

TALK

Life in the ruins of digital futures. Knowledge infrastructures in late digitisation

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ABSTRACT

Starting from the ritual of creating a website at the beginning of every research project, this talk proposes ruination studies as a lens on “late digitisation”: a moment in which the promises of connectivity regarding knowledge, power, and the material world are confronted with their ruins. Naming these ruins is a first step, followed by asking which parts need shoring, which can be repurposed as spolia, and which are rubble to be cleared. An exploratory probe into the afterlife of websites of digitalisation projects funded by the Research Council of Norway since 2004 finds that most survive as unmaintained archives on institutional servers that can safely be deleted, while robust standardised systems such as the DOI deserve shoring. Facebook pages and WordPress or Wix sites carry a “ruin memory” of past platform moments, and some abandoned domains have been taken over by casino advertising – parasites thriving in the ruins. (abstract prepared with the help of gen AI, the manuscript itself is 100% written “manually”)

Keywords ruination · late digitisation · knowledge infrastructures · project websites · link rot

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“We need a project website!”

There are three things that one does when starting a research project: First, one is re-reading the application text shocked by what was promised, then one hires according to the funding, and then one creates a project website. I started my life as someone who was involved in project management after 2000, so at least academically I am a digital native. And as digital natives we learned soon enough that having a website is obligatory. We did not really ask why, but at this time, this question was not asked at all, everything digital was at least new and exciting.

Later, then, reasons *were* given, which ranged from networking to promotion, and not the least to “giving back” by disseminating the findings. With more professional project management and in a new kind of internet, experts were hired to do the websites for us researchers, in the most recent EU project where I worked they were also responsible for “exploitation”, which did not really make sense as there was nothing to exploit. They were then nagging us for “content”, like news or blog texts which we had to send them. In return every project meeting contained a block where said partners reported follower and visitor count, which always

seemed very low to me, but since nobody else reacted, I thought they were fine. Today the website and the news and the blog posts, they are all gone, no trace of the site at all.

We will come back to the question what project websites are good for - spoiler: I use them as a diagnostic here after they have died - but before I will explicate my approach, which is heavily inspired by sociology, environmental humanities, infrastructure studies, and STS more in general. Then I present the findings from an empirical probe into project websites funded by the Norwegian Research Council between 2004 and today, which - hopefully - will allow me to draw out some theoretical and practical gains.

The approach: Ruination studies

Ruination as lens is not new at all, there is a beautiful (and reference-full) summary already 2012. I am not claiming that I add anything to this. Personally, where I come from is a fascination with infrastructures and how they beautifully give regular people the power of gods (fly, see far, move fast, etc) - until they do not. And here, with broken world perspective (Jackson 2014) and the active move from ruins as document of previous violence to ruination as ongoing process (Stoler 2013) in mind I react to a world that is more and more fascinated with the fragility and violence of infrastructures.

Ruined relations

So, ruins and ruination are the counter-image to the polished, well-functioning infrastructures that work through heterogeneous relations as the classics of STS infrastructure studies teach us. The ruins that interest me here are about the dissolution, blockage, and endangerment of infrastructural relations, but with an important modification: relations are not only either there or not, there is a much more complicated temporality and spatiality of relations towards which the “ruin” gestures: What was once a stable relation is still remembered and has still impacts, while the train that binds two regions together marginalises a third one.

More on the “late” in “late digitisation”

In addition to the term “ruin”, the title of this talk contains the term ‘late digitisation’. Let’s first talk about “late”. In 1990s this term was used to remind us that even if modernity was tired and old, we still were not past it, as the postmodernists seemed to claim (Beck 1992; Giddens 1997; Bauman 2000) Instead, late modernity contained modern characteristics on speed, so to speak.

Characteristics of “late”

Specific characteristics - which I think we recognise very well in 2026 - are intensification, but in a weird way, where everyone knows that it is not real, but at the same time cannot see any alternative. Despite the feeling that this surely cannot continue and rampant nostalgia, a tired cynicism is taking hold in the condition of “late” (or “old”, or “high”): everyone knows its promises are hollow, the negative side effects will definitely materialise, but the cost of not continuing seems higher than going straight towards doom.

Why digitisation (and not digitalisation)?

Finally, I have chosen the term digitisation, the transformation of analog to digital signals and signs, not out of conviction but rather to escape the by now huge baggage of the term digitalisation. Here, in line with the relational focus above, I try to constrain my argument to the replacement of analog relations with digital ones. The replacement of “relations” with “connectivity”.

Digital futures

What can we do with these terms? Well, I claim they unfold a research program allowing us to understand the current moment as one in which the promises of “connectivity” are confronted with its ruins. This is the first step to get out of the condition of the “late”: to name the ruins. More specifically these relate to knowledge, power, and the material world. Regarding knowledge the promise of the 1990s was that all humans would be connected with all knowledge. The ruin is that the individual’s privacy became as much an area of extraction as all kinds of knowledge commons. For power, the promise was democracy through unstoppable interactivity (because the internet would route around censorship), the ruin is an unprecedented concentration of power among very few. And regarding materiality, we were promised a post-materialistic liberation from bodies and from scarcity. Instead we got the manosphere and yet another sector which is hungry for cheap and abundant energy.

AI-hype as digitisation’s end game

In light of this, it is easy to see how the current AI-hype is the highest expression of late digitisation as its end game. Now really everything has to be sucked into the digitisation machines (gutting books and disposing of them), making the digital layer even more performative through letting “agents” do whatever they want. That this was connected to promises is still true: tired offers of making our lives even more effective, however, are paired with threats more often than with promises: if you do not join, you will be late and end in the permanent underclass.

From a research program to policy advice

So, what are the potential gains here? First, we should name the ruins, but then, and more importantly, we should identify which parts of the ruins need shoring to be kept from collapsing with potentially tragic consequences for individuals, culture, and society. But then there will also be parts of the ruins that can be repurposed like the “spolia”, selected parts of antique architecture - columns, sculptural decoration, etc. - that were used by medieval builders as part of their buildings. And finally, there will be plenty of opportunities of cleaning out rubble that poses as ruins.

A probe*Research project websites*

The research question for this empirical probe was: “What happens with project websites after the projects are concluded? Are they ruins and if so: What kind of ruins and what can they teach us about digital ruination?”

Previous art

From the literature we know that link rot according to a new study is actually less bad than expected. Garos et al. (2026), who have studied URL persistence in major software engineering publications published between 1971-24, found that 71% of the URLs remained active with an estimated half-life of ca 11 years. Earlier studies have assumed larger rot rates. In what follows we will dive into the specifics of these numbers by looking at what survives.

In a first step I filtered the publicly available dataset of projects funded by the Norwegian Research Council for projects funded with NOK 5 mio or more, related to digitalisation (specific funding programs + “digit*” in the title) and started after 2004 (when the VERDIKT program started) and concluded in 2026. The criteria were chosen based on the assumption that within this group project websites in fact did exist, even if they cannot be found any longer. The point here is not quantitative estimation of rot but shedding light on the afterlife of project websites.

Then I searched for project websites using the LLM GLM 5.3, which is hosted by NTNU/UiO, which used a self-hosted SearxNG meta search engine in a custom, self-hosted harness. Then, I visited a random sample (N=20) of the sites that are hosted by a large research institutions and visited and clicked through all those that are not. I also tried to find the missing websites via the wayback machine, but with very little success.

The analysis is preliminary and exploratory, I am actually quite sure that there are still mistakes in the data set (e.g., institutional blog posts about projects identified as project websites), but the general drift of the results should remain intact after another round of data cleaning.

So, what did I find? The dataset after the filter contained 289 projects. Ca. 70% of these projects have still a project website in 2026. The largest group of still existing websites is today hosted by large research institutions, like universities, large research institutes, such as Sintef, and similar entities.

The sample checked here, shows a clear picture of these websites being archived and not maintained. They are adapted to the institution's web design and contain outdated news ("Now hiring! 2016") and other than that exclusively data that exists somewhere else (not least in the RCN database that I have used to find them). They always have section "publications" and these lists show approximately the link rot described by Garos et al. If they were smart then they added as many DOI links as possible, which in my sample all worked. Other links to non-doi material usually was gone.

This gives us the first lesson about ruination (and we are just getting started, just wait for the interesting websites!): The majority of project websites have no value after the project's end. This might also apply to the time during the project was active, but this is another study. In their current form as ruins, can safely be deleted. No shoring, no spolia, they are ready for strip out.

24 websites are hosted by smaller private actors (companies, research institutes). They show more variation in layout and content than their siblings on large institutional websites. Since these smaller actors have fewer projects, the websites are part of their efforts to acquire new business. They act as references, which explains that they are visibly the subject of more care also after the project end. The fact that they have existed becomes part of their message, and in this sense they cannot be deleted even though strictly speaking their informational content is as little as in the case of the larger group.

Here come the fun websites, I found 17 of them categorised in four types.

Type 1: Let's put it on Facebook

Three or four websites that were found were hosted by facebook. Now, we do not know whether they were complementing another website, but what we can see is these presences do not age well, which makes sense because the main reason most likely was to create "engagement", this very specific form of digital connection. After the project is gone, these "connections" are not necessary any longer, the knowledge about them, or created by them, is ephemeral and not worth being stored.

Type 2: Let's put it on Wordpress

The second type of "interesting" websites were those three that tried to bend the blogging/web publishing platform wordpress to become a viable project website. To be fair, with various plugins this was probably possible, but as this example shows, it did not age well, either. The idea to re-use a free platform is interesting, we see more examples for this in the material, with Wix (free homepage) not ageing well, but wiki-software and github hosting in fact staying remarkable robust.

Type 3: The website is the product

The third type of website is projects that had a website as one of their deliverables. This can be a website which helps people to become physically active (<https://www.beyourbest.com/about>) or a teaching and learning platform (<https://DigUp.no>)

Type 4: Casinos and other parasites

The last type is a classic case of parasites that live in ruins in the sense of Anna Tsing. I found two websites where EU websites were used by Casino advertisements perusing their positive link-reputation, which will lead to acceptable search engine ranking.

Conclusion

To conclude, we learn from this empirical probe four things: First, most dead project websites can be safely deleted. They do not contain anything useful beyond things that are provided by robust standardised systems, such as the DOI system. If there is a candidate for shoring, and this is the second result, then it is these systems, that, however, seem quite robust. This cannot be said about facebook pages that would document “engagement” with the research - if there ever was engagement. We know that facebook has this data and uses it to train their LLMs. But a public system like the doi, would be a good addition. Third, walking among the ruins we saw what DeSilvey and Edensor (2013) have called “ruin memory”: Wordpress sites, Wix, Wikis, etc. had all their big moments during the last decades, and echoes of this can be found here. Finally, and fourth, we found Tsingian parasites, that thrive in the ruins.

Beyond these findings, in relation to the research program presented before the probe, the added value of project websites beyond the project’s duration remains unclear. If it is “engagement”, digital relations that existed only while the project was active, it is not documented. The suspicion is that the now-ruin never was much more than a “stage set”. That it never was a home for someone - as SL Star has called infrastructures.

What is next? More probes are needed. In the abstract sent originally, I have proposed software bloat and legacy systems in IT networks as potential areas of study. Can we identify patterns across these different themes? Ultimately, the hope is that this can become part of a much broader framework looking at democracy, knowledge, and sustainability as ruined infrastructures and to teach us about what needs shoring, what can be reappropriated, and what can be stripped out in our time.

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