Final Year Project

Slowing down social media.

Does obstructing the expected immediacy of technology affordances affect the quality and quantity of social media posts and therefore improve the qualitative nature of those posts?

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Table of contents

Contents

List of figures

List of tables

Chapter 1 – Introduction

It is the popularity of Facebook above all other social media platforms than has drawn a focus for research and experiment for this project particularly as its user base is predicted to rise to 65% in 2020 (Statista, 2018)

The intent of the project, was to *subvert* a set of accepted,normalised physical and functional characteristics of technology within social media use, on a day to day basis. The structure of the project has been built around the concept of making a physically obtructive device that mimics the process of handwritten text with which to explore the character of social media and its pervasive accessibility. Facebook was chosen as the social media provider, as it is currently the most used social media platform worldwide (Facebook, February 2018.). For seven days the only means of communication to Facebook was via the apparatus built for this project. Reports have shown that, particularly amongst young adults, that people with high levels of social media use feel a greater sense social isolation when compared to their lower media use equivalents (Primack et al. 2017)

By slowing down and making a more deliberate, measured approach to social media actions that it is the intent of this project to define and analyse measurable outcomes to compare against typical use of social media. It was purely coincidental that during 2018 Facebook would be drawn into huge controversy over its data sharing and the gathering and passing on of user's data without consent. The website accompanying this paper is available at https://www.vgndesign.com/

Chapter 2 – Background

Mobile Communications

The world's first mobile phone call was carried out in Aug 1973 by Martin Cooper, a senior engineer at Motorola, the mobile he used was a prototype that weighed 1.1Kg and measured 228.6x127x44.4mm (Mobilephonehistory.co.uk, 2018).

Figure 1 BT Pearl Mobile 1986 (BT Pearl Mobile Phone 1986, 2018)

Alongside the expansion of Wi-Fi, the adoption of smart phones, and PDAs (Personal Digital Assistant) began the process of moving personal computing from the home PC to a mobile platform, "*Increasing take-up of tablets and smartphones is boosting time spent online*" (Ofcom, 2018).
This physical immediacy was something the project addressed by making the process cumbersome and lacking in intuitiveness.

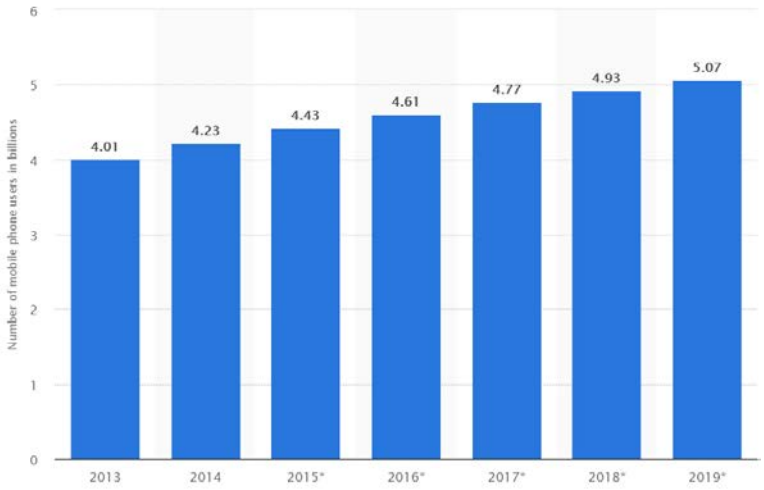


Figure 2 Number of mobile phone users worldwide from 2013 to 2019 (in billions). (Statista, 2018)

As mobile devices became more akin to the devices used today (Wi-Fi, 2G, touch screen interfaces), so the social media platforms migrated from desk top personal computers to mobile phones.

Rapid Information and Imagined Communities

With the growth in mobile text and quick photo sharing came the diminishing breadth of macro level news stories in favour of smaller more localised news feeds based on personal experience or social sharing. One of the offsets of constant connectivity is always being available.

The Fear of Missing Out phenomenon aptly expresses the need for the constant social media connectivity that this project strives to explore. The occurrence of FoMO (Fear of Missing Out) is described by the authors of a report into motivational, emotional, and behavioural correlations, as a "pervasive apprehension that others might be having rewarding experiences from which one is absent, FoMO is characterized by the desire to stay continually connected with what others are doing" (Przybylski et al. 2013). Steven J Kirsch's commentary (Kirsh, 2012.p84), on developmental conditions for youth and media, describes some of the states driving media participation amongst younger users. His notion describes the Self-determination theory (SDT) where the user is "hooked" into social media use through certain motivational principles. Of particular interest is the SDT contention that media consumption can help fulfil three basic psychological needs, and in doing so enhance feelings of well-being (e.g., self-esteem, positive emotions, and vitality) in the user. Three other psychological needs of note are *autonomy, competence, and relatedness* (Ryan and Deci, 2000) as they help define an imagined community.

Questioning the value of digital social media information

When looking at the nature of information sharing within the digital environ and its value, one can use a comparative process used by an established system within the analogue world. The intrinsic value determined within analogue information can be determined by guidelines by bodies such as National Archives and Records Administration where they offer objects possessing qualities the following (amongst others) as having *intrinsic value*:

- "Physical form that may be the subject for the study if the records provide meaningful documentation or significant examples of the form.
- Aesthetic or artistic quality.
- Unique or curious physical features.
- Age that provides a quality of uniqueness.
- Value for use in exhibits.
- Questionable authenticity, date, author, or other characteristic that is significant and ascertainable by physical examination.
- General and substantial public interest because of direct association with famous or historically significant people, places, things, issues or events". (National Archives, 1982)

Whilst looking at data gathered by marketing companies such as Track Social and Buddy Media, the optimum character length for a Facebook post is a mere 40 characters, compared to Twitters almost encyclopaedic 80 (Social, 2018). The personal nature of posts can be determined by the attributes of the Facebook account holder's own personality (Seidman, 2018).

Seemingly, media in a digital form that could be said to be lacking in purposeful fabrication due to the transient nature of social media posts. It can be seen through looking at post shares and interactions: "Facebook users "like" their friends' content and comment on photos relatively frequently, but most don't change their own status that often" (Smith and Smith, 2014) showing that a large amount of traffic is merely shared, rather than created.

Affordances and the Slow Movement

By re-appropriating older technologies to test the affordances (see appendix)one can, through measurement, determine the time used and functionality of the technology constructed and how that impacts on the quality and quantity of data input within the context of social media. In Ian Hutchby's "Technologies, Text and Affordances" paper he explores the idea that "technological artefacts are socially shaped" (Hutchby, 2001.pg 441) and further expands upon the idea that technologies are inert and if not moved into obsolescence "take novel forms, or are subverted by users to be employed in ways quite different from those for which they were originally intended" (Bijker and Law, 1992.n.p.)

By adding obstructive processes not usually associated with the current mobility of technology there emerges a slowing down of activity. This idea of deliberateness and slowness was described by Carl Honoré in his book, In Praise of Slowness "Doing everything as well as possible, instead of as fast as possible. It's about quality over quantity in everything from work to food to parenting" (Honoré, 2009). This slowness is a counterpoint to a contemporary rapid information saturated living and can show the breathless nature of modern life, giving one a chance to experience a greater deliberateness to interactions and creativity. It is this subversion of expected affordances as described by D.A Norman "affordance refers to the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used" (SOEGAARD, 2018) that the project aims to investigate and quantify.

Chapter 3 – Methodology

To begin testing the hypothesis, a live experiment was devised with which the project author would interact with social media, particularly Facebook. The method to effect a viable test was to devise a set of approaches that would offer a more deliberate, encumbering experience to the normalised social media interactions of modern mobile communications. The posts were recorded and notes made on the affordances ensuing from daily use.

From the commencement of the project, contemporaneous devices were analysed to investigate the standard posting procedures. This was implemented so that the affordances of the home built "Facebox" device could be measured against standard mobile devices. Comparative affordance recordings were carried out against a Sony Z3 Compact Mobile phone, and Samsung S6 mobile phone (both running Android 5.0.2 "Lollipop") and an Acer S3 19M6K7L2 lightweight laptop running Windows 10 version 1709 OS build 16229.431.

Conceptualising the device

One of the key objectives of the build aspect was to establish a working device from which the author could interact with Facebook in a manner that could test the hypothesis posed within this enterprise.
To ensure that the project was able to offer results that could be quantified and qualified, a set of usage guidelines were researched, which were considered to offer data for analysis. The method chosen was to use an obtrusive, self-constructed device for social media. This device was self-contained and fully mobile. The set of predetermined rules for posting during the "live" time of the project were drafted to be adhered to, making sure there was a consistency of data and posting. These determinants were as follows

1. All posts and comments must be from the device.
2. All posts and comments must hand drawn/ written from the device.
3. The posts and comments should be continuation of the usual nature of past posts to ensure an assiduity to previous usage.
4. Posts used through the "live" tests must be compiled only from the experimental device and should be carried through sedulously.

The final fabrication concept evolved through design experimentation and research, with the goal being to make a device that would provide a digital to analogue translation method for social media. This was to be accomplished in adherence to the principle of slowing down the processes involved in posting. Some of the conceptual inspiration was motivated by the idea of re-appropriating older technologies and retro-fitting contemporaneous components. After several experimental processes of working with analogue displays with posts and newsfeeds, a direction was taken to explore input methods: the way a user could replicate an analogue input method to compile posts that could still be used within the Facebook structure.

Figure 3 Delco radio fitted with Bluetooth (ke4mcl, 2018)

Notification and explanation to Facebook followers

As part of the preparatory process, all of the author's Facebook followers were given a "presumed consent" notification and a short explanation of the projects aims and background. This was sent via Facebook messenger with links to the website that accompanies this project. The intent was to inform users that the author's comments or post on the author's newsfeed were, during the live experiment to be used to evidence the findings. The Portable Document File (PDF) that contains the disclaimer is included elsewhere as part of this report's submission. The explanation was not updated to include the hand writing process as it was felt by the author that this would confuse people

Data Gathering

The process to gather and compare anecdotal evidence from the day to day use of the device data gathering sheets was implemented as a means of reckoning the activities involved in using the unit. Feedback from other Facebook users and people who had observed the author being active with the unit were also recorded in a video log. Daily short blogs were written where pictorial records were posted onto a website (https://www.vgndesign.com/). The table of records example can be seen in the appendices.

It was anticipated that the extra dimension of the website would stimulate further feedback from people participating and engaging with the posts.

Tables of affordances and the followers' reactions to the written post were monitored to give an indication of how the readers of posts felt about the nature of media. This was achieved through screen grabs and written annotation during the "live" experiment period.

Chapter 4 – System Development & Data Analysis

After early prototyping the experiment and towards the completion of the final build it was important for the purposes of the hypothesis to use the Facebox device in real life to gain real time data. To that end the author lived with the large box and used it as the only means of posting onto his own and other people's newsfeeds.

Early formative stages of the build

Early prototyping was carried out using UHF (Ultra High Frequency) signals that transmitted the personal Facebook feeds into vintage TV receivers. The nascent concept was to see how much visual corruption was tolerable to the user and whether this impacted on the test posts and subsequent follower's comments on those post. The list of technologies used is available in the appendices.

The main early tests were to trail the usability of the 5" 320 by 200 black and white screens, investigating the readability of the Facebook text. The initial tests were with basic 5" UHF capable portable TV units, where the aim was to test the practicality of reading and posting text on low resolution obsolete devices. After several hour long sessions using the device, it became apparent that a change in methodology was required. The difficulties of using this method is described in fuller detail within the appendices, Table 5.
Once the tests and practical trials were carried out a concept was formed as to how to refine the project. But the main computing electronic was kept (Raspberry Pi 3b + Raspian Stretch OS) as it's portability was essential for the final production. The Raspberry Pi lowest working screen resolution was a 640 by 480 dpi (dots per inch) although others were tried without improvement to interface fidelity or readability.

Figure 4 Raspberry starter kit (Amazon, Anon, 2018)

Figure 5 The components for the original test build using 5" TV

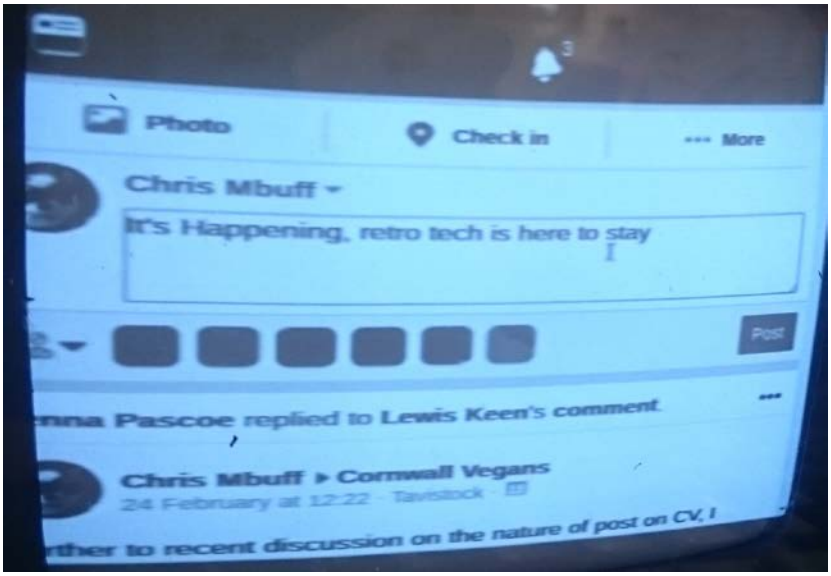


Figure 6 Photograph of Action TV unit screen rendering Facebook posting window

Figure 7 Testing the Outputs from Raspberry Pi 3 into UHF Converter

In order to commute the digital Facebook signal into a recognisable medium for the TV receiver, a radio frequency modulator was used. The separate components tested were not assembled into a containing box but used as separated devices linked via leads.

Figure 8 The First test post onto report author's Facebook

Analysis from the formative build

From the outset, the conversion of a digital social media format into a TV was a process that was experimental. The early observations identified technical problems that became apparent only through several attempts at use. During the early stages it was noticeable the working "estate" (usable area of the desktop) was not visible and also that the TV screen scanned and rescanned alpha numeric characters, making them jiggle up and down. Alongside the characters' lack of unsuitable refresh rate scans, the nature of the low resolution TV meant that reading characters was almost a haphazard affair with educated guesses, using context, to decipher messages received and edited. This was more so the case with the latter TV unit and therefore the strain to the eyes for even 3 minutes use became unbearable. In the picture shown below it is shown how some of the application "estate" was missing.

The first TV unit (Action ACN- 7030) failed after 3 posts and the replacement Visiolux TV unit was then used for a further 24 hrs.
An affordance summary table of the prototype device is given in the appendices (Table 4).

The refined build

To develop the next stage of the process involved personalising and refining the conceptual nature of the project into specific form. After a review of the nature of the project a shift to move the technologies into a more personalised and expressive form was taken. The box that the technologies were fitted into was designed and built by the project author from European cherry wood and “spalted” (wood colouration) maple with mixed timber inlays and adapted from a traditional writing slope created by the author.

Later, by moving to a large wooden writing slope, used in the final build, the concept was strengthened to give more credence to the idea of manipulating the form of expected digital posting into one of a more historical, analogue communication structure. The design concept shifted to the idea of re-appropriating traditional writing equipment to work with current technologies.
The technologies used were:

- Raspberry Pi 3 Official Desktop Starter Kit (16Gb, White)
- Portable Charger RAVPower 22000mAh Power Bank 5.8A Output 3-Port Battery Pack (2.4A Input, Triple iSmart 2.0 USB Ports, Li-polymer Battery)
- Elecrow Monitor Display IPS Screen -7 Inch 1024X600 HD TFT LCD with Touch screen
- Wacom Intuos Draw graphics tablet
- LB-Link USB Wi-Fi Module with Antenna
- Parts from Asda own brand rechargeable stereo speaker to enable sound repduction

Figure 9 7” Touch screen (Elecrow 7" TFT Screen, 2018)

The LB-Link USB Wi-Fi Module with Antenna was added to the project after it was found that there was an incompatibility between the workplace router chipset and the Raspberry Pi 3 SoC (system on chip) Broadcom BCM2837 chip. It also improved signal capture throughout the time the device was in use. After initial testing the re-design process was initiated, whereby the screen was not a hindrance to the process of communicating, but the input method was changed to a pen based graphics tablet. The "written" post were saved as fairly low resolution JPEG & PNG files (Joint Photographic Experts Group, Portable Network Graphics) files and posted as pictures on the normal Facebook posts and newsfeeds sections. The JPEG resolutions were 72dpi at 400px by 400px or 400ps by 800px (PNGs were varied). The refined build didn't draw the same (larger) electrical loads as the 5" TV power supply issues became less constrictive and a portable power pack was used to make the unit fully portable.

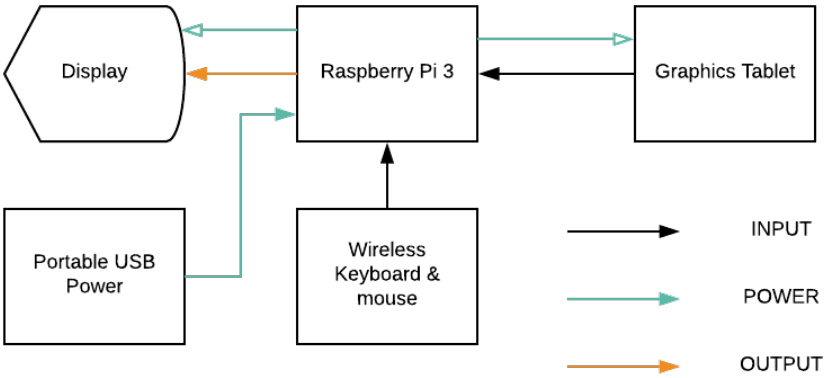


Figure 10 System layout for components, showing power routing and input outputs.

Figure 11 Testing the separate components for hand writing

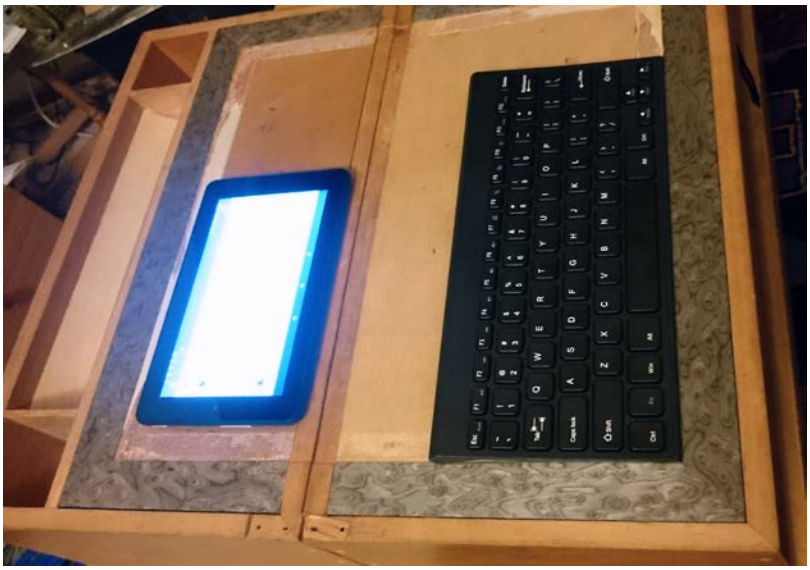


Figure 12 Testing possible layout solutions

Figure 13 Fitting the elements into the writing slope (no speakers at this stage of the build)

Small amplified speakers were the final addition to the piece, which were independently powered via a Li-Po (Lithium polymer) battery concealed under the front speaker baffle. This addiction meant videos that were posted on Facebook could be viewed with sound, as intended.

Figure 14 the Finished build with vinyl cover.

The idea of writing into the Facebook on a traditional writing apparatus using modern HCI (human computer interfacing) became the core idea that was carried to the end of the experiment. As part of this process a move from keyboard generated text towards hand written /drawn files was chosen. This was done to reinforce the notion of subverting contemporaneous modern wireless text and casual "curational" picture sharing (as per normal in social media shares) into an alternative translation medium that would give unique results.

Figure 15 inside the Facebox showing Raspberry Pi3, TP link Wi-Fi module and sound interface with speakers fitted

The various fixtures and cabinet furnishings were assembled to give an overall aesthetic of a modern take on a traditional piece. From the start of the experiment several technologies were assembled to construct a device that would be obstructive and obtrusive to a normalised the posting on Facebook. The constructive was built to test the hypothesis with a practical construction that could be used experimentally. The background behind this was to see whether the approach of exploring precepts of "media archaeology and dead media" (Huhtamo and Parikka, 2011) would yield results that proved or otherwise the hypothesis of the project.

Although the amount of data gathered from Data Sheet 1 was small, it did conclusively illustrate that basic affordances were troublesome and therefore slowed the “posting” processes. This data was solely concerned with preliminary testing with the older 5” black and white TV construction

Analyses of Final device

Data was gathered throughout the 7 day experiment and summarised into a condensed format in Data Sheet 2 in the appendices. The processes involved in commenting and posting followed a more convoluted route than the standard procedure, as can be seen in the flow diagram below (a further comparison table can be found as Table 3: Facebox Affordances comparative to Windows laptop). There were many more stages and a much heavier cognitive loads using the self-built device as opposed to the mobile phone.

FaceBox	Mobile phone (Z3 compact)
Find table or suitable surface	Lift the phone into view
Open box	Unlock mobile phone
Open drawer	
Plug in power	
Lift Screen Flap	
Take pen from drawer	
Close drawer	Navigate to correct screen
Select Chromium /Facebook Mobile website	
Select Post or Comment	
Open Pinta paint	
Select Brush size	
Compose message	
Select save	Press tap Facebook icon
Open Keyboard screen app from menu	
Shrink Pinta paint window	
Move active window to see the required window	
Select save file text box	
Navigate back to the on screen keyboard	
Type file name	
Move active window to see the required windows	
Press Save	
Move Pica Paint window aside	
Navigate back to Facebook post area	
Select camera Icon	Select comment or post
Navigate to the correct file	Comment with onscreen keyboard or select picture to share
Post	Post

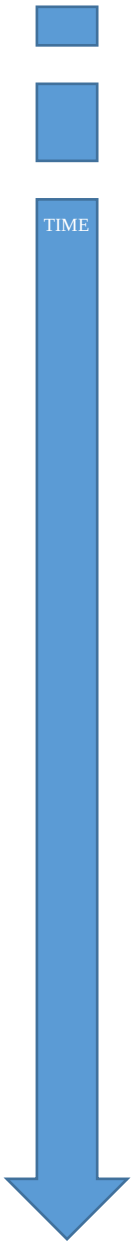


Table 1 Facebox Affordances comparative to android Mobile phone

Software and hardware slowdown of processes.

Firstly the Raspberry Pi would “cold boot” into its operating system (Raspbian Stretch) each time a Facebook postings session was initiated taking around 30 seconds. The processes of using an external application to Facebook, saving the file as a graphic, retrieval of the graphic into the comment area, by itself, led to a much more convoluted process than standard posting methods. This was an unexpectedly slow process, a one sentence comment was timed at 4’20” for the “handwritten” post from the Facebox device, as opposed to 55 seconds posting via a mobile phone and 12 seconds for the laptop posts.
My typing speed is around the same as my handwriting speed (slower than average) at 22 word per minute (Typingtest.com, 2018). It was the affordances of the software and the ensuing pausing between switching windows, saving and retrieval of graphic files and the resulting navigation issues because the window were larger than the screen estate that slowed the posting procedures most notably.

The processing overheads for the Raspberry Pi3 running Facebook mobile app through Google Chromium and Pinta drawing app was large and often the open windows would freeze when being navigated through. The hardware of the Raspberry Pi3 in a mere 1.2GHz Quadcore processor and 1 GB of RAM whereas the Sony z3 compact runs Quad-core 2.5 GHz at over double the speed (2.5GHz) and the Acer S3 laptops i5 - 3317U processer holding a massive advantage with on board chip cache of 3MB and a greater bus speed. One of the reasons that there was lag within the system is the system resource hungry nature of Chromium (the Linux based Google Chrome).

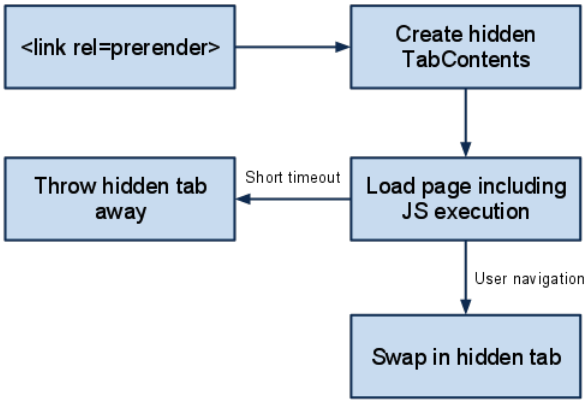


Figure 16 Chromium Pre-rendering (Google, 2018)

The pre-rendering processes are triggered by element in the web pages, where a hidden page will perform full loading of the subordinate processes alongside its execution of Javascript. (Chromium.org, 2018). These processes can add overheads particularly to system with small amounts of RAM and lower CPUs (Central Processing Units). This was not deemed to be too intrusive to the experiment and was left as a “on of the box” solution for rendering Facebook’s mobile page.

Notes on affordances

Starting with the most notable of the physical affordances; the size of the apparatus was172mm by 245mm by 450mm. It is apparent that the device functioned more akin to a heavy large laptop than a hand held or lightweight device. The Facebox needed a flat surface to be used where once, fully opened the foot print was 450mm x 490mm. The battery would then need to be connected via a USB and then the operating system would boot. It was decided not to use any external keyboard for the duration of the live experiment and the on-screen keyboard was only used to name the files to be saved, this method was inelegant but added to the value to the idea of solely using the pen and graphics tablets for human user interfacing (HUI).

Production of alpha numeric characters

By using the method of drafting posts with the pen (which is a companion device to the graphics tablet) and the Wacom tablet posts were hand written and sometimes illustrated . The writing was not as natural as analogue methods for several reasons.

1. Using the graphics tablet on the writing slope, rather than flat as it was intended, led to discomfort in the writing hand after continual use (15mins).
2. The software and the tablet resolution were quite low, giving the lines (non-simple multiline strings) ergo the text an appearance of dots compacted together.
3. Writing on one surface, whilst remotely observing the result on another is not a process taught as part of writing in the developmental stages of education.

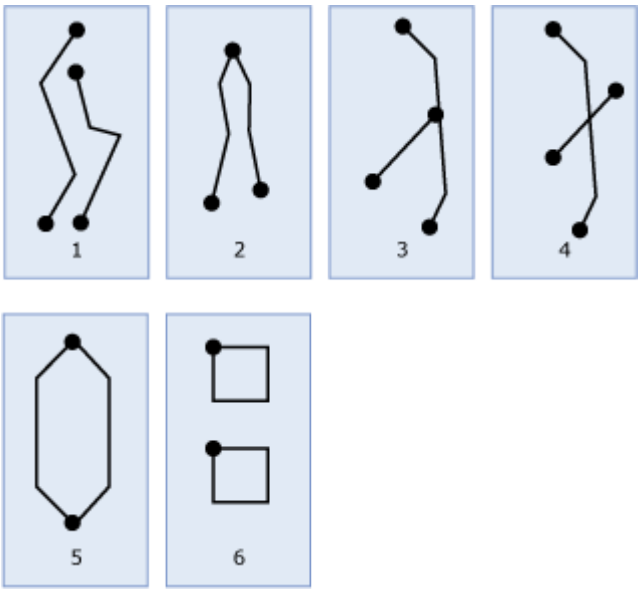


Figure 17 Multiline Strings (Microsoft, 2018)

Figure 18 Screen grab showing the "blobby" nature of the rendering of lines

The construction of the apparatus was a challenge in that a larger 10” TFT screen would have given a larger screen estate for writing and therefore been more suitable for graphics. The graphics tablet was embedded too low down the bottom half of the slope making the writer palm rest on a corner, causing some discomfort whilst writing.

It became apparent through use that the writer needed to be more cognisant of the nature of digital alpha numeric reproduction and therefore more aware of the lack of character fidelity displayed to readers. The technology matters aside, there was an unforeseen matter as regards the nature of the author’s own hand writing style.

Newsfeed readers were posting comments underneath the author’s written posts informing him that the writing was difficult to read. This is a problem not usually encountered through typed media and therefore the posts became more deliberate in the way that the words were expressed. This awareness, through feedback, of the audience’s need to decipher rather than scan read, led to a use of more carefully formed words and an awareness of the space and formalness needed to effectively communicate a message.

Results from Live Testing

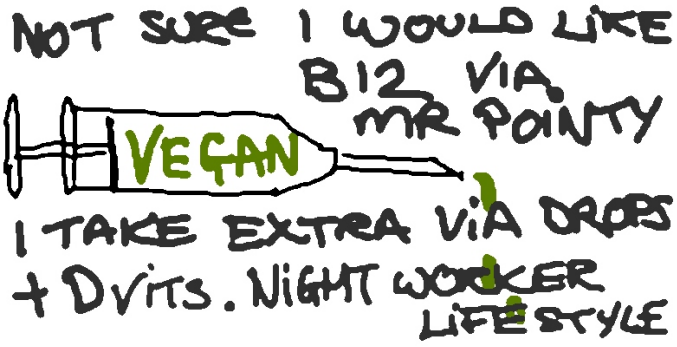
The analysis of the live experiment and its effects on daily posting into the author's default Facebook feed (https://www.facebook.com/chris.mbuff) were counted during the hand writing week and compared to the author's usual typed comments (each post was counted as a separate entity).
For the week 18th to 25th May 2018 the default method comments (via lightweight laptop) by total are given below, compared to hand written comments for the week 29th April to 5th May.

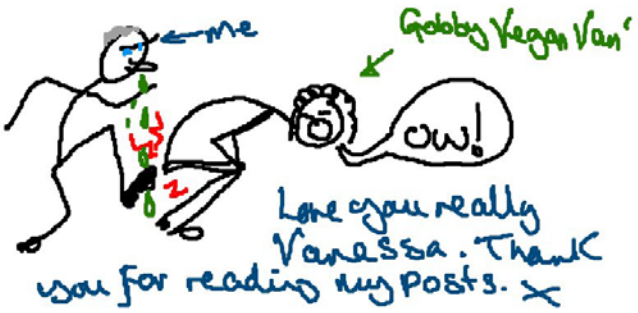
Date	Post numbers Normal Text	Date	Post Numbers written/ drawn Text
18th May	30	29th April	14 (includes one from fellow student)
19th May	45	30th April	13 (includes two from work colleagues)
20th May	51	1st May	12
21st May	47	2nd May	3
22nd May	34	3rd May	19
23rd May	45	4th May	14
24th May	22	5th May	9

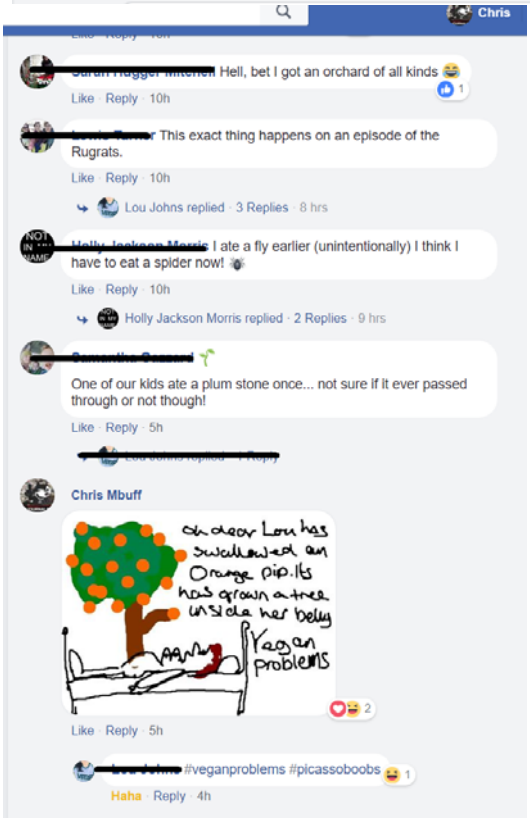
Table 2 Showing comparative daily postings

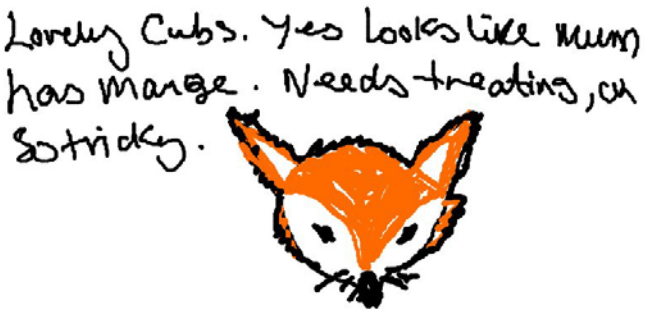
The average posting word count for the author's normal mobile Facebook comments were 39 rounded to the nearest whole number as opposed to 12 for the handwritten post. It should also be noted that the length of the posts were considerably shorter when hand written, 179 words on the 24th May 2018 for typed text as being the longest comments that had been typed, but a maximum record word count of 28 words hand written on the1st May 2018. The nature of the hand created postings were a lot less technical in language and substance, than those measured from typed words. It could be argued that the lack of copy and paste facilities meant that the hand written post were more personal and experience based. A lack of instant accessibility, caused by using the Facebox device, did present a panacea to the constant social media connectivity that can lead to the Fear of Missing Out phenomenon. The time taken to set up and post was intrusive and encumbering to the desire to continually check and post in an almost disassociated unconscious manner to paraphrase (Margalit, 2018)

Some of the posts and the context of their settings are illustrated below.









Chapter 4 – Conclusion

The fabricated build, the website and the live experiment were sound in accomplishing their goals overall. Once fully functioning the Facebox was used throughout the live period and was adopted as the sole mechanism for posting. A slowing down processes to achieve better results as described in chapter 2 by Carl Honoré was also effectively attained, albeit that the quality of the post was changed to a different format. The overall feedback from followers was mixed but the majority feeling was that they (the followers) had to slow down reading my posts and that caused them to stem the normalised faster scan reads on comments. This slow reading re-enforced the concept of a more deliberate use of social media. The use of hand written posts was not Omni-directional in that respect, as audience participation was instrumental in making the postings a fluid and evolving activity. This participatory

The physicality of the object itself was obstructive to the everyday expectations associated with mobile communications. Weight and size were a consideration when attempting mobile communication to Facebook, and ultimately restricted the always connected accessibility that is familiar to social media users. Scrutinising this physical obstructiveness further, it was definitely a factor in limiting the number of posts carried out during the experimental period. Location became a key issue when considering a posting, in that a suitable surface was needed to for set up which meant it was used only at the author's place of work, The University of Plymouth and on flat surfaces at home. This is in contrast to the less formal positions of the operator, posting from a greater variety of locations both in the domestic environs and outside of the home, when using modern contemporary, considerably smaller, fully mobile devices.

The obstruction of accessibility did, through the experimental period, diminish the quantity of posts by a difference of 27 posts per day average or 106 % less by writing the posts on the Facebox device. The biggest change in quantity was the total comments posted during the two comparable weeks: 274 post for traditional posting methodology but 84 for hand written posts a difference of 190 post is a 7 day week.

One aspect of consideration, that wasn't unexpected, was that the rendering of the multiline strings would make reading the written words more challenging for end users. Personal handwriting style aside, it was a factor in readability that compounded the overall legibility of the words written. Quality degradation should be, to some degree, disassociated with the project goals but included as a supplementary addition to the slowing down process, noted earlier in this report.

The qualitative nature of the posts were altered in both their content and the purposefulness of their fabrication. When compared to typed text, the hand written posts did fulfil three from the seven criteria demarked by the National Archives and Records Administration as regard having *intrinsic value*; “physical form that may be the subject for the study if the records provide meaningful documentation or significant examples of the form, aesthetic or artistic quality, unique or curious physical features, age that provides a quality of uniqueness” (National Archives, 1982). It was noted by some followers to the newsfeed, that reading the post was frustrating, but generally it was expressed that they enjoyed the character of the posts. That the author’s personality was reflected through the medium is evaluated as, again, adding a unique quality to the use of social media.

What is striking when analysing the current “love, loathe” position with Facebook’s social media and the internet is how notable architects of the digital media revolution are now repulsed by the beast they have created. In NY magazine some of these architects have openly expressed concerns over social media’s tentacle like grip on people’s psyche. Sandy Parakilas, product manager for Uber has analysed the grip of social media, noting that it is intentionally designed to hold a user’s intention (Kulwin, 2018). But one might consider as part of a wider question, what it is this captive audience is participating in as the media itself is used more and more for marketing, socio-political campaigning, meme and video sharing alongside the daily personal statements of people activities and opinions. This is stated here, not to devalue that content but to indicate a wider study would be beneficial on the nature of value with the transient medium of social media.

By subverting the form of Facebook posts from a meme, typed, shared and emoticon form, to a medium of personality and character, it can be argued that slowing down the operational mechanisms give space for greater engagement. Rapid, mainly visual stimulus (via computers) are known to “make visitors feel connected without the difficulties and complexities involved in face-to-face interactions” (Margalit, 2018). However, by the mechanism of personalisation within social media spaces we are able to define a less homogenous tone to Facebook. Whether this more bespoke
The uniqueness of the Facebox device and the nature of hand written posts gave a complexion to posting within the social media spatiotemporal paradigm that was of a greater quality as regards its expressive individuality. Public curiosity in the project indicates that there is currency of originality in slowing procedures, being more connected to the form and adding unique content to add greater significance social media posts. Whether its value is greater than a narrative on the lack of original content within the media is an open point that will involve further studies and research as subject area is relatively new and unexplored.

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Appendices

What are Affordances?

Affordances are an object's properties that show the possible actions users can take with it, thereby suggesting *how* they may interact with that object. For instance, a button can look as if it needs to be turned or pushed. The characteristics of the button which make it look "turnable" or "pushable" together form its affordances.

Psychologist James Gibson coined "affordance" in 1977, referring to *all* action possibilities depending on users' physical capabilities. So, a chair not only "affords" being "sat on," but also "thrown," "stood on," etc. However, in human-computer interaction (HCI) expert Don Norman's 1988 book, *The Design of Everyday Things*, affordances became defined as *perceivable* action possibilities—i.e., only actions users *consider* possible. Thus, an object's affordances depend on users' physical capabilities and their goals and past experiences. A chair only affords "sitting," because past experience supports that action. Don Norman's definition of affordances as perceivable action possibilities soon became the predominant one in HCI and UX design (The Interaction Design Foundation, 2018)

Quality-in-use characteristics	Definition of the Objective characteristics of the QiU-4-MUI	Interpretation
Effectiveness	Number of actions required to complete the subtasks of each task in a specified context of use. It is measured in actions per task. The closer to 1.0 the better	
Productivity	Number of actions performed in a specified context of use relative to the time taken, larger the number the better	
Efficiency	The efficiency of the user in completing the task in a specified context of use. It is measured in actions per second.	
Error Safety	The safety of the user, in terms of the number of errors committed in each action of each task performed in a specified context of use. It is measured in errors per action. The closer to 1.0 the better	
Cognitive load	For a given user task, the weighting of each screen view by the number of actions performed on that screen, which must be minimized to keep the user focused on the task at hand, but sufficient to increase the user's confidence in using the application and to reduce the possibility of the user losing interest during a task. It is measured in number of actions per view.	

Table 3. Quality characteristics of the QiU-4-MUI model.(Alnanih and Ormandjieva, 2016)

Social media growth

The use of social media has tripled since 2007, when Ofcom first asked people about their social media habits. Nearly three quarters (72%) of internet users aged 16 and above say they have a social media profile, compared to 22% in 2007.

Some 81% of social media users log into these websites or apps - including Facebook, Twitter, LinkedIn, Instagram or Tumblr - at least once a day, up from 30% in 2007.

Social media has seen the biggest growth among 35-44 year olds, with 80% of internet users in this age group now on social media, up from just 12% in 2007.

2014 saw a dramatic surge in older people using social media, with nearly half (49%) of 55-64 year olds who go online having a social media profile, up from one third (33%) in 2013. (Adult's media use and attitudes, 2018)

Addiction

Whilst researching the reasons why Facebook could be addictive Dr. Brent Conrad (a clinical psychologist) identified some key areas in his online article :Why Is Facebook Addictive?

Twenty-One Reasons For Facebook Addiction (Conrad, 2018).

Minimal Effort Catch-Up

Lets Us Share Information With Many People Simultaneously

Appeals To The Info Junkie In All Of Us

Feeds Our Naturally Voyeuristic Natures

A Forum For Our Egos

Fond Memories...In Retrospect

Makes Us Feel Understood

Family Contact

Minimal Effort Catch-Up

Lets Us Share Information With Many People Simultaneously

Appeals To The Info Junkie In All Of Us

Feeds Our Naturally Voyeuristic Natures

A Forum For Our Egos

Fond Memories...In Retrospect

Makes Us Feel Understood

Family Contact

My Mood Booster

Makes Us Feel Part Of An Expansive Exciting World

Feeds The Essential Need For Human Connection

I'm Thinking About You...But I Really Don't Want To Talk To You Right Now

Social Needs Fulfilled In Digital Form

I Can't Miss Out!

Friendship Quantified

I'm Not Wasting My Time...This Is Meaningful!

Socializing + Gaming = An Irresistible Combination

How Do I Really Compare To Others?

Boredom Buster For All

Insecurity Response

I Am Not Alone

Early Prototype components

- kenable 4 Pole 3.5mm Jack To 3 x RCA Composite & Stereo Audio Cable 2m
- MoKo Slim 2.4G Keyboard + Mouse, Universal Rechargeable Wireless Keyboard & Mouse Combo, for Laptop / Desktop / PC / Computer- Black
- Technomate RF Modulator
- Raspberry Pi 3 Official Desktop Starter Kit (16Gb, White)
- CDL Micro 1.8 m Gold Plated TV Aerial Cable (M-M) with Adapter (F-F) - Black
- kenable RF Push Type Female Coax Socket to 3.5mm Mono Jack Plug Adapter
- Action ACN- 7030 / later replaced with a Visiolux1421B

Facebox	Window Laptop
Find table or suitable surface	Find table or suitable surface
Open box	Power On
Open drawer	
Plug in power	
Lift Screen Flap	
Take pen from drawer	
Close drawer	Secure Login
Select Chromium	Select Chrome
Search or Navigate to Facebook Mobile website	Search or Navigate to Facebook website
Search or Navigate to Facebook Mobile website	
Open Pinta paint	Type Post
Select Brush size	
Compose message	
Select save	
Open Keyboard screen app from menu	
Shrink Pinta paint window	
Move active window to see the required window	
Select save file text box	
Navigate back to the on screen keyboard	
Type file name	
Move active window to see the required windows	
Press Save	
Move Pica Paint window aside	
Navigate back to Facebook post area	
Select camera Icon	Select comment Share or post
Navigate to the correct file	
Post	Post

Table 4 Facebox Affordances comparative to Windows laptop

Data sheets

Expected Affordances 5”TV Test Unit	Summary of some noted Affordances	Did this mean task were more deliberate/ slower
Usability of application window(Productivity)	Some of the Facebook application window was rendered “off-screen” and scrolling by holding down mouse button, was constantly necessary to check operational success such as :location of “post” button	yes
Alpha- numerical rendering integrity (Error Safety)	This was often poor and sometimes un-decipherable in both post and newsfeed windows. The nature of characters leaping slightly up and down meant that only capital letters were recognisable with any regularity	yes
Confidence in sending post with correct spelling and formatting	Using the Visiolux often meant message text was so poorly rendered that the user had to trust that the content was spelt correctly.	yes
Cognitive Load	The cognitive load was markedly increased through navigation to areas off screen, the assumption that the buttons clicked were in fact of the correct type and the need to recall character and words already typed when they were note able ti be interpreted	yes

Table 5: Data Sheet 1. Affordances of Prototype build using 5” Black and White TV

Affordances Writing Slope Unit	Summary of some noted Affordances	Did this mean task were more deliberate/ slower
Usability of application window(Productivity)	The screen estate was cluttered and windows overlapping. The Chromium application and Facebook pages took longer (approximately 30 sec average each) to load, connection were slower than laptop or Samsung S6. Windows had to be shuffled around in the screen to access the Drawing program, the save screen, on screen keyboard, then to navigate to the saved file via root folders, and	Yes/No Yes both
Alpha- numerical rendering integrity (Error Safety)	The earlier post were less legible to followers and the nature of the program used (Pinta) also once changing to a black background text was easier to read. Multiline rendering was not of a high quality adding to the cogitative load of readers. Hand writing style was an issue for some readers, therefore greater care was taken in forming words after the first day of posting	Yes/No Yes Both
Confidence in sending post with correct spelling, formatting and space to write the text	There was no spell checker was available therefore full confidence was lessen whilst writing. However a choice of more familiar words was substituted to ensure confidence. The graphic application canvas size (file size) was often a consideration as long picture formats did not lend itself to the Facebook post viewing size predetermined by its application	Yes/No No
Cognitive Loads	Cognitive loads were greatly increased as application windows needed to be moved around to navigate to hidden windows. The on screen keyboard was often lost under windows and was a major part of slowing down the save file processes. Lack of shortcuts meant every process was initiated from the LXDE start menu	Yes/No Yes Both

Table 6: Data Sheet 2 Affordances of Facebox apparatus – readabily/ comprehension

Newsfeed Followers	Yes/ No	Summary of Comments
Was the post readable	Yes	Followers found that the early posts were harder to read. It down slow down their scrolling actions and they spent greater time deciphering text. Later messages were commented as having a clearer style of writing. Also later post began to use pictures to break up text heavy posts.
Was the content understood	Yes	The message of the posts was deciphered and followers did react to comments, shares and post as per expected norms, except when the posts referred to its own legibility or content to garner feedback. Only once was the author asked to clarify a post which was cryptically undescriptive due to the slow process of hand writing a fuller post
Did the written post offer any greater or less meaning by the nature of being handwritten? (see Chapter 2 on intrinsic values)	1 – 4 1= Less so 4 more so 3	The comments from followers were that they enjoyed the uniqueness of the hand written/ drawn post and that, for those that new me in person, that it was reflective of my personality and voice.
Were people more or less interested in the form(as a novelty) rather than just reading the content	Less/more Both	A difficult area to quantify as reactions were mixed the greater the distance people were from the regular circle of Facebook followers the less likely they were to comment on the nature of a hand written post.

Table 7: Data Sheet 3. Collecting data on the feedback from the post's followers as averaged over the 7 day period.