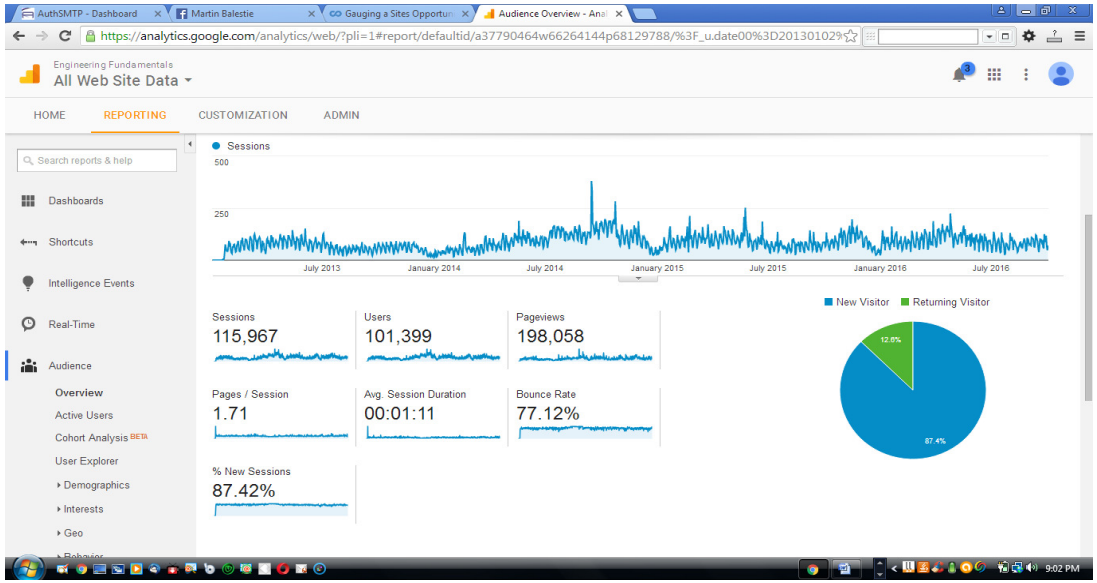
PRELIMINARY REPORT FOR ENGINEERINGFUNDAMENTALS.NET/COM ONLINE SERIES

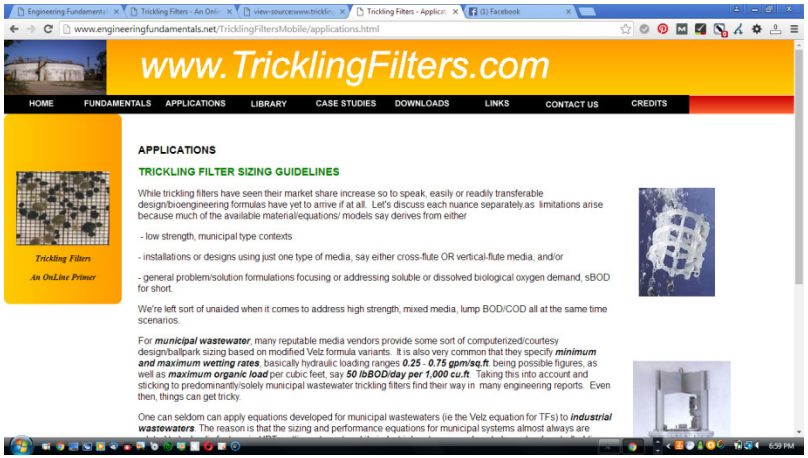
Thanks for giving us an opportunity to go over your present online series as well as providing access to highly valuable analytics data. Thanks also for providing a little seed budget to carry out valuable research and testing for a couple of months. This has enabled us to prepare the following preliminary guide and an interim quick redesign platform for possible courses of action.



PRESENT AND PROPOSED INTERIM WEBSITE "LOOK AND FEEL"

We share your concern of the series' overall dated look and feel design. The picture on the left show a screenshot of the dated design, while the right screen shots illustrates a proposed interim redesign to quickly port as much content as possible and quickly deploy ***mobile friendly versions***. Rather than attempt to put quick fixes on the dated designs, quickly launching an interim platform, even at the risk of duplication, was considered mandatory, even for analysis.



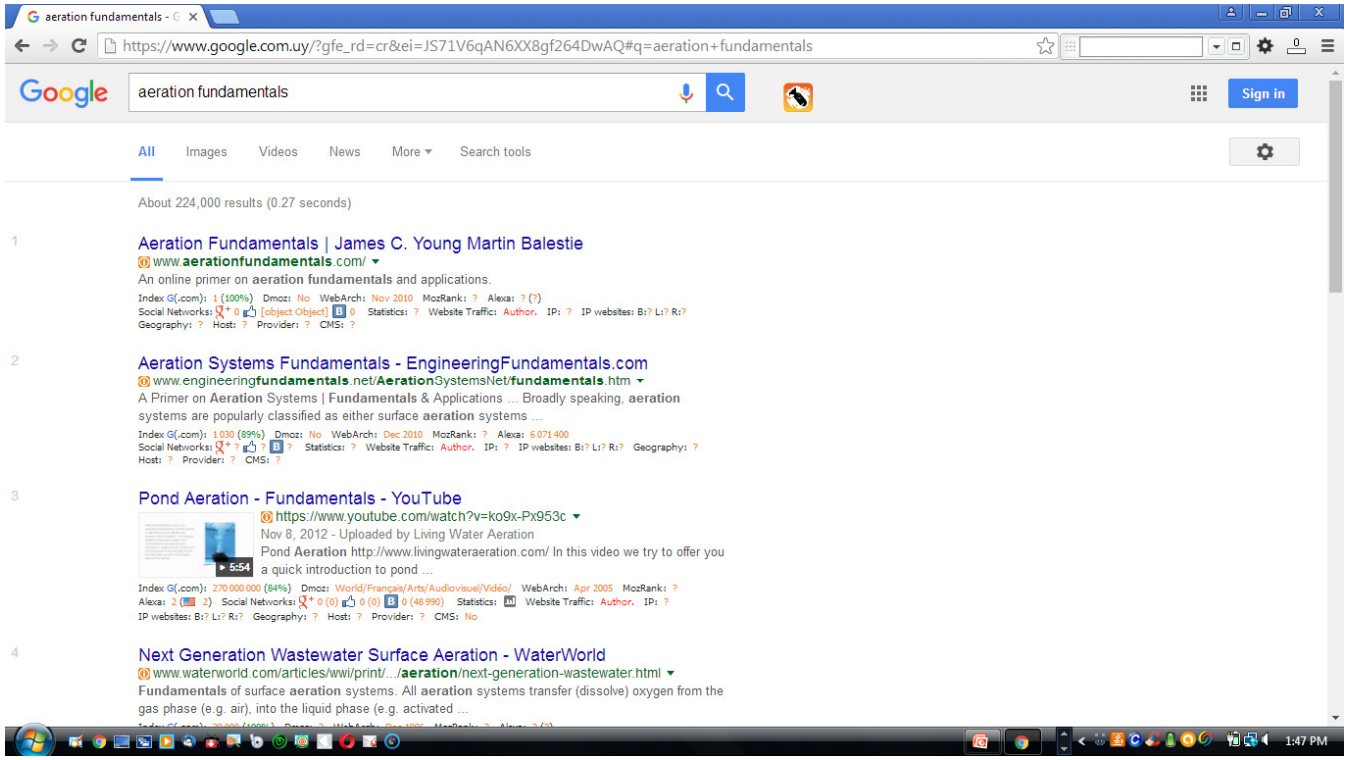


ON-PAGE CONSIDERATIONS

Upon examination, we have found that the early series components basically lacked most if not all contemporary on-page key factor recommendations. This is a short list of detected items with the help of specialized software, and ***which have been addressed in the new interim platform***, such as:

1.almost ***non existent Title Tags***; almost 100% unbranded

2.almost ***non existent HeadingTags->as a result: # 1 & #2 spots!***



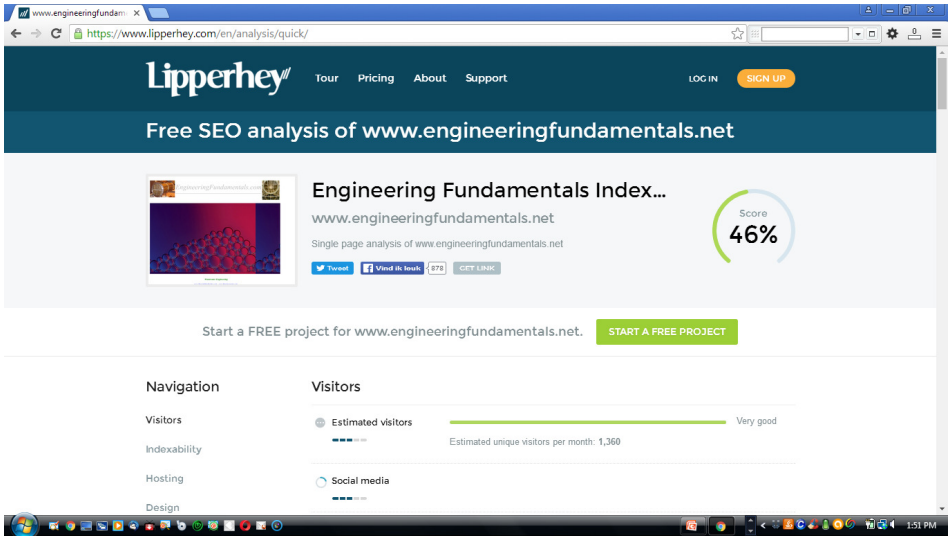
ON-PAGE CONSIDERATIONS (continued)

The following items were also noted

1. ***uneven webpage depth***; while this is obviously a consequence of the original design, some webpages ended up being too shallow and in numerous occasions, basically identical to others as each folder was aimed at self-contained browsing

2. In general we ***found no broken links which is very good.***

As confirmed in our meetings, current plans are to significantly deepen/augment each webpage content to probably no less than 3,000 words per webpage. While it's too early to tell, using the ***interim design we were able to improve an initial Lipperhey review score of 33% to a current 46%!***



WHERE DO WE GO FROM HERE? LET'S ANTICIPATE SOME MOVES: METATAGS AND SPECIAL HTML INSERTS

While Google as of Oct 3, 2016 reports "We didn't detect any issues with the meta descriptions on your site."
The following code illustrate easy technical patches to be ONGOING applied to every webpage to increase SE friendliness

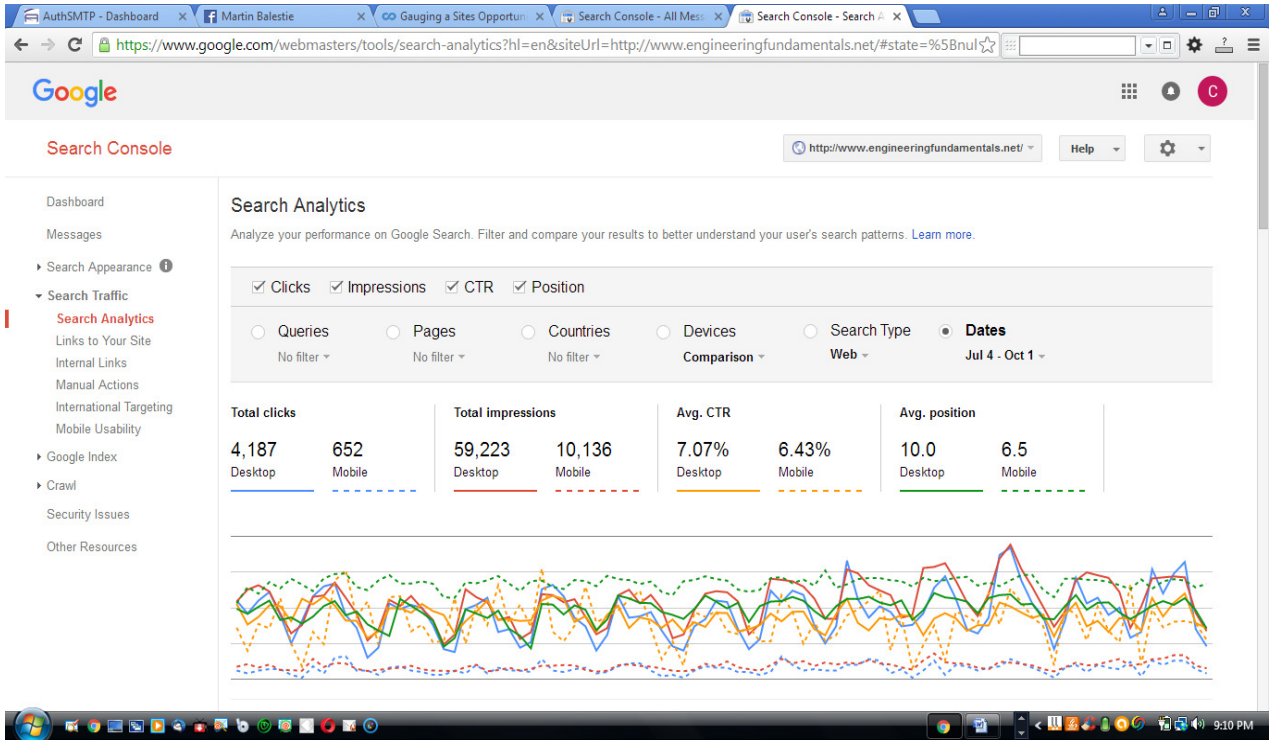
```
<head>
<meta charset="UTF-8">
<meta name="description" content="Free How To Tutorials">
<meta name="keywords" content="HTML,CSS,XML,JavaScript">
<meta name="author" content="James C. Young – Martin Balestie">
</head>
```

Other recommended to-be-tested features include: structured data, sitelinks, rich cards, and a number of other features.

OFF SITE CONSIDERATIONS

Our quick examination showed that there are opportunities for further qualified work in some of these areas:

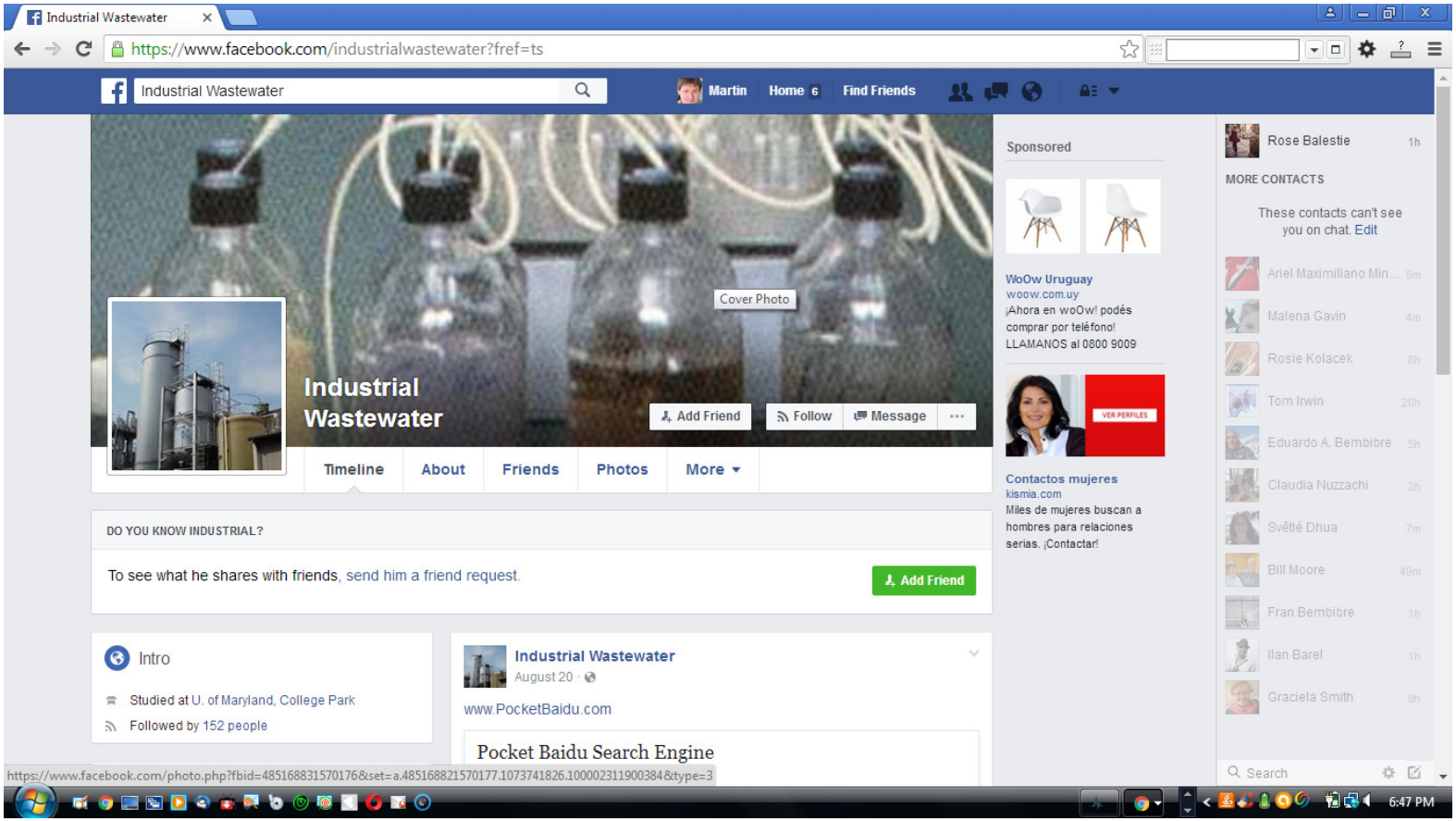
1. **BACKLINKS:** We agree that because of the nature of the series, it is very difficult to have corporations, universities and or technical societies to transfer authority to what is a say private sector, small co. online platform; however this may improve over time and ***has not deterred from Google high ranking quite a few series webpages (average 6 for mobile rank)***



OFF SITE CONSIDERATIONS

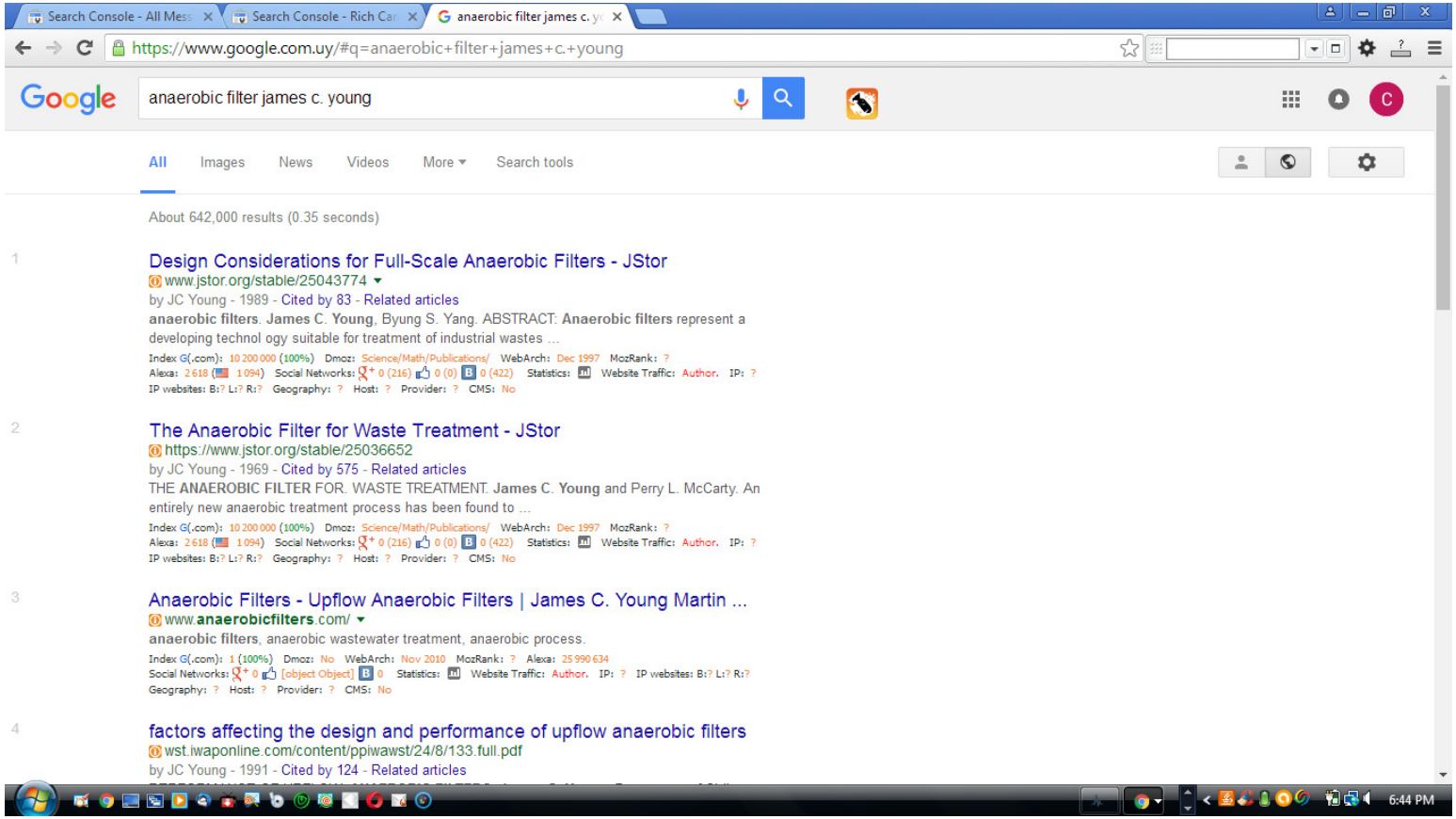
Our quick examination showed that there are opportunities for further qualified work in some of these areas:

2. **SOCIAL MEDIA:** we also agree that the topics/subject matter may not be what diversion/break looking FB audiences may want to see; all in all the inroads already made with FB, Pinterest, Instagram, Linkedin and some other platform should be sustained



OFF SITE CONSIDERATIONS (continued)

3. BRANDING CONTENT: The various tweaks we were able to do during the pilot study reflected ***increased Google responsivity*** when incorporating some sort of ***branding,*** be it little co. corporate denomination or identifying authors, id est. | Dr. James C. Young – Martin Balestie



DOMAIN LEVEL AND TECH CONSIDERATIONS

Following recommended industry practice we were able to experiment with a number of improvements which may explain why the aggregate signals from Lipperhey/GoogleAnalytics/Alexa improved and can be expected to improve as more and more technical tweaking takes places. Some of the introduced and tested items:

1. creation and submittal of ***xml sitemap*** (confirmed ***Google indexation of about one thousand pages***)
2. Further webpage developing sticking to ***domain folders*** rather than subdomain approach

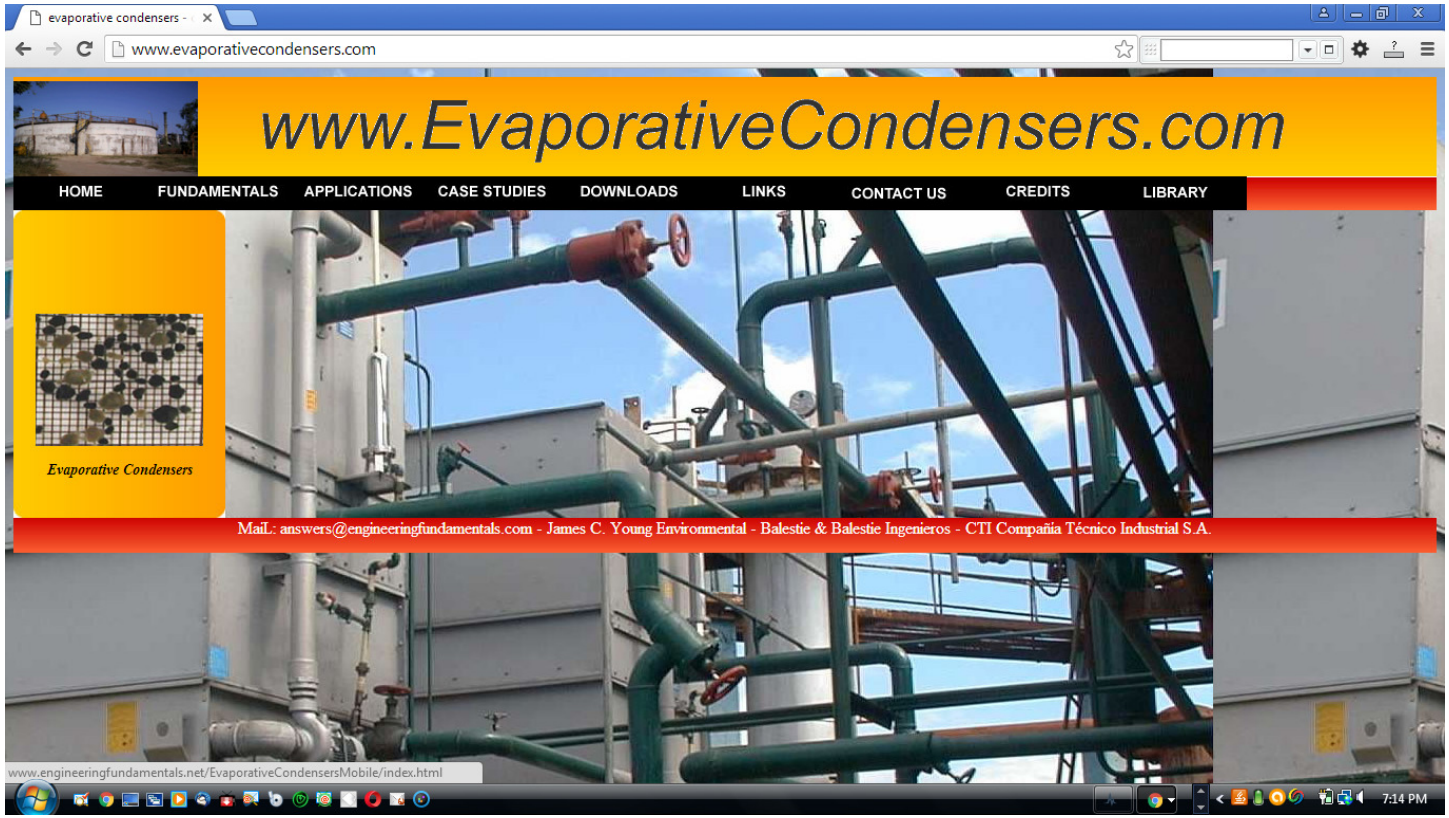


DOMAIN LEVEL AND TECH CONSIDERATIONS

3. Expanded menu options from 4 to 8 in the proposed new design in particular to include two key new entries, expanded numeric ***industrial case studies*** and a ***download section***

4. ***broken links and/or 404 issues were found to be negligible***

5. Incorporation of Robot.txt for better SE interaction



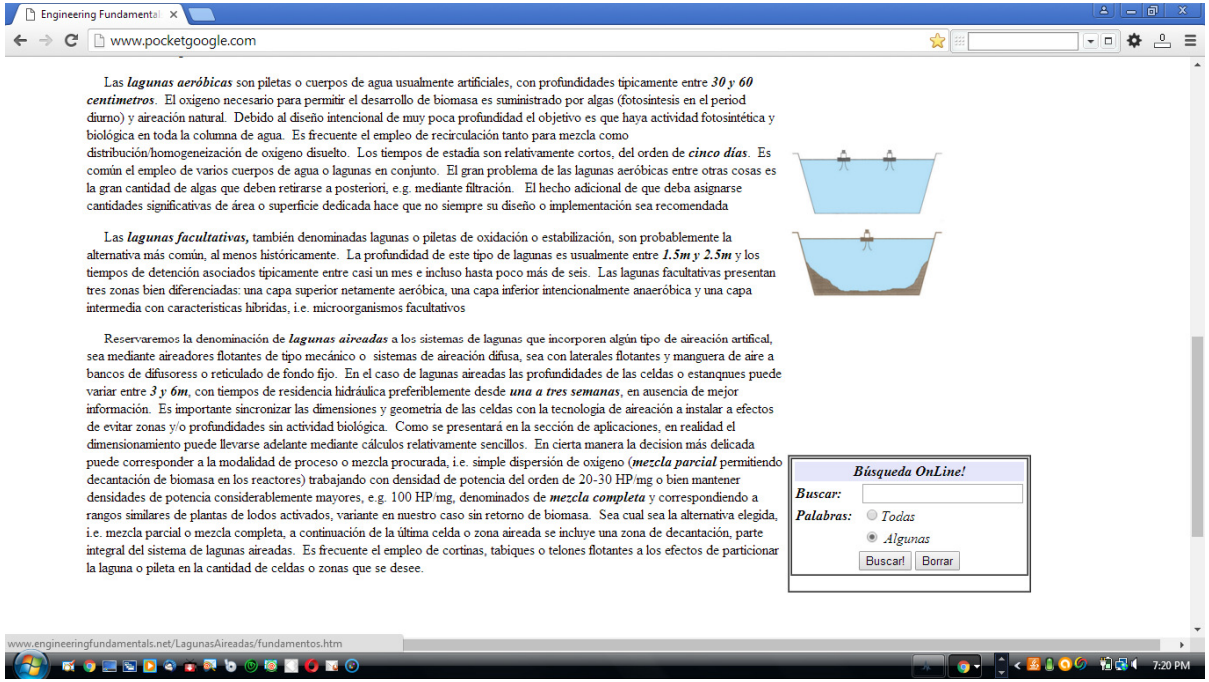
UNDERLYING CODING & TECHNOLOGICAL TOOLS/ RATIONALE FOR CHANGE & LOCALIZATION

1. While we could not label anything but a commendable effort, the present online platform, put together using simply albeit now ***dated hmtl editors***, must be lodged on new webpages using contemporary tools such as even early versions of Dreamweaver, e.g. 4 onwards.
2. ***All images should be reprocessed*** from the original Photoshop 4. files and reworked via specialized website image tools such as Fireworks, again e.g. 3 onwards.



UNDERLYING CODING AND TECHNOLOGICAL TOOLS/RATIONAL FOR CHANGE (continued)

3. It's a great thing that you have successfully experimented with tried and true ***CGI tools*** for added punch. While there are definitely additional tools available today for choice, we wouldn't recommend dismantling some CGI features until the whole series is well advanced in the other overall must prioritize improvements.



The following is a partial list/recap of perceived strengths & weaknesses

STRENGTHS

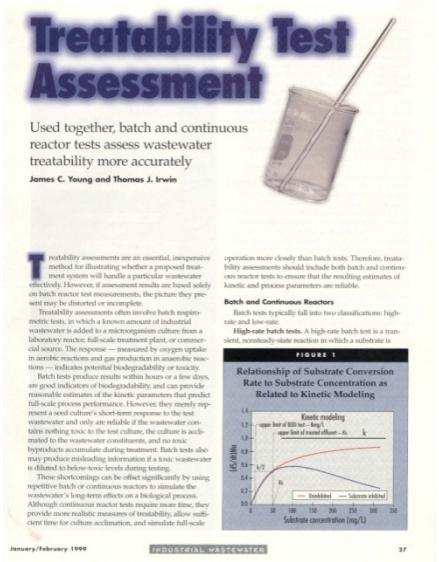
1. Real world content; solid gold content
2. Long standing presence; authoritative influencers
3. Field tested capabilities to implement/incorporate improvements, be them content, be them technical.

WEAKNESSES OR AREAS FOR IMPROVEMENT

1. Dated look and feel and as said, slated for immediate interim rework,
2. Difficulty in acquiring backlinks albeit if may not be due to the series but for the context or trade – to a certain extent due to the unusuality of platform – non-corporate/non-academic
3. Limited budget which restricts most inroads to be done digitally; it is felt that supplementing the series with off-line regional technical workshops would very likely boost most everything.

STRENGTH # 1: REAL WORLD CONTENT; SOLID GOLD CONTENT

Most of the published content was either co-authored along with Nummer Eins in their fields or transcribed from decades long of feedback emails. In fact, some of the professional material presented has not been published elsewhere as in some cases it has come from the pens of practicing engineers or manufacturers' recommendations.



Treatability Test Assessment

Used together, batch and continuous reactor tests assess wastewater treatability more accurately

James C. Young and Thomas J. Irwin

Treatability assessments are an essential, inexpensive method for illustrating whether a proposed treatment system will handle a particular wastewater effectively. However, if assessment results are based solely on batch reactor test measurements, the picture they present may be distorted or incomplete.

Treatability assessments often involve batch respirometric tests, in which a known amount of industrial wastewater is added to a microorganism culture from a laboratory reactor, full-scale treatment plant, or commercial source. The response — measured by oxygen uptake in aerobic reactions and gas production in anaerobic reactions — indicates potential biodegradability or toxicity.

Batch tests produce results within hours or a few days, are good indicators of biodegradability, and can provide reasonable estimates of the kinetic parameters that predict full-scale process performance. However, they merely represent a seed culture's short-term response to the test wastewater and only are reliable if the wastewater contains nothing toxic to the test culture, the culture is acclimated to the wastewater constituents, and no toxic byproducts accumulate during treatment. Batch tests also may produce misleading information if a toxic wastewater is diluted to below-toxic levels during testing.

These shortcomings can be offset significantly by using repetitive batch or continuous reactors to simulate the wastewater's long-term effects on a biological process. Although continuous reactor tests require more time, they provide more realistic measures of treatability, allow sufficient time for culture acclimation, and simulate full-scale operation more closely than batch tests. Therefore, treatability assessments should include both batch and continuous reactor tests to ensure that the resulting estimates of kinetic and process parameters are reliable.

Batch and Continuous Reactors

Batch tests typically fall into two classifications: high-rate and low-rate.

High-rate batch tests. A high-rate batch test is a transient, nonsteady-state reaction in which a substrate is

FIGURE 1

Relationship of Substrate Conversion Rate to Substrate Concentration as Related to Kinetic Modeling



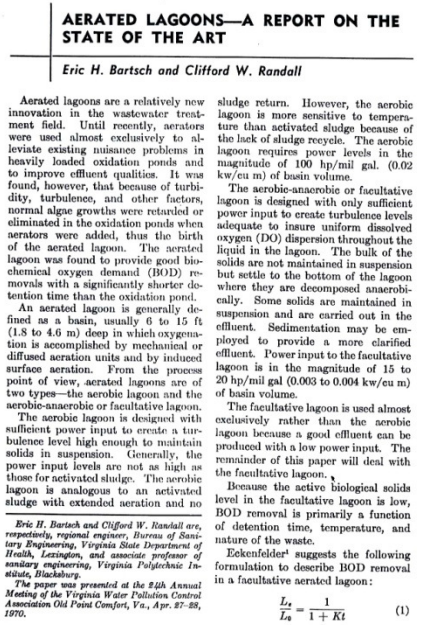
Consideraciones para el técnico de refrigeración

RESTAURACIÓN DE TORRES DE ENFRIAMIENTO DE FLUJO CRUZADO UTILIZANDO RELLENOS CONTEMPORÁNEOS DE TIPO CELULAR.

Ing. Martin Balestie, B.A.B.M./UMUC

ENUNCIADO DEL PROBLEMA ILUSTRATIVO:
restaurar, mediante la instalación de relleno de alta eficiencia, tipo celular, una torre de enfriamiento de flujo cruzado, reutilizando la estructura existente dada y enmarcar el nuevo equipamiento en condiciones de funcionamiento/operación de referencia.
RESOLUCION: De acuerdo a información extraída del catálogo original del fabricante (1), las condiciones de funcionamiento publicadas para la torre en cuestión son:
- calor Q a disipar 1.714608 kcal/h 6.750000 btu/h
- caudal de agua a enfriar 306180 l/h 1350.0GPM (U.S)
- temperatura del agua caliente 35.0° Celsius 95.0°F
- temperatura del agua fría 29.4° Celsius 85.0° F
- temperatura bulbo húmedo25.5° Celsius 78.0° F
- chiller tons 450 T.R . 450 T.R.

Podemos reconocer inmediatamente la fórmula clásica de disipación de calor, en sus expresiones IP/SI:
calor a disipar Q (btu/h) = caudal (gpm's) * salto térmico (° F) * 500
calor a disipar Q (kcal/h) = caudal (l/h) * salto térmico (° C)
nota: El lector podrá advertir que los factores de conversión entre las distintas unidades introducen pequeños, y a veces no tan pequeños, errores. Si bien se reconoce desde ya la relativa precariedad de este análisis, los resultados finales obtenidos son afortunadamente bastante definitivos.
Adicionalmente, a lo largo de este desarrollo se utilizan temperaturas en grados Fahrenheit y luego se convierten a Celsius. Al ser el Fahrenheit una unidad más "chica", el error de redondeo (habitual) en la décima de Fahrenheit influirá menos que el redondeo en Celsius.
Utilizando bibliografía especializada e información de diseño (2), incluiremos nuestro análisis a partir de las dimensiones de la estructura existente, aplicando recomendaciones de diseño y finalmente contrastando los resultados obtenidos con la información publicada. De acuerdo a información del catálogo (1), el largo L de la torre en la dirección de las persianas, y B, la altura del relleno están aproximadamente



AERATED LAGOONS—A REPORT ON THE STATE OF THE ART

Eric H. Bartsch and Clifford W. Randall

Aerated lagoons are a relatively new innovation in the wastewater treatment field. Until recently, aerators were used almost exclusively to alleviate existing nuisance problems in heavily loaded oxidation ponds and to improve effluent qualities. It was found, however, that because of turbidity, turbulence, and other factors, normal algae growths were retarded or eliminated in the oxidation ponds when aerators were added, thus the birth of the aerated lagoon. The aerated lagoon was found to provide good biochemical oxygen demand (BOD) removals with a significantly shorter detention time than the oxidation pond.

An aerated lagoon is generally defined as a basin, usually 6 to 15 ft (1.8 to 4.6 m) deep in which oxygenation is accomplished by mechanical or diffused aeration units and by induced surface aeration. From the process point of view, aerated lagoons are of two types—the aerobic lagoon and the aerobic-anaerobic or facultative lagoon.

The aerobic lagoon is designed with sufficient power input to create a turbulence level high enough to maintain solids in suspension. Generally, the power input levels are not as high as those for activated sludge. The aerobic lagoon is analogous to an activated sludge with extended aeration and no sludge return. However, the aerobic lagoon is more sensitive to temperature than activated sludge because of the lack of sludge recycle. The aerobic lagoon requires power levels in the magnitude of 100 hp/mil gal. (0.02 kw/cu m) of basin volume.

The aerobic-anaerobic or facultative lagoon is designed with only sufficient power input to create turbulence levels adequate to insure uniform dissolved oxygen (DO) dispersion throughout the liquid in the lagoon. The bulk of the solids are not maintained in suspension but settle to the bottom of the lagoon where they are decomposed anaerobically. Some solids are maintained in suspension and are carried out in the effluent. Sedimentation may be employed to provide a more clarified effluent. Power input to the facultative lagoon is in the magnitude of 15 to 20 hp/mil gal (0.003 to 0.004 kw/cu m) of basin volume.

The facultative lagoon is used almost exclusively rather than the aerobic lagoon because a good effluent can be produced with a low power input. The remainder of this paper will deal with the facultative lagoon.

Because the active biological solids level in the facultative lagoon is low, BOD removal is primarily a function of detention time, temperature, and nature of the waste.

Eckenfelder[1] suggests the following formulation to describe BOD removal in a facultative aerated lagoon:

$$\frac{L_t}{L_0} = \frac{1}{1 + Kt} \qquad (1)$$

Eric H. Bartsch and Clifford W. Randall are, respectively, regional engineer, Bureau of Sanitary Engineering, Virginia State Department of Health, Lexington, and associate professor of sanitary engineering, Virginia Polytechnic Institute, Blacksburg.

The paper was presented at the 24th Annual Meeting of the Virginia Water Pollution Control Association Old Point Comfort, Va., Apr. 27–28, 1970.

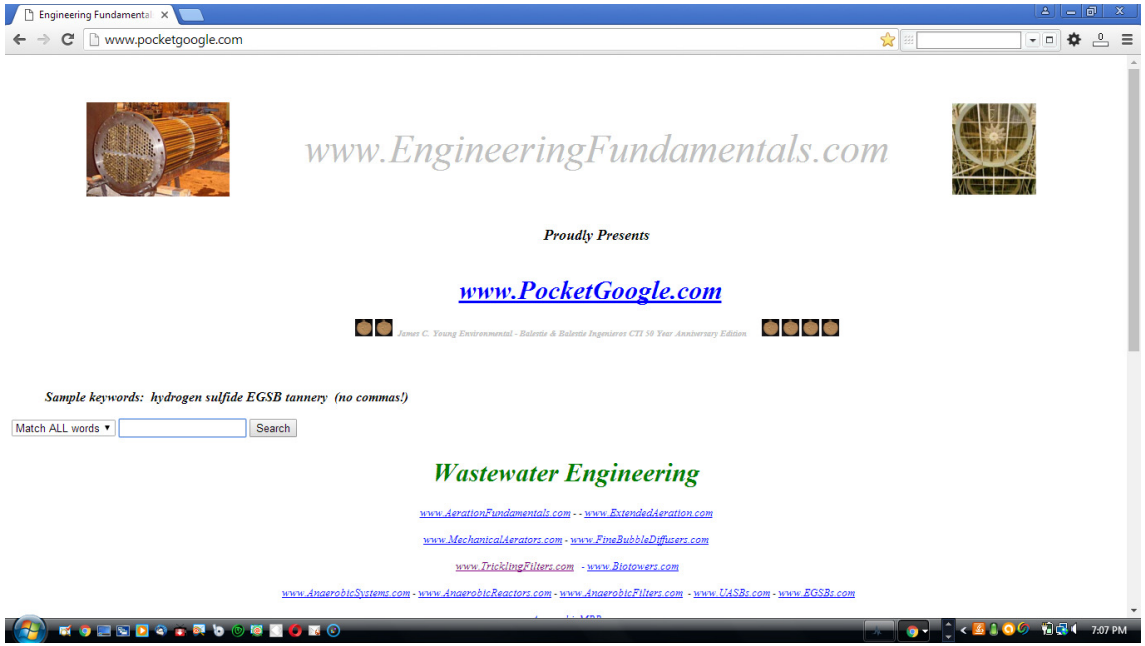
STRENGTH # 2: LONG STANDING PRESENCE; AUTHORITATIVE INFLUENCERS

Most of the online published content has resulted of long-term industrial, professional, and academic relationships. The "Time Will Tell" grilling technical examination was collectively tested thousands and thousands.



STRENGTH # 3 : FIELD TESTED CAPABILITIES TO IMPLEMENT/INCORPORATE IMPROVEMENTS, BE THEM CONTENT, BE THEM TECHNICAL

Because the whole thing as regards website development is basically do and try things, it can be said that the platform went paralelling the development of the Internet itself. We strongly believe the Pocket Series (Google/Yahoo/Bing/Yandex/Baidu/Naver), our give away search engines, have the potential to significantly boost traffic. ***Since we authored the content, maybe we can as well much better guide our readers as to how best search our content!***



6 min. Average Session Duration (at times!)

WEAKNESS # 1 : PRESENT LOOK AND FEEL (almost resolved …)

This item can be easily or swiftly addressed as it's just a matter of [porting the wealth of existing, authentic content to more contemporary design housing. It is acknowledged that many of the then valid tools such as Photoshop, Frontpage worked very well to collect and organize unique content that can now be easily cut and pasted to the interim platform.

While it can be said that the interim platform/prototype was rushedly implemented in a couple of months and still misses some important points the confirmed biggest gain in the overall migration is the ***confirmed mobile friendly test of probably 800 of the 1,000 webpages formally indexed by Google.*** What this translates is that while the desktop average ranking hovers about the 9 – 10 place, the mobile editions hover on average around the 6th place in the ranking. It is felt that this rushed action favors more than detracts the performed interim migration. ***Our current feeling is that Google would be simply short-changing their audience by not ranking our miniwebsites high. We have tested this off-line for decades!!***

We feel that by launching an interim, separate, mobile friendly version, and still updating the old series, given the earned high rankings albeit not passing mobile friendly tests, is the best bet to go even at the risk of duplication. We believe juice transfer will occur and ***the most updated webpages will prevail over the long run.*** This latter attribute is something we can control (QDF!)

WEAKNESS # 2 : LACK OF BACKLINKS

This is a surprising item. Although we're all aware of the almost total backlinks, Google and for that matter other search engines such as Bing and Yahoo have ranked ***many of the webpages within top 3 or top 5 and even # 1 spots.***

What we see is why would some entity link to the collection? Let's comment this piecemeal.

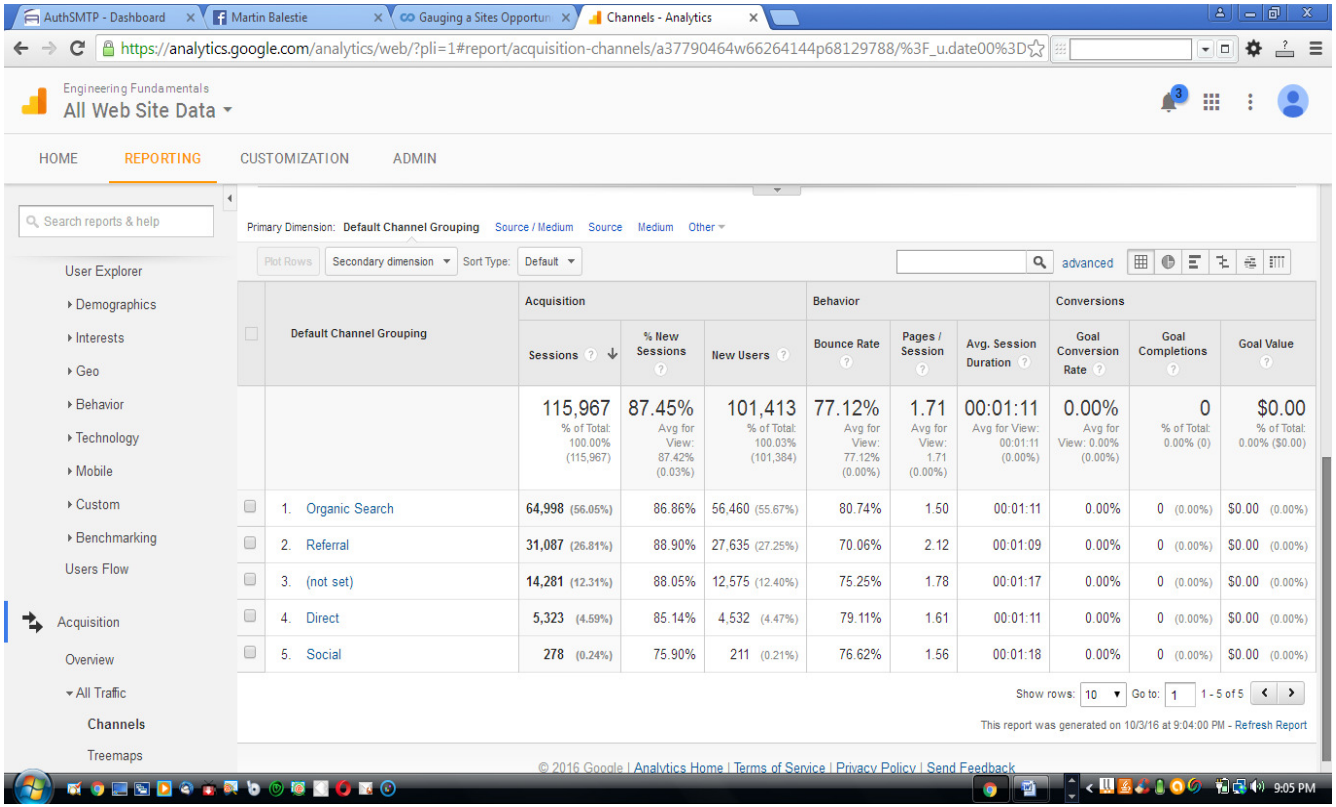
Why would an university link to our collection? Universities are run by say academic people, why would they transfer authority to what it amounts to a smallish cooling tower manufacturer and an industrial treatability lab? It looks as if too much authority was granted …

Why would a corporation link to our series? I would say rightly or wrongly many corporations are self-centered and think the way to go is proffering commercial brochures and that's it. Linking to our collection would be like presenting us with advertising paid by their company, or as with top schools, extending us authoritativeness.

Why would technical societies link to our series? Well they probably want to solely publish and sell their own stuff so why point to free stuff which in some cases may be far more comprehensive than the frequently "pilot study finds" of many articles. Our stuff comes from the real thing. So Links Verboten!

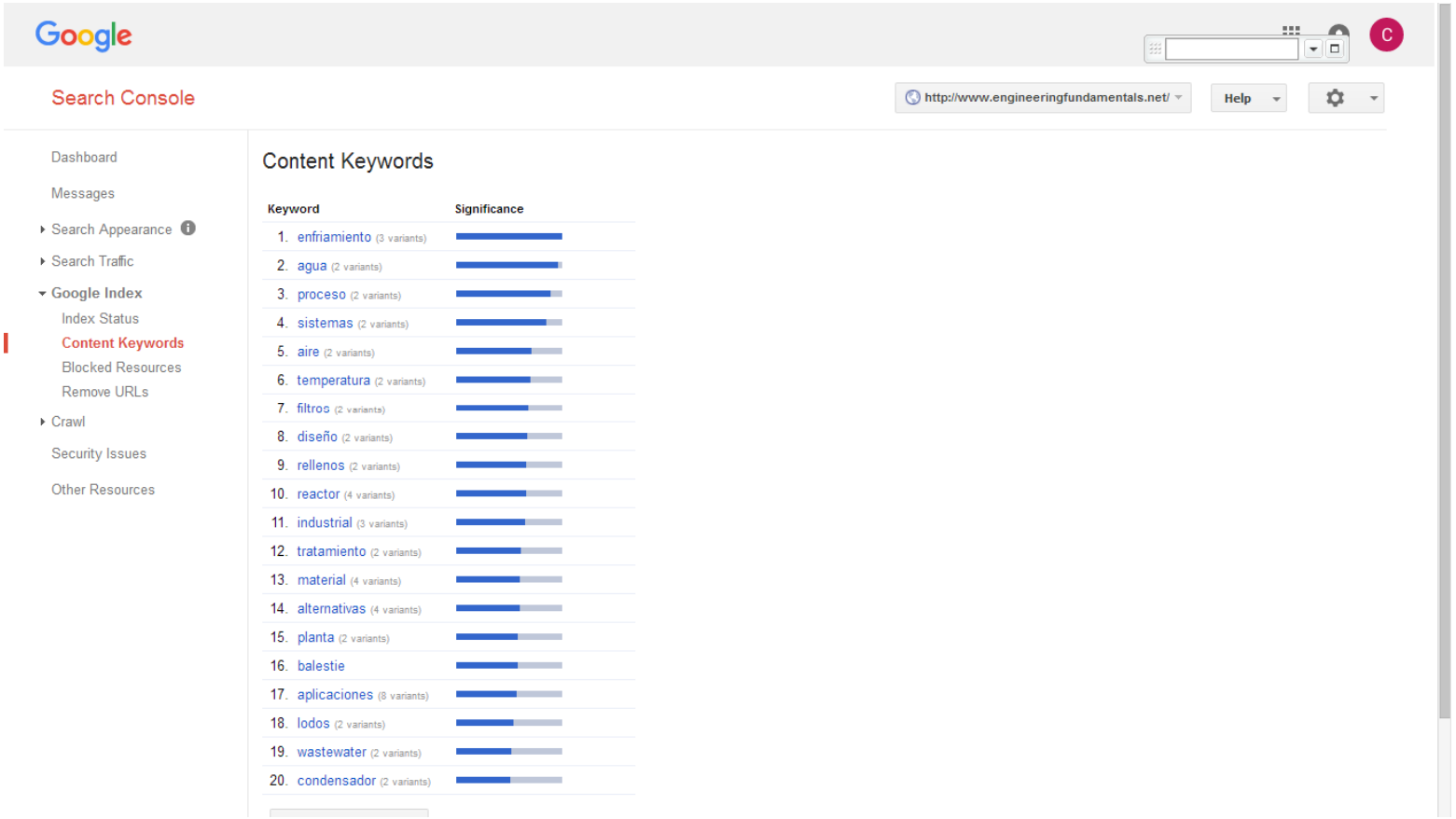
WEAKNESS # 3 : SMALL BUDGET & OFF-LINE MEASURES

It is felt that were the firm able to stage 10 major city 4-hour technical workshops again, both the rankings and bottom line would significantly expand. Google Analytics tells us that ***every month*** the series able to attract about ***1,400 new unique readers***. That's just about one percent the digital prospection platform monthly figures and still we see some degree of [desktop due?] stagnation.



KEYWORD USAGE CONSIDERATION

1. We anticipate further improvements by shifting (or at least supplementing given the numerous premium domains available), the past series design criteria/emphasis on ***highly competed for keywords to the more traffic supportive so-called long tail keywords***



SO …WHERE DO WE GO FROM HERE?

After conducting this 6-month long hands on assessment and trials we feel confident to recommend pursuing/ retaining another like site optimization effort.

It is felt that most pending obstacles will be gradually resolved and will enable to strongly concentrate on what we would probably call the business model side of the series, aside from possible website performance indicators such as received emails, spent time on site, number of pages per visit, bounce rates, and other .

We feel that given contemporary tools available, little by little most pending issues will be solved. Never before was the 1,000+ page platform submitted to scrutiny.

One would then be able to more confidently state goals in more definitive terms such as “increase leads generated through organic search traffic by 25% by the end of 2017.” But then this would have to be in close agreement with an accompanying business plan. Thanks for funding our studv!

1. What was the reason/goal to initiate an online series?
   Many years ago we realized the potential and savings of the Internet so we started switching both our content (for self use!) as well as promotional efforts. Basically our ***goals for the website series*** are
   a. increased regional visibility,
   b. increased user awareness of technical nuances,
   c. online authority build-up and
   d. audience borrowing as feasible both readers and sales.

   Over the years we have started to use the published information for our own use as well. If properly done, organizing our own stuff digitally proffers faster/easier retrievals of past calcs. That's one of the reasons we went further and developed the Pocket series, a collection of give away, to-be-localized search engines.

2. Who's your [trade] competitor?
   There are literally thousands of manufacturing competitors worldwide. However, for some reason it's a business trade many owners prefer to buy local. It's frequently when the price tag swells that a number of part-time firms surface. To a certain extent, we're looking forward to team up with a larger firm for regional jobs.
3. Who's your [organic traffic] competitor?
   To be frank, while we do see shared ranking spots, to this date we do not know any other firm that has engaged into a like course of action, id est publishing an in-good faith technical primer series. So at times, many of our webpages rank side by side with scientific publications albeit when it you take a close look at them, most of them are just open ended entries and no real world case studies or calculations.
4. What was your past experience with other approaches?
   For a number of years we did a lot of regional direct mail. For example it took about two to three weeks to prepare a batch for say 400 mailing pieces. We also tried a little bit of regional printed matter advertising. Another approach we tried was sending product videos for a number of key accounts. So the move to Internet was well timed.
5. What kind of problems you faced in the past?
   I would say the most significant problem we had and still have is that our virtual platform has outgrown our small business possibilities. What I mean is that we're able to digitally prospect a whole continent but we cannot always properly handle a lead or a RFQ (request for quotation). Because the overarching goal of the series is to create visibility and awareness this is not so much of a problem. However, we would like to put all these leads to work, so to speak. In general we have found it difficult for HQ (headquarters) to provide much support aside from say (ouch!) unusuable commercial brochures.

6. What is your experience with pictorial or video platforms such as Pinterest and YouTube?
   We launched a number of Pinterest board pointing back to some of our domains. We also uploaded a short video featuring a mechanical aerator and including a caption like "Courtesy of

MechanicalAerators.com" That's right! We believe in an army of e-ants approach and the Internet is a great way to do it!

7. What's your experience with blogs?
   To our taste, the early practice of blogs gave them a bad name. The problem with many blogs is that they just look like blogs and that is not always helpful. Even using established tools like WordPress seem to short change user's firepower and long-term progress.

8. What do you think would be measures of success for our aggregate efforts?
   RFQs. RFIs. Sales. Phone calls. We could of course look at standard metrics but we would have to be careful as meaningful correlation is difficult even off-line!

9. What are your [unfulfilled] future plans?
   We'll that's something that I guess will have to be answered in the second leg of this scrutiny. Right now, I see many changes were introduced and improvements occurred. My idea is that some of the other improvements will recommend sleeping it over before proceeding. I guess we would like to first see the impact of the Pocket give aways while honing and updating copy.

10. What changes you have seen over time as regards Google Analytics?
    While we have seen our webpages go up and down at times without much rationale, over time we have observed decreasing bounce rates, increased average session duration, and increased pages per session. When we introduced www.PocketGoogle.com, and examined its referrals performance, we were able to measure 6 minute average session duration, an all-time record. This gave us a hint to proceed in the give away search engine approach for other locales, e.g. China, Russia, Korea, even being at the greenest of stages.

11. Pending problems?

    One of the problems we had, still have, is how to properly setup the site/domain/html code to avoid the www versus non www "dilemma". We have tried adjusting the htaccess file, going also to Google and indicate our preference for the www but still we're getting "errors" from Lipperhey as incorrect setting.

    Another problem we have is that a number of our webpages feature Excel calcs/spreadsheets which span more than what would be available using a mobile. Some of these valuable webpages have been labeled mobile unfriendly but we see no way how to solve the problem. Either we drop the unique calcs (we're not) or let what are mostly Applications webpages be flagged as unfriendly.

    We plead guilty of numerous sins. For ages we never had a sitemap and didn't know we were supposed to have one. Also, I guess we almost never thought about metadata. We never used

H1s or anything like that. I'm sure there are quite a few other but many of these "oversights" have been taken care of or will be taken care of.

We also realized we placed an overemphasize on domains. This was actually resulted from what was done in the early days, or at least how we got started. Back then, one possible approach was to manage a number of what we called mnemonic domains – today they would be called premium domains – and each domain would forward to a specific folder hosted somewhere else (e.g. Homestead.com at that time). Thus you would have several domains pointing to some other domain hosting – we would mask the forward and nobody would notice where the content was lodged. However, the way Google operates today, goes against this grain so to speak. What Google does is basically rip off your "booklet like " organization just keeping what they believe are the best pages and basically dumping the rest – a kind of poach hunter approach and well for them.

12. What about backlinks?

Because of the unusual nature of the series, we have found it is very difficult to have corporations, universities and or technical societies spontaneously agree to transfer the authority that accompanies backlinks to what is essentially say a private sector, small co. online platform. However, this may improve over time and ***has not deterred from Google high ranking quite a few series webpages (average 6 for mobile rank).***

Why would an university link to our collection? Universities are run by say academic people, why would they transfer authority to what it amounts to a smallish cooling tower manufacturer and an industrial treatability lab? It looks as if too much authority was granted …

Why would a corporation link to our series? I would say rightly or wrongly many corporations are self-centered and think the way to go is proffering commercial brochures and that's it. Linking to our collection would be like presenting us with advertising paid by their company, or as with top schools, extending us authoritativeness.

Why would technical societies link to our series? Well they probably want to solely publish and sell their own stuff so why point to free stuff which in some cases may be far more comprehensive than the frequently "pilot study finds" of many articles. Our stuff comes from the real thing. So I guess we can live with the Backlinks Verboten for the time being!

13. How about social media, the likes of Facebook and others?
    I guess the topics/subject matter may not be what diversion/break looking FB audiences may want to see. However, being loyal to our army of ants approach, we look forward to all in all sustain all the inroads already made with FB, Pinterest, Instagram, Linkedin and some other platform. It doesn't hurt to have yet another "trap."

14. Why did you decided to hire us to conduct the pilot study?

Frankly we were very much puzzled when we examined Google Analytics. For some reason that's still unclear to us, our collection experimented a nice success growth throughout 2014 – we still have to beat those figures today, broadly speaking. It may be that it was about that time that our digital prospection started to be more of a mainstream with us but the fun thing is that we're talking about the dated look and feel. Traffic to our site was 2/3 referrals from our own domains and 1/3 from organic search. Today we have something like 2k/month from organic search and 500 from own domain referrals so even with all the snags, ups and downs there seems to be an overall betterment of things. Early this year (2016) when we started to pour in changes we saw our Alexa rating improve significantly. When we stopped introducing changes the Alexa rank dropped significantly.

15. Do you have any legacy gimmicks?

No. From the beginning we avoided Flash. We also discarded ill-advised frames. There are some minor things left such as some inline styles and style blocks in some webpages but will be taken for little by little. Also, some of them have higher than recommended image per page ratios. This is the first time ever we're conducting a qualified scrutiny of the series.

16. Let's talk a little bit about keywords. How are you tracking keywords?

We agree that we have to supplement our original design criteria with hand-crafted long tail keywords. Probably that will be our most crucial long-term mission on earth. Because we're a very small firm keyword tracking is done from time to time more along the lines of let's take a sample every done and then w/o much further emphasis. This is a sample from a recent, automated keyword variant assessment for our domain www.MechanicalAerators.com

mechanical aerators lawn
mechanical aerators pdf
mechanical surface aerators
floating mechanical aerators
low speed mechanical aerators
types of mechanical aerators
mechanical aerators
mechanical aerators wastewater treatment
mechanical aerator bunnings
mechanical core aerator
mechanical core aerator rental
mechanical core aerator for sale
mechanical grass aerator
mechanical garden aerator
mechanical aerator hire

mechanical lawn aerator hire
mechanical aerator price
mechanical pond aerator
mechanical plug aerator
mechanical sewer aerator pump
design of mechanical surface aerators
mechanical aerator wastewater
mechanical water aerator

When developing the new, interim platform, special care was take to enter like variants in tags, e.g. title, headings, etc.

17. What are your present digital assets? Are we looking to expand this resources section?
    Definitely! We were not aware of the importance of Instagram and Pinterest. We have tons of visual content. In fact, I believe right we have enough content of any time to monthly launch or re-launch/re-purpose no less than 4 years of stock inventory.

17. Who's your audience?

    On the one hand, we have a small [local] engineering partnership with small cooling tower manufacturing facilities going by the name of CTI Compañía Técnico Industrial S.A. While it's a really small family company, we have been lucky to stay in business for over 50 years. Most of our customers are the local subsidiaries of well-known industries, e.g. Weyerhaeuser, Akzonobel, Linde Gas, as well as Sheraton, World Trade, among others. To follow recommended local business domain association, the current website for the small partnership is www.CTIMontevideo.com which just forwards to a Facebook company profile. Until we were to think some smart or unique approach we decided NOT to follow mainstream practice of featuring a 4 o 5 page small company website with little or no content at all aside from company data. We also found that almost anyone googling for variants of CTI Compañía Técnico Industrial (e.g. CTI Compania Tecnico Industrial) easily ends up with several entries in the first page list so it's basically working as initially intended, basic Google look-up.

    On the other hand and over the years, rather than spend resources only on a local range website/local business, we thought wiser to port some or most of our case studies or recommended practices to an online primer platform. This global platform was started about 16 years ago and has evolved into what is today an online primer series of about 50 or 60 independent miniwebsites in three languages (we dropped German) such as www.TricklingFilters.com and www.EvaporativeCondensers.com For the time being, the goal of this series is to simply reach a broad as possible audience. Because we can truly say we have authored most content with the help of great masters in their fields, we also decided that we could also give away something our worldwide readers could use to much better locate the

information they're looking in our files. Thus about six months ago we launched our own …. www.PocketGoogle.com

Because we have received both off-line and on-line feedback (plus analytics data) a large number of students and practicing professionals read our online primers. By design, the goal of the series is to not necessarily proffer sales. At one time we would receive one or two requests per day for help in projects, some study projects, some for real world projects, say how do we deal with selenium from mining activities. I would say, using our off-line data, that we have basically four types of readers (reinforced targets), as follows:

a. Manufacturing/process plant engineers: as they are directly related to production, they tend to be very attentive and take into account every possible piece of advice; they tend to go by the science once it's told to them
b. Students are very eager consumers of qualified content; every now and then we personally coach undergrad or grad students doing their thesis and projects; porting quite a few supportive documents online helps them go over the stuff at ease and the whole series is gradually becoming very popular
c. HVAC engineers: tend not to abide by science; as air comfort is the attempted goal no bones are broken; while most systems are HQ sized plus a lot of local undersizing we don't give up to online lobby for recommended practice
d. Environmental engineers/professional place third in the ranking as this is where most heresies are committed, whether willingly or unwillingly, as with air conditioning engineers we don't give up to online lobby for recommended practice

We mostly receive request from Spanish speaking countries say some 37% aggregate but our English US readers has increased to about 22% and growing so we will be revamping the whole inch pound series.

18. Have you had problems with algorithm penalties?
Not that we know of. I guess we were never that big!

19. What are your most important products and services?
We have a local business plan that caters for industrial cooling towers – we make them. I guess we can call them our flagship product. For beyond borders jobs we thought best to promote rare design engineering services for industrial wastewater.

20. Let's go back and tell me a little bit more about backlinks.
Yes. As I have stated earlier, over the years we have found that acquiring links from reputable or authentic parties was treading slippery road so we banked our initial strategy on mutual linking from our own domains. While this may be interpreted as maneuvering around it's actually the best way to provide information without using anchor texts. In our approach, anchor text have to be used very carefully as there are hundreds of pages involved and maintenance, unless things are done piecemeal, can become unhandleable.

By sticking to consistency in many ways (e.g. improved look and feel; authoritative/genuine content; real world images from actual jobs; added functionality as per the give away search engine tool and say new planned download section; recently incorporated search engine friendly traits (titles, h1, no broken links); some more interspersed branding;) we have started to see a number of websites and newsletters pointing to some of our domains or webpages so it's spontaneously happening albeit slowly. Folks are linking to our in-good-faith primers and guides genuinely and that's the way to grow.

We have found that professional associations and institutional websites tend to dislike transferring link juice or authority to private sector players. So we simply let it be and look elsewhere for example strictly spontaneous back-links such as private sector local industry guides, regional yellow pages (they will include your basic company for free even without our asking!). So there's plenty of free resources.

Some other paths we have seen cropping up is back-links for blogs and student thesis. So I would say the back-link issue is being gradually solved by no better judge than our audience. No better endorsement but directly from the users.

21. Let's talk a little bit about content.

    You will notice, by design, most if not all our content is evergreen. We used to called it static and that's why we embraced simple html designs. We saw no reason for dynamic pages until we started toying wit the ideas of proffering searching within the collection. We adapted two CGI features and saw pages per session increased. When we monitored the Pocket figures we were amazed to see 6 minute session duration! Typical stays are usually 1 – 2 minutes.

    Another we have been working lately is content or copy if you wish. Because a number of the sites share a common background, some of them share portions of the fundamentals or applications or both. As we look forward to deepen page depth, say probably to about 3,000 word, we look forward to do this by including second or third iteration hard/"pro" calculations. We have been consolidating datasets from our archives say reviewing six recent major end-to-end, step-by-step calculations for a number of industrial users, e.g. some dairies, cattle abattoirs, other.

22. Some other technical items/issues you would like to comment.

    When the sitemap was submitted early this year, we noticed Google noticed and indexed about 1,000 pages. There were basically no 404 issues or other. Download speed does not look to be a problem although we look forward to reprocess all Photoshop images using Fireworks or some equivalent. The great thing is a good many of the new interim platform webpages pass Google's mobile friendly test and it was basically done inserting a single line of code.