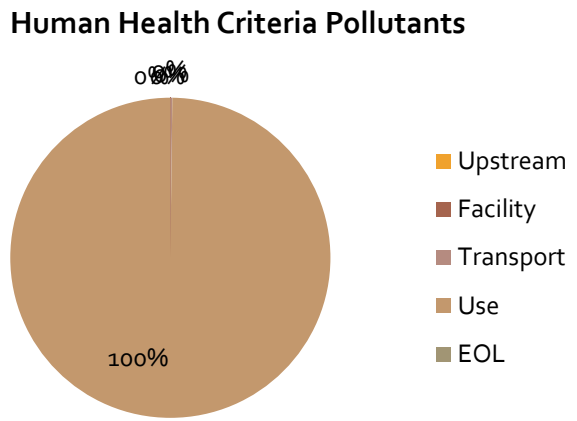
- Diapers – Assumptions and Data - Cloth





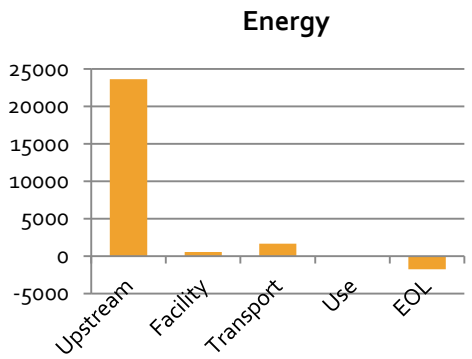


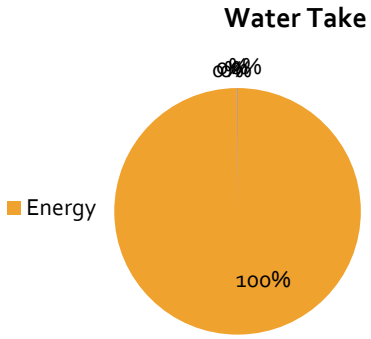


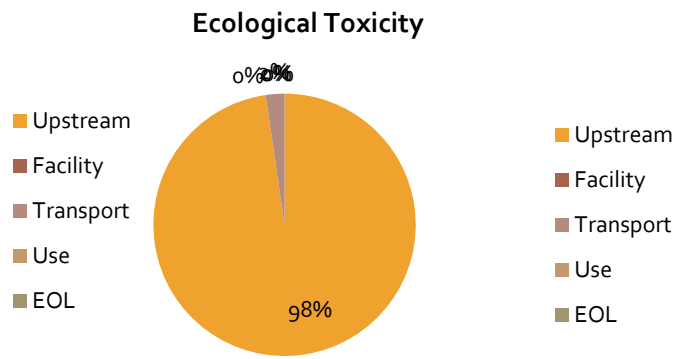


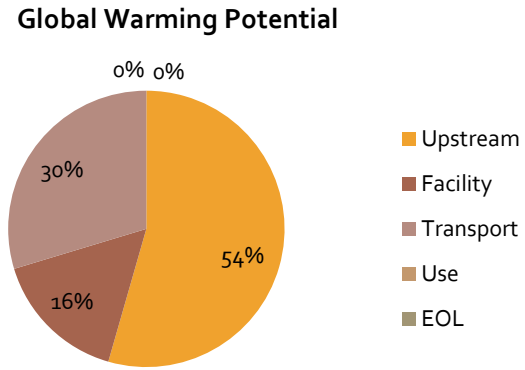
Example High Level LCA's

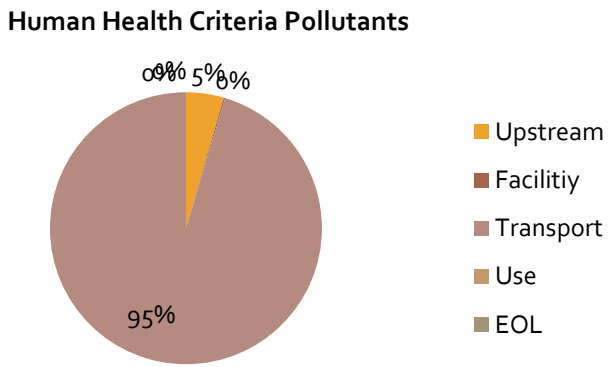
- Diapers – Assumptions and Data - Disposable











Example High Level LCA's

- LCA – data – details and UN standards for social justice
  - Guidelines for Social Life Cycle Assessment of Products
  - http://www.unep.org/publications/search/pub_details_s.asp?ID=4102
- Stakeholder Categories: workers, local community, society, consumers, value chain actors
- Impact Categories: human rights, worker conditions, health and safety, cultural heritage, governance, socio-economic repercussions
- Ebooks – use, services, licensing, and depth
  - Limits of LEED building, greening, and a move to depth

Example High Level LCA's

- LCA – data – details and UN standards for social justice
- Worker: freedom of association and collective bargaining, child labour, fair salary, working hours, forced labour, discrimination, health and safety, social benefits, social security
- Consumer: health & safety, feedback mechanism, consumer privacy, transparency, end of life responsibility
- Local community: access to material resources, access to immaterial resources, delocalization and migration, cultural heritage, safe & healthy living conditions, respect of indigenous rights, community engagement, local employment, secure living conditions
- Society: public commitments to sustainability issues, contribution to economic development, prevention & mitigation of armed conflicts, technology development, corruption.
- Value chain actors: fair completion, promoting social responsibility, supplier relationships, respect of intellectual property rights.

Academic Press Print Monographs vs. Digital Monographs Product System Description

Academic Press Print Monographs

A system that (primarily) utilizes high acid wood pulp based paper, glues, and inks into finished print monographs.

Produced in relatively small print runs (unlike popular press items) to meet estimated user demand generally avoiding excess volumes that then need to be disposed of.

Primarily purchased by institutional buyers, such as libraries, as opposed to individuals and can be used by multiple users over the life time of the collection.

The necessity of site storage, multiple branches, and inter library loan means most volumes will be shipped several times during their life time. Through wear and culling due to limited space about 50% to 75% of the titles will end their life after 15 to 20 years in a land fill (only a small proportion would be recycled).

Academic Press Print Monographs vs. Digital Monographs Product System Description

- Academic Press Digital Monographs (or ebooks)

Have similar intellectual inputs into their creation as print monographs, and often have print equivalents (so the same content is produced in both forms).

Generally created and then duplicated over multiple servers: the publishers, ebook service provider, institutional subscriber, and if allowed by the license user PCs. Each book will have at least one digital interface created to access the item.

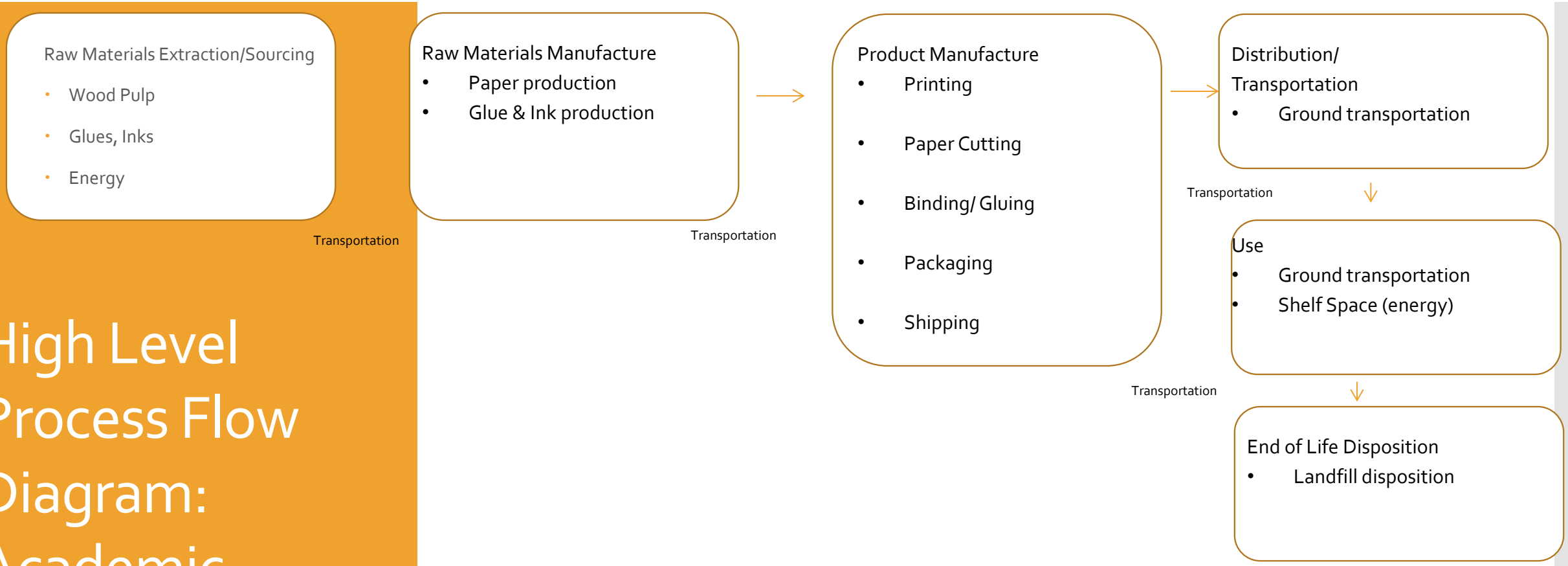
Distributed to users over an institutional we service and accessed by user most often using desktop computes or laptops. In the majority of cases they can not be downloaded by the user to be read on e-readers. Their use tends to be restricted to reading from a PC or printing through desktop printing services.

Most desktop printed copies are ephemeral will find their way to recycling at an institution. Both book types require ICT for users to find them, but digital copies require it also for use.

Possible functional unit

- Functional Unit – Single Academic Monograph – approximately 267 pages in length (average length)
- Assumptions
  - Similar use patron
  - Licenses will prevent downloading of digital book to e-reader
  - Users will print out up to one-third of the digital book

High Level Process Flow Diagram: Academic Press Print



High Level Process Flow Diagram: Academic Press Digital

Raw Materials Extraction/Sourcing

- Energy

Transportation

Raw Materials Manufacture

- Basic ICT infrastructure

Product Manufacture

- Server space
- Interface development (energy and ICT infrastructure)

Distribution/ Transportation

- Electronic – energy use

Use

- PC manufacture and use
- Desktop printing

End of Life Disposition

- On server in perpetuity
- Print copies recycled

The central event of the 20th Century is the overthrow of matter. In technology, economics, and the politics of nations, wealth – in the form of physical resources – has been losing value and significance. The powers of mind are everywhere ascendant over the brute force of things. (Magna Carta for the Knowledge age, Eshter Dyson, et al. 1994)

The increased amount of digital material has an environmental impact as server farms get larger and use more power. Google's server warehouse in Oregon in 2006 was using as much power as a city of 200,000 people (Greening Media pg. 29)

E-waste contains more than 1000 different substances, many of which are toxic , such as lead, mercury, arsenic, cadmium, selenium, hexavalent chromium, and flame retardants (Widmer et al., 2005)
About 70% of the heavy metals (mercury and cadmium) in US landfills come from electronic waste and 40% lead in landfills come from electrical and electronic equipment (Widmer et al., 2005)
22% of the yearly world consumption of mercury is used in electronics manufacture (Realff, Raymond et al., 2004)
http://www.griffith.edu.au/engineering-information-technology/e-waste-research-group/facts-figures

What LCA's don't' cover:
- they gives us a way to know a process, but not what to do about it.

That our current technological practice is "technique of falsification" to the extent that it has "reduced our ability to truly know the world. Information is often superficial since it appears in decontextualized, easily digestible bytes. The medium that increases our access to knowledge thus at the same time decreases our grasp of the world's significance. Moreover, on the level of consciousness we see the gradual diminishing of attention… It is, perhaps, the very superficiality of our knowing that best explains the irony that today we have more information about the natural world functions than ever before, yet also are guilty of its most widespread destruction…Should not the effect of our knowing lead to understanding, appreciation, affection, and care? Should it not train our minds into the sympathetic faculty that better (more honestly) places itself into alignment with its object?"

(Norman Wirzba,The Paradise of God: Renewing Religion in an Ecological Age, 2003, pg80-81)

Conclusion

"…to produce as much as possible regardless of the ecological costs and perhaps even if it is not profitable to the producer…have not paid much attention to the long-term ecological and social effects of the enterprise because the immediate utilitarian benefit of production was so apparent."

Robert L. Zimdahl, *Agriculture's Ethical Horizon* (Elsevier, 2006), pp. 193-194

Biggest change is about our professional responsibility within our organizations or institutions

Primary goal is education, that goal should include everyone, not denying others that same goal.

Don't use technologies that will increase toxicity elsewhere and prevent others from having the same access

Every cloud storage facility is connected to increased uranium mining and coal use.

Climate change affects basic pre-conditions to having access to information

Open Access not a global solution

Displaced persons due to climate change for them ideas around open access, not their largest concern.

Productionist ethic: assumes technology is limitlessly powerful and benign, and would serve if we had a true knowledge based economy and digital utopia – but it fails when everything is still tied to a materiality.